

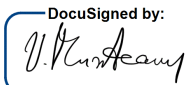


United Nations Development Programme  
Annotated Project Document template for projects  
financed by the Green Climate Fund  
December 2024

<b>Project title:</b> Scaling up climate resilient flood risk management in Bosnia and Herzegovina	
<b>Country(ies):</b> Bosnia and Herzegovina	<b>Implementing Partner (GCF Executing Entity):</b> UNDP Bosnia and Herzegovina
<b>Execution Modality:</b> Direct Implementation - DIM	
<b>Contributing Outcome (UNSDCF/CPD, RPD, GPD):</b> <i>Outcome 1: 2025, people benefit from resilient, inclusive and sustainable growth ensured by the convergence of economic development, and management of environment and cultural resources.</i>	
<b>UNDP Social and Environmental Screening Category:</b> Moderate	<b>UNDP Gender Marker:</b> GEN2
<b>Quantum Award ID:</b> 1306942	<b>Quantum Project/Output ID:</b> 01003140
<b>UNDP PIMS ID number:</b> 6360	<b>GCF Project ID number:</b> FP216
<b>LPAC meeting date:</b> 24 September 2024	
<b>Actual start date:</b> 15 October 2024	<b>Project completion date:</b> 15 October 2030
<b>Interim Evaluation Report (a.k.a. Mid-Term Review) deadline for submission to GCF:</b> 15 January 2028	<b>Final Evaluation Report (a.k.a. Terminal evaluation report) deadline for submission to GCF:</b> 15 April 2031
	<b>Project Completion Report deadline for submission to GCF:</b> 15 January 2031
<b>Operational Closure Date:</b> 15 January 2032	<b>Financial Closure Date:</b> 17 July 2032

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<b>Brief project description:</b> The objective of the project is to address increasing vulnerability of B&H communities and livelihoods to intensified climate-induced flood-related disasters. The project will establish an integrated and innovative gender-responsive climate-resilient flood risk management (FRM) approach, strengthen institutional, technical, and financial capacity to implement long-term FRM strategies, including a combination of structural and non-structural measures and ecosystem-based approaches. The project will strengthen the use of climate information, flood forecasting, early warning, and emergency response systems to enhance adaptive capacity and resilience of at-risk communities. The project is aligned with the new UN multi-partner initiative "Early Warnings for All (EW4All)" announced by the UN Secretary-General in March 2022 with the aim to promote universal coverage of the early warning and will contribute to the implementation of EWS4All Executive Action Plan developed in March 2023.		
<b>FINANCING PLAN</b>		
GCF grant	USD 14,400,000	
UNDP TRAC resources	USD 300,000	
Confirmed cash co-financing to be administered by UNDP via Joint UN Programme "Disaster Risk Reduction for Sustainable Development in Bosnia and Herzegovina-Phase II"	USD 500,000	
1) Total budget administered by UNDP	<b>USD 15,200,000</b>	
<b>CONFIRMED CO-FINANCING COMMITTED TO THE FUNDED ACTIVITY (AS DEFINED IN THE FAA)</b>		
Ministry of Agriculture, Forestry and Water Management of Republika Srpska (MAFWM RS)- EIB Loan	USD 21,110,000	
Ministry of Agriculture, Forestry and Water Management of Republika Srpska (MAFWM RS)	USD 3,890,000	
Ministry of Foreign Trade and Economic Relations (GCF Focal point) (MOFTER)	USD 5,555,556	
Ministry of Spatial Planning, Civil Engineering and Ecology of Republika Srpska (UNFCCC Focal point) (MSPCEE)	USD 300,000	
Water Agency for Sava River Basin, Sarajevo (WA Sava)	USD 16,000,000	
Water Agency for Adriatic River Basin, Mostar (WA AB)	USD 5,000,000	
Power Company of Republika Srpska, Hydro Power Plant (HPP)	USD 5,000,000	
Re-insurance company Bosna RE (Bosna RE)	USD 333,333	
Association of Insurance Companies FB&H (AOIC)	USD 300,000	
2) Total confirmed co-financing that is not administered by UNDP	<b>USD 57,488,889</b>	
3) Grand-Total Project Financing (1) + (2)	<b>USD 72,688,889</b>	
<b>SIGNATURES</b>		
<b>Signature:</b>  <b>Victor Munteanu, UNDP Officer in Charge</b>	<b>Agreed by UNDP</b>  DocuSigned by:  43E3E9E8FE6F4F9...	<b>Date/Month/Year:</b>  24-Dec-2024



**Disbursement:** Government is aware of the conditions of disbursement ascribed to the first and subsequent tranches of the GCF funding as specified in the FAA (and in particular Clause 9 of the FAA, as referenced in the Financial Management Section of this Project Document). To the extent that these obligations reflect actions of the Government, the Government must ensure that the conditions are met and there is continuing compliance, as well as understanding that availability of GCF funding is contingent on meeting all conditions listed in the FAA.

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**Acronyms and abbreviations**

AoIC	Association of Insurance Companies FB&H
APR	Annual Performance Report
APR	Annual Performance Report
NAP	National Action Plan
BPPS	Bureau for Policy and Programme Support
BPPS	Bureau for Policy and Programme Support
CBA	Cost Benefit Analysis
CBEWS	Community Based Early Warning System
CEFP	Community Emergency Flood Preparedness Plans
CPD	Country Programme Document
DIM	Direct Implementation Modality
DOA	Delegation of Authority
DRAS	Disaster Risk Analysis System
DRR	Disaster Risk Reduction
EbA	ecosystem based approach
ECMWF	European Centre for Medium Range Weather Forecasts
EIB	European Investment Bank
EIRR	Economic Internal Rate of Return
ESIA	Environmental and Social Impact Assessment
ESMP/ESMF	Environmental and Social Management Plan or Framework
EW4All	Early Warning for All
FAA	Funded Activity Agreement
FbF	Forecast Based Financing
FFEWS	Flood forecasting and early warning system
FP	Funding Proposal
FRM	Flood Risk Management
GAAP	Generally Accepted Accounting Principles
GBON	Global Basic Observing Network
GCF	Green Climate Fund
GCF	Green Climate Fund
GCF Sec	Green Climate Fund Secretariat
GDP	Gross Domestic Product
GIS	Geographical Information Systems
HACT	Harmonized Approach to Cash Transfers
HPP	Hydro Power Plant
IBF	Impact Based Forecasting
IFRC	International Federation of Red Cross and Red Crescent Societies
IRMF	Integrated Results Management Framework
ITAP	GCF Independent Technical Advisory Panel

ITAP	GCF Independent Technical Advisory Panel
LDCF	Least Developed Countries Fund
LPAC	Local Project Appraisal Committee
MAFWM RS	Ministry of Agriculture, Forestry and Water Management of Republika Srpska
MHEWS	Multi Hazard Early Warning Systems
MIA	Minamata Initial Assessment
MoFTER	Ministry of Foreign Trade and Economic Relations
MSPCEE	Ministry of Spatial Planning, Civil Engineering and Ecology of Republika Srpska
NAPA	National Adaptation Plan
NBSAP	National Biodiversity Strategies and Action Plan
NC	National Communications
NCSA	National Capacity Self Assessment
NIP	National Implementation Plan
NPV	Net Present Value
NWP	Numerical Weather Predictions
PB	Project Board
PCAT	Partner Capacity Assessment Tool
PFM	Public Financial Management
PFRA	Preliminary Flood Risk Assessment
POPP	Programme and Operations Policies and Procedures
POPP	Programme and Operations Policies and procedure
PRA	Portfolio Risk Assessment
SBAA	Standard Basic Assistance Agreement
SCCF	Special Climate Change Fund
SEA	Sexual Exploitation and Abuse
SESP	Social and Environmental Screening Procedure
SOP	Standard Operating Procedures
SSC/TrC	South South and Triangular Cooperation
TAWG	Technical Advisory Working Groups
TBWP	Total Budget and Work Plan
TNA	Technology Needs Assessment
TNC	Third national Communication
ToC	Theory of Change
UNCBD	United Nations Convention on Biological Diversity
UNCCD	United Nations Convention to Combat Desertification
UNDAF	United National Development Assistance Framework
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UNSDCF	United Nations Sustainable Development Cooperation Framework
WA	Water Agency

WBIF	Western Balkans Investment Framework
WMO	World Meteorological Organization
WRF	Weather Research and Forecasting
WTP	Willingness to Pay

## II. DEVELOPMENT CHALLENGE

1. Climate change in Bosnia and Herzegovina (B&H) has been observed through continuous rise of the mean annual temperature and significant seasonal and spatial changes in precipitation, that have become more pronounced over the last fourteen years. As a result of these changes in climate, years with damaging floods have become very common. The Third National Communication (TNC) shows that the temperature is expected to increase further until the end of the 21st century, and the variability of rainfall regime and extreme precipitation will further intensify under warmer climate conditions.

2. Approximately 26% of the B&H population is highly vulnerable to climate change induced flood risk. The increasing intensity and variability of rainfall driven by climate change have been causing more frequent and intensive floods resulting in significant impacts on people, their property and critical infrastructure. The most important economic sectors at risk include agriculture, water management and hydropower. Between 2006 and 2012 flooding accounted for 62% of damages from all-natural disasters in most of the B&H territory. In 2010, the second largest flood on record resulted in damages of USD 200 million or approximately 1% of GDP. In May 2014, Bosnia and Herzegovina experienced its worst flooding in 150 years which affected 25% of its territory and resulted in 26 deaths and USD 2.7 Billion worth of damages (15% of GDP). The most damaging floods have had devastating impacts on the most vulnerable groups including the rural poor, war returnees and displaced persons who generally occupy the cheapest and most risk-exposed land on the floodplain. For example, in several municipalities up to 100% of affected households have been identified as war returnees or displaced persons and are least equipped to cope with and recover from floods. This has led to a deepening of poverty in flood affected areas. The 2014 flood was the most extensive, affecting 5 of the 7 major rivers, compared to previous floods which generally impacted only 1 major river. In the last two decades, B&H experienced 10 major flood events (2001, 2004, 2006, 2009, 2010, 2014, 2017, 2018, 2019, 2020), compared to 8 major flood events in the preceding 75 years (1925 to 2000). In each of the last four years 2017, 2018, 2019 and 2020, flooding occurred in at least two of the seven major river basins. Socio-economic and climate risk modeling conducted during the feasibility study, demonstrate that by mid-century, due to climate change, 13% more people would be affected by floods leading to 12.5% higher losses of household assets compared to baseline scenario.

3. In the baseline scenario, without the Project the lack of technical, institutional, and financial capacities to implement and maintain a fully integrated flood risk management framework will continue to result in limited (in terms of accuracy, skill, and spatial extent) flood warnings not reaching the communities who are most affected by flood hazards, in a timely manner. The absence of comprehensive and definitive flood risk information and legislative and policy framework will continue to exacerbate weak land use, spatial planning, and climate risk management, leading to increased exposure of communities to damages, losses and loss of lives. In addition, a lack of institutional and financial capacities and modern technologies will prevent the design of climate risk informed mitigation measures. The large proportion (26%) of the population at risk from flood hazards (902,906) will continue without coping capacities and adaptation strategies to adapt to climate change and the capacity to manage and minimize their exposure and resilience to intensifying flood hazards. Hence, in the baseline scenario without GCF investment, the B&H population and economy will face increasing pressures from more frequent and severe climate change induced flooding, including losses of lives and economic losses due to climate change-induced flood disasters and associated impacts on GDP. In addition, a continued lack of financial resilience will further limit recovery from more frequent flooding, thus keeping the affected population in a cycle of loss and diminishing recovery capacity, eroding, and limiting further sustainable development gains. Scaling-up of tested integrated FRM approaches will not be possible due to the existing financial gap between DRR needs and required investments, as well as an underdeveloped national capacity for flood hazard and risk knowledge.

4. In order to adapt to the intensifying climate-induced flood risk, B&H needs to move towards a more proactive integrated approach to flood risk management that prioritizes risk reduction, risk prevention and preparedness through enhanced use of climate information, establishment of a national flood forecasting and early warning system and enhancement of adaptive capacity and resilience of at-risk communities.

5. Socio-economic risk modelling undertaken to assess potential adaptation benefits of the proposed project intervention for baseline and climate change (2050) scenarios for each of the five most vulnerable sub-basins in B&H

(Una-Sana, Vrbas, Bosna, in the Sava basin, and Neretva and Trebišnjica in the Adriatic Sea basin) , shows that 799,445 people and 272,811 households are currently at risk from floods (Section 2.3 and Annex E of FS). Under climate change, by 2050 the number of affected people and households will increase to 902,906 people and 306,907 households. The total damage to household assets is expected to increase from USD 3.2 billion (baseline) to USD 3.6 billion (2050), while flood affected agriculture areas and agricultural damages are expected to increase from 12,896 ha and USD 3.34 billion to 15,064 ha and USD 3.7 billion. Currently, 2,825 business sector assets across B&H with a total value of USD 3.2 billion are at risk of flooding and would sustain USD 548 million in asset damages in an extreme flood event.

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### III. STRATEGY

6. The Project has been developed to address the barriers to integrated climate-informed flood risk management and is aimed at supporting the commitment of the B&H government to avoid loss of lives and to reduce economic and infrastructure losses caused by climate-induced flood disasters.

7. In the adaptation alternative, this Project will support the commitment of the B&H government to avoid losses of lives and to reduce economic and infrastructure losses caused by climate-induced flood disasters by implementing a Theory of Change described below. The project will scale-up technological, institutional and financial innovation in flood risk management through nation-wide implementation of fully integrated FFEWS based on state-of-the-art modeling technologies, mainstreaming of flood risk into key sectoral policies, mainstreaming nature-based solutions to flood risk management into FRM policy and practice, engaging private sector, promoting new risk financing tools, embedding risk-informed municipal investment planning approaches and implementation of priority flood risk reduction measures in the highest risk communities.

8. Objective of the project Scaling up climate resilient flood risk management in Bosnia and Herzegovina (hereinafter referred to as the project) is to address increasing vulnerability of B&H communities and livelihoods to intensified climate-induced flood-related disasters. The project will establish an integrated and innovative gender-responsive climate-resilient flood risk management (FRM) approach, strengthen institutional, technical, and financial capacity to implement long-term FRM strategies, including a combination of structural and non-structural measures and ecosystem-based approaches. The project will strengthen the use of climate information, flood forecasting, early warning, and emergency response systems to enhance adaptive capacity and resilience of at-risk communities. The project is aligned with the new UN multi-partner initiative “Early Warnings for All (EW4All)” announced by the UN Secretary-General in March 2022 with the aim to promote universal coverage of the early warning and will contribute to the implementation of EWS4All Executive Action Plan developed in March 2023.

9. The project will scale-up successful FRM solutions and technologies tested through a UNDP/SCCF project in Vrbas River Basin, promote and implement technological, institutional and financing innovations in FRM sector, and will leverage considerable public and private investment into resilient FRM. The latter will be achieved through the development of an FRM investment framework supported with incentives, risk transfer products and private sector partnership models, The willingness of the B&H private sector to engage with the intervention is reconfirmed through the materialized co-financing commitments (Annex D), surveys and consultations carried out during the project design phase (Annexes H and J).

10. Project goal statement: IF flood risk management in B&H is transformed towards a more proactive, integrated and climate-informed system supported by gender responsive climate risk informed FRM policies, strategies, technologies and practice THEN vulnerable communities in B&H will be less exposed to increasing frequency and intensity of climate-induced floods and will face reduced loss of assets, infrastructure and livelihoods BECAUSE of access to accurate and timely impact-based flood warnings, and effective climate-proof flood protection measures integrating structural and nature-based solutions supported with long-term investment frameworks.

11. As outlined in the goal statement, the project will catalyze a paradigm shift in flood risk management in B&H by transforming the existing FRM practices and shifting from an ex-post facto i.e. reactionary post-disaster recovery approach to ex-ante i.e. risk informed preparedness approach based on adequate climate information and risk

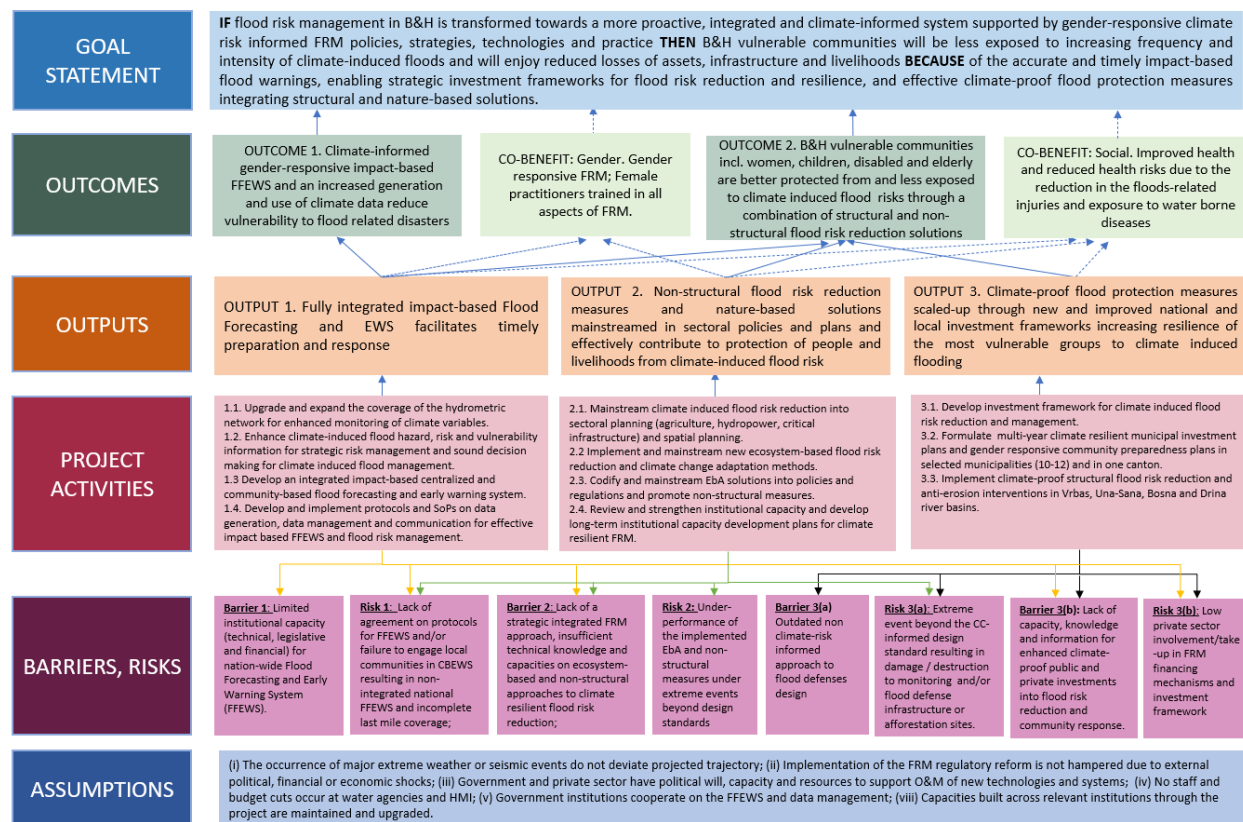
knowledge, as well as on climate-informed FRM policies, strategies, technologies and investment. These elements of the paradigm shifts are further described in Section D.2 below.

12. To achieve the GCF paradigm shift and deliver the project goal, the following two high-level Outcomes are planned: Outcome 1: Climate informed gender-responsive impact-based FFEWS and increased generation and use of climate data reduce vulnerability to flood related disasters; and Outcome 2: Vulnerable communities in B&H, including women, children, disabled, and elderly, are better protected from and less exposed to climate induced flood risks through a combination of structural and non-structural flood risk reduction solutions. Through these outcomes, the project's paradigm shift will be pursued by embedding innovation and technology transfer through scaling up of state-of-the-art technologies in floods monitoring, modelling, impact-based forecasting and early warning, including "last mile" communication (Outcome 1), as well as by identification, selection and implementation of cost-effective EbA measures to complement traditional structural solutions, mainstreaming FRM into sectoral policies and introducing innovative risk financing and transfer mechanism as well as investment planning (Outcome 2). Through its Outcome 1, the project will also contribute to the implementation of the new UN initiative EWS4All announced in 2022 with the aim of promoting universal coverage of early warning.

13. While pursuing these Outcomes, the project will also leverage several important social co-benefits. Co-benefits for health and well-being will include improved overall health and reduced health risks within communities due to the reduction in the number of flood-related injuries and a reduction in the exposure to water borne diseases. The health co-benefits will occur primarily for the vulnerable B&H communities currently lacking access to sanitation and drinking water: 59% of the population in B&H are currently not connected to sewerage systems and 25% are without access to drinking water, and therefore at a higher risk of suffering from illness due to water borne diseases that arise due to flooding. In addition, the project will deliver substantive gender co-benefits as it will train and empower female practitioners in all aspects of FRM and establish gender-responsive risk assessments and FRM framework. The gender-responsive system of data collection and modelling of vulnerability to floods will underpin the socio-economic risk model which will guide the identification and prioritization of risk management, planning, preparedness, and response measures in order to ensure that the most vulnerable groups are prioritized.

14. This flow of outcomes, outputs and activities has been designed with the view of the following assumptions about the external environmental, political, economic, and institutional circumstances. Success of the project in reducing the losses of lives, assets, livelihoods, and infrastructure relies on the assumption that the occurrence of major extreme weather or seismic events do not deviate from projected trajectory. Implementation of the FRM regulatory reform and investment frameworks promoted by the project is based on the assumption that there will be no external political, financial or economic shocks that may hamper implementation capacities and priorities of the government and private sector partners. Consequently, sustainability of the technological solutions and infrastructure, including FFEWS and flood protection structures, depends on the capacities and resources of key stakeholders to support O&M of new technologies and systems, and to maintain adequate level of staff and budgets at water agencies and HMI. Finally, the effectiveness of the FFEWS in improving the timeliness and accuracy of flood warning is based on the assumption that government institutions cooperate on the FFEWS and data management.





## IV. RESULTS AND PARTNERSHIPS

### Expected Results:

15. The project targets 799,445 direct beneficiaries by the end of the project (25% of the total population). It will prevent loss of life, property, critical infrastructure, and economic assets and will build resilience to flooding in the most vulnerable communities. It will achieve this by:

- (i) developing institutional capacity to generate climate risk information for long-term strategic climate-resilient flood risk management (FRM);
- (ii) scaling up successful innovative FRM technologies and implementing a nationwide impact-based Flood Forecasting and Early Warning System (FFEWS), which will result in improved warning times and reduced losses;
- (iii) empowering local communities to undertake local flood risk reduction and response measures, including community-based early warning systems (CBEWS) that complement the centralized national EWS system.
- (iv) enhancing the capacity to identify, plan and implement long-term climate resilient flood risk management strategies at the basin and sub-basin scale by introducing combined structural and non-structural methods including ecosystem-based adaptation (EbA) measures;
- (v) promoting innovative EbA strategies and nature based FRM solutions, which enhance the environmental and ecological protective functions of the river basins.
- (vi) enhancing long-term flood risk investment planning and enabling environment for climate risk financing to secure long-term sustainability of interventions and adequate

operations and maintenance of the enhanced climate information and early warning services;

- (vii) engaging private sector in climate information services and FRM activities and facilitating an increased use of climate risk information in their operations.

16. Project consists of two Outcomes divided in three outputs, as follows:

**Outcome 1:** Climate informed gender-responsive impact-based FFEWS and increased generation and use of climate data reduce vulnerability to flood related disasters.

**Output 1:** Fully integrated impact-based Flood Forecasting and EWS facilitates timely preparation and response.

**Outcome 2:** Vulnerable communities in B&H including women, children, disabled, and elderly are better protected from and less exposed to climate induced flood risks through a combination of structural and non-structural flood risk reduction solutions.

**Output 2:** Non-structural flood risk reduction measures and nature-based solutions mainstreamed in sectoral policies and plans and effectively contribute to protection of people and livelihoods from climate-induced flood risk.

**Output 3:** Climate-proof flood protection measures scaled-up through new and improved national and local investment frameworks increasing resilience of the most vulnerable groups to climate induced flooding.

17. Output 1 of the project will enhance flood forecasting and early warning (FFWS) capacity by developing a nationwide, sustainable impact based FFEWS. This will improve warning times and reduce losses, drawing from successful models in early warning systems and community-based DRM. This output will be achieved through a set of four interconnected and sequenced activities required to deliver a functional integrated impact based FFEWS:

- Improving the hydrometeorological network damaged during the 1992-1995 war to ensure effective monitoring and early warning across all river basins;
- Enhancing hazard and risk mapping by developing hydrological and hydraulic models, including comprehensive flood risk and vulnerability assessments;
- Implementing a countrywide FFEWS based on impact forecasting and WMO standards, with provisions for "last-mile" communication for high-risk communities;
- Strengthening climate risk information sharing and coordination between institutions through SOPs and communication protocols.

These activities will address barriers to effective flood risk management (FRM) in B&H, laying the foundation for further project outcomes. The results of Output 1 form the basis of activities under Outcomes 2 and 3.

18. The project's Outcome 2 will be achieved through the Outputs 2 and 3 which together will enhance the capacity to identify, plan and implement long-term flood risk management strategies at the basin and sub-basin scale by introducing combined structural and non-structural methods including EbA measures.

19. Output 2 will integrate climate-informed flood risk management (FRM) into key sectoral policies and enhance institutional technical capacities. Using the hazard and risk assessments from Output 1, it will promote nature-based and non-structural flood protection solutions, improving watershed ecosystems and restoring ecological functions. This will be achieved through four main activities:

- Enhancing the legislative and policy framework by mainstreaming climate-induced FRM into policies for agriculture, forestry, environment, hydropower, infrastructure, and spatial planning (Activity 2.1);
- Scaling up nature-based flood management, including 21 non-structural and ecosystem-based adaptation (EbA) measures like afforestation and soil protection in high-risk basins (Activity 2.2).
- Establishing a knowledge framework for applying climate-resilient EbA methods through guidelines, standards, and protocols (Activity 2.3);
- Implementing training programs to build long-term capacity in FRM for practitioners, decision-makers, and communities (Activity 2.4):

This output will address policy gaps, foster a strategic FRM approach, and enhance technical knowledge for climate-resilient flood risk reduction in B&H.

20. Output 3 will enhance long-term flood risk investment planning at national and local levels, involve the private sector in risk management, and implement priority climate-proof flood protection measures in high-risk areas. This will be accomplished through three activities:

- Enhancing the climate risk financing framework by shifting from public and donor financing to integrated finance and public-private partnerships. The project will develop FRM investment frameworks, risk transfer schemes, and policies for private sector engagement, including flood insurance (Activity 3.1);
- Developing municipal investment plans for climate-resilient flood management, supported by national methodologies, tools, and guidelines. Investment planning will include Early Action plans with humanitarian funding based on impact-based FFEWS (Activity 3.2);
- Implementing climate-responsive flood defense designs using standardized methodologies and tools. The project will implement 10 structural measures identified by Water Agencies in high-risk river basins (Activity 3.3).

Hence the project Output 3 will address barriers to the effective integrated FRM in B&H related to the outdated not climate-risk informed approach to flood defenses design, and the lack of capacity, knowledge and information for enhanced climate-proof public and private investments into flood risk reduction and community response.

21. **Output 1:** Fully integrated impact-based Flood Forecasting and EWS facilitates timely preparation and response

a) Activity 1.1: Upgrade and expand the coverage of the hydrometric network for enhanced monitoring of climate variables in Category I catchments and torrential streams.

Activity 1.1 Deliverables:

- Hydro-meteorological observation network expanded with 9-Groundwater monitoring stations; 24-rehabilitated piezometers; 18-new piezometer 100 and 200 m deep;
- 10- boreholes with average depth up to 50 m; 30- boreholes with average depth up to 30 m; 26-Meteorological stations; 23-Hydrological stations;
- 2 strategic plans, methodologies, guidelines and manuals for the operation and maintenance of the optimized hydrometric network;
- 1 prototype mechanism for private sector cost recovery;
- 2 Public Sector O&M financing strategies action plans, budgetary allocation mechanisms and tools.

b) Activity 1.2: Enhance climate-induced flood hazard, risk and vulnerability information for strategic risk management and sound decision making for climate induced flood management.

Activity 1.2 Deliverables:

- Enhanced WBIF EUFD hazard and risk modelling by a) developing hydrological modelling for all main basins (category I rivers), b) undertaking torrents hazard modelling, c) including HPPs and groundwater modelling in flood hazard;
- GIS-based risk and vulnerability modelling and mapping based on enhanced hazard maps for all relevant basins.

c) Activity 1.3: Develop an integrated impact-based centralized and community-based flood forecasting and early warning system

Activity 1.3 Deliverables:

- 1 FFEWS model and platform integrating all basin FFEWS models;
- CBEWS for 60 high priority communities;

- develop sector specific FFEWS products for HPP and agriculture;
- capacity development plan for embedding flood hazard and risk modelling approaches and FFEWS into appropriate institutions in B&H.

d) Activity 1.4: Develop and implement protocols and SoPs on data generation, data management and communication for effective impact based FFEWS and flood risk management.

Activity 1.4 Deliverables:

- SoPs for “last-mile” warning and dissemination and communication system, Protocols and SOPs on data;
- At least 12 data sharing protocols between water management and other relevant sectors (agriculture, forestry, environment, spatial planning, and hydro-energy);
- Cross-sectoral flood risk management platform for climate data, across all government institutions.

22. **Output 2:** Non-structural flood risk reduction measures and nature-based solutions mainstreamed in sectoral policies and plans and effectively contribute to protection of people and livelihoods from climate-induced flood risk

a) Activity 2.1: Mainstream climate induced flood risk reduction into sectoral planning (agriculture, hydropower, forestry, environment), critical infrastructure and spatial planning.

Activity 2.1 Deliverables:

- 5 Sectoral strategies, plans and technical guidelines (for agriculture, hydropower, critical infrastructure, forestry and environment);
- National floodplain zoning policy and legislation implemented in all basins at entity, cantonal and municipal levels; Existing local/cantonal Spatial Plans updated by integration of Flood Zoning Policy and flood hazard and risk information into the local/cantonal Spatial Plans; Existing, local/cantonal Spatial Plans updated by integration of Flood Zoning Policy and flood hazard and risk information into the local/cantonal Spatial Plans for 10-12 municipalities and cantons; CD in new floodplain zoning policy;
- Updated climate risk-informed methodologies, standards for infrastructure design, construction material, use and maintenance of critical infrastructure in B&H;
- Capacity development plan for climate resilient infrastructure design, construction and O&M approaches.

b) Activity 2.2: Implement and mainstream new ecosystem-based flood risk reduction and climate change adaptation methods.

Activity 2.2 Deliverables:

- Catchment management for reduced erosion;
- 5 Government-financed EbA measures;
- 13 Government-financed non-structural measures;
- 8 non-structural measures co-funded by GCF and government.

c) Activity 2.3: Codify and mainstream “ecosystem-based adaptation” (EbA) solutions into policies and regulations and promote non-structural measures among decision makers and communities.

Activity 2.3 Deliverables:

- Best-practice guidelines, technical specification, standards and protocols for the application of ecosystem based non-structural measures including methodology for system evaluation; methodology and guidance for undertaking risk assessment and appraisal of EbA measures;

- Knowledge portal and common resource center to collect, collate and share knowledge and fill these gaps to advance uptake of nature-based solutions and for collaboration between ecologists, or specialists to allow to co-working and knowledge sharing;
- Capacity development in the application of methods for the identification, prioritization design and implementation of basin appropriate EbA solutions;
- Training for 200 FRM practitioners at all levels and all relevant types of stakeholders (entity, municipal, community).

d) Activity 2.4: Review and strengthen institutional capacity and develop long-term institutional capacity development plans for climate resilient FRM.

Activity 2.4 Deliverables:

- Capacity Development plan for Flood Risk Management;
- FRM CDP and training plan and programme embedded in existing government training programmes for long-term FRM training in B&H in the following topics: Flood hazard and risk assessment, hydrometry, forecasting and modelling, EWSs; Vulnerability and Risk Assessment; River basin flood risk management planning and the use of climate information.

**23. Output 3:** Climate-proof flood protection measures scaled-up through new and improved national and local investment frameworks increasing resilience of the most vulnerable groups to climate induced flooding

a) Activity 3.1: Develop a country-wide investment framework for climate induced flood risk reduction and management including provisions for private sector engagement in climate risk financing.

Activity 3.1 Deliverables:

- 5 strategies and plans for long-term ongoing investment frameworks that would be required to address flood risk to each sector;
- Sector-specific information dissemination portals as part of the information platform to be developed under 1.4.3;
- 2 risk financing and risk transfer strategy for private sector engagement in risk financing and risk transfer mechanisms for entity-level flood risk financing and resilience strategy;
- 3 natural disasters products developed;
- 3 Feasibility studies on micro-insurance, regional disaster risk insurance program and catastrophe bonds;
- 4 sector specific awareness campaigns;
- 2 tools for appraisal-led design for structural and non-structural FRM measures based on cost benefit analysis (CBA) approaches.

b) Activity 3.2: Formulate multi-year climate resilient municipal investment plans and gender responsive community preparedness plans in selected municipalities and in one canton in Vrbas, Una-Sana, Bosna, Drina, Neretva and Trebišnjica basins.

Activity 3.2 Deliverables:

- 2 financing models for investment maintenance costs;
- Standardized CBA tools embedded in municipality for developing annual infrastructure investment plans;
- 10-12 municipal FRM investment plans based on risk-informed project designs, including maintenance, and costs-benefit analysis based on CBA methods and models;
- Multi-year climate resilient municipal investment plan and gender responsive community preparedness plan implemented in the highest risk municipalities (10-12) in Vrbas, Una-Sana and Bosna basins;

- Community preparedness plans for the 10-12 communities in line with the procedure, methodology and content of CEEP in B&H as defined by Law of Protection and Rescue in RS and FB&H.

c) Activity 3.3: Implement climate-proof structural flood risk reduction and anti-erosion interventions in Vrbas, Una-Sana, Bosna and Drina River basins.

Activity 3.3 Deliverables:

- Detailed design of 10 climate-proofed structural measures;
- 10 EiB/WB-funded climate-proofed structural measures implemented.

UNDP is required to report on the co-financing amounts disbursed and applied towards the implementation of the Funded Activity (i) in each Annual Performance Report (APR), (ii) in the Interim Evaluation, (iii) in the Terminal Evaluation, (iv) in the Project Completion Report, (v) as a condition precedent for all requests for disbursement, within the timeframe to ensure timely requests for disbursements and in form and substance satisfactory to the GCF, and (vi) upon the request of GCF. To this end, all co-financiers (including the Implementing Partner, if applicable) will be requested to provide to UNDP the relevant information in the form of co-financing materialization letters during each of the above project milestones.

Agreement on intellectual property rights and use of logo on the project's deliverables and disclosure of information: To accord proper acknowledgement to the GCF for providing grant funding, the GCF logo will appear together with the UNDP logo on all promotional materials, other written materials like publications developed by the project, and project hardware. Any citation on publications regarding projects funded by the GCF will also accord proper acknowledgement to the GCF. Information will be disclosed by UNDP in accordance with relevant policies notably the UNDP Disclosure Policy<sup>1</sup>. In addition, GCF may further disclose project information under its own GCF Disclosure Policy<sup>2</sup>, in line with the terms and conditions set out in the AMA. See also [GCF Branding Guidelines](#).

Carbon offsets or units: As outlined in the AMA agreement between UNDP and the GCF, to the extent permitted by applicable laws and regulations, the Implementing Partner will ensure that any greenhouse gas emission reductions (e.g. in emissions by sources or an enhancement of removal by sinks) achieved by this project shall not be converted into any offset credits or units generated thereby, or if so converted, will be retired without allowing any other emissions of greenhouse gases to be offset.

Resources required to achieve the expected result:

24. To achieve the expected results it's essential to identify and allocate the necessary resources effectively. These resources, or key inputs, are critical for delivering the desired outputs and outcomes.

#### 1. Human Resources

- CO Staff: Sector leader, project manager, safeguard officers, and support staff who implement activities on the ground.
- Regional and HQ Staff: Regional advisors, technical experts, and HQ-level staff for oversight, strategic guidance, and specialized input.
- Technical Experts: Subject matter experts (e.g., in disaster risk reduction, climate change, community engagement) to provide specialized knowledge and training.
- Monitoring and Evaluation (M&E) Staff: Professionals to design and implement M&E frameworks, ensuring the project stays on track and achieves its goals.

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<sup>2</sup> See [https://www.greenclimate.fund/documents/20182/184476/GCF\\_B.12\\_24\\_-\\_Comprehensive\\_Information\\_Disclosure\\_Policy\\_of\\_the\\_Fund.pdf/f551e954-baa9-4e0d-bec7-352194b49bcb](https://www.greenclimate.fund/documents/20182/184476/GCF_B.12_24_-_Comprehensive_Information_Disclosure_Policy_of_the_Fund.pdf/f551e954-baa9-4e0d-bec7-352194b49bcb)

- Administrative and Financial Staff: Personnel to manage logistics, procurement, budgeting, and financial reporting.

## 2. Partnerships and Collaboration

- Local Partners: local governments and agencies that can support implementation, provide local knowledge, and enhance community engagement.
- Private Sector: Businesses and industries that can provide funding, technology, or other resources, particularly in areas like infrastructure development or capacity building.
- Academic and Research Institutions: Partnerships with universities or research bodies for data collection, analysis, and evidence-based decision-making.

## 3. Financial Resources

- Project Funding: Adequate budget allocation to cover all project activities, including staffing, travel, training, and procurement of goods and services.
- Co-Funding Funds: Financial contributions from government partners to supplement project funding and ensure sustainability.

### Partnerships:

25. The project will work collaboratively with a diverse group of partners, ensuring their expertise and mandates are leveraged to achieve its goals:

**Ministry of Foreign Trade and Economic Relations of B&H:** As the GCF focal point for Bosnia and Herzegovina, this ministry will play a critical role in aligning the project with international climate commitments and frameworks. Their responsibility for coordinating environmental policies, particularly water management, will help guide the project in policy coherence. As a member of the Project Board, they will advocate for necessary support and coordination between various stakeholders. Their financial contributions will enable stronger advocacy and policy alignment, boosting the project's impact.

**Federal Ministry of Agriculture, Water management, and Forestry:** At the entity level, this ministry oversees agriculture, forestry, and water management. The project will collaborate with them to enhance sectoral policies and implement integrated water and land management practices. Their participation on the Project Board ensures the alignment of project interventions with federal policy priorities.

**Ministry of Agriculture, Forestry, and Water management:** This ministry will coordinate land use, forestry, and water resource management in RS. Through joint activities, the project will focus on sustainable land use and ecosystem resilience, with the ministry's role on the Project Board ensuring that project actions are reflected in entity-level policies and programs. Their financial commitment will be used to fund both local and entity-level initiatives, boosting the project's capacity to implement sustainable land use and forestry practices that align with climate adaptation goals.

**Ministry of Spatial Planning, Construction, and Ecology of Republika Srpska** will be instrumental in implementing climate change adaptation measures through integrative spatial and environmental planning within the Republika Srpska entity. They will ensure that project activities align with RS's environmental policies and contribute to sustainable land use and ecosystem protection strategies.

**Water Agency for Sava River Basin:** The agency's role in managing the Sava River Basin is critical for data collection, water monitoring, and flood risk management. The project will work with this agency to strengthen water management plans, develop flood and drought mitigation measures, and ensure the distribution of hydrological data across stakeholders. Their financial contribution will fund water monitoring and management plans as well as infrastructural works, ensuring that critical data collection systems are in place to inform project decisions and improve flood risk management measures.

**Public Institution “Vode Srpske”:** In managing water resources for both the Sava and Adriatic River Basins within RS, this institution will be a key partner in collecting and distributing data, and implementing flood risk reduction measures. The project will cooperate to improve water management systems, aligning these efforts with broader project objectives for climate resilience.

**Water Agency for Adriatic River Basin:** Responsible for the Adriatic River Basin within the Federation of Bosnia and Herzegovina (FB&H), this agency will provide critical support in water monitoring, data collection, and the development of policies aimed at reducing the risks of flood, drought, and erosion. The project will collaborate on water management plans to foster resilient ecosystems. By contributing to the funding of water management infrastructure, the project’s efforts to build climate resilience in the Adriatic River Basin will be significantly strengthened.

**Republic Hydro-meteorological Institute:** This institute collects essential climatic and hydrological data that supports climate variability studies and long-term trend analysis. The project will work with the institute to enhance modelling capacities, integrating data into national climate adaptation strategies and supporting early warning systems.

**Federal Hydro-meteorological Institute:** Similarly, this institute gathers vital meteorological and hydrological data for FB&H. By collaborating with this partner, the project will enhance climate models, contribute to regional WMO research programs, and develop climate-resilient strategies based on sound scientific evidence.

26. Through coordinated efforts with all project partners, the project will ensure that sectoral policies are aligned with climate adaptation strategies, improve the management of water resources, and enhance disaster risk reduction measures to strengthen climate resilience across the country. Each partner's co-financing will not only provide critical resources but will also align sector-specific efforts with broader project goals, ensuring that climate resilience and disaster risk reduction are effectively integrated across all areas of the project.

Stakeholder	Role in the project
B&H Ministry of Foreign Trade and Economic Relations	4) GCF focal point for B&H 5) State level 6) Responsible for coordinating policies and measures in the field of the environment, including water management 7) Coordination, advocating 8) Member of Project Board
Federal Ministry of Agriculture, Water-Management, and Forestry	9) Entity level 10) Responsible for coordinating policies and measures in agriculture, water-management and forestry 11) Member of Project Board
RS Ministry of Agriculture, Forestry, and Water Resources	12) Entity level 13) Responsible for coordinating policies and measures in land use, forestry, and water resources 14) Member of Project Board
RS Ministry of Spatial Planning, Construction, and Ecology	15) Responsible for environmental policies and measures in RS, including environmental measures that may mitigate CC. Responsible for integrative planning and spatial planning in RS.
Water Agency for Sava River Basin	16) Management of Sava River basin (within FB&H), 17) Responsible for data collection and distribution, water monitoring (hydrology and quality), preparation of Water management plans and plans for prevention and reduction of harmful impacts (flood, drought, erosion), preparation of legislation and policies and their implementation, projects



	implementation, implementation of flood risk management measures
Public Institution Waters of Srpska	<p>18) Management of water resources within RS Entity (both Sava and Adriatic River basins)</p> <p>19) Responsible for data collection and distribution, water monitoring (hydrology and quality), preparation of Water management plans and plans for prevention and reduction of harmful impacts (flood, drought, erosion), preparation of legislation and policies and their implementation, projects implementation, implementation of flood risk management measures</p>
Water Agency for Adriatic River Basin	<p>20) Management of Adriatic River basin (within FB&amp;H),</p> <p>21) Responsible for data collection and distribution, water monitoring (hydrology and quality), preparation of Water management plans and plans for prevention and reduction of harmful impacts (flood, drought, erosion), preparation of legislation and policies and their implementation, projects implementation, implementation of flood risk management measures</p>
Hydro-meteorological Institute of RS	<ul style="list-style-type: none"> <li>○ Entity body</li> <li>○ Collects climatic meteorological and hydrological data necessary for studying climate variability, for trend analysis, and for long-run modelling.</li> <li>○ Conducts modelling and participates in WMO research programs.</li> </ul>
Hydro-meteorological Institute of B&H	<ul style="list-style-type: none"> <li>○ Entity body</li> <li>○ Collects climatic meteorological and hydrological data necessary for studying climate variability, for trend analysis, and for long-run modelling.</li> <li>○ Conducts modelling and participates in WMO research programs.</li> </ul>
RS Civil Protection	<ul style="list-style-type: none"> <li>○ Entity body -RS</li> <li>○ Coordinate and manage work of civil protection units</li> <li>○ Develop of the programme of protection and rescue for natural and other disasters</li> <li>○ Organise and coordinate implementation of protection and rescue measures, related to natural and other disasters</li> <li>○ Monitoring, reporting and alert on emergency situations</li> <li>○ Vulnerability assessment</li> <li>○ Trainings and capacity building on civil protection</li> </ul>
Federal Civil Protection	<ul style="list-style-type: none"> <li>○ Entity body- FB&amp;H</li> <li>○ Coordinate and manage work of civil protection units in RS</li> <li>○ Develop of the programme of protection and rescue for natural and other disasters</li> <li>○ Organise and coordinate implementation of protection and rescue measures, related to natural and other disasters</li> <li>○ Monitoring, reporting and alert on emergency situations</li> <li>○ Vulnerability assessment</li> <li>○ Trainings and capacity building on civil protection</li> </ul>

Agency for Insurance (state level)	<ul style="list-style-type: none"> <li>○ State level agency</li> <li>○ Assures unified implementation of insurance regulations between entities</li> </ul>
Insurance agencies (Insurance Agency of RS, Insurance Agency FB&H)	<ul style="list-style-type: none"> <li>○ Entity level agencies</li> <li>○ Approves insurance products</li> <li>○ Develops insurance related regulations</li> <li>○ Monitors disbursements of insurance companies' funds</li> </ul>
HPP	<ul style="list-style-type: none"> <li>○ Private and state-owned companies for el. power production</li> <li>○ Alteration of hydrological regime to support FRM</li> <li>○ HM monitoring-integration in national network</li> <li>○ With technical support HPP sector enable more climate resilient operations</li> </ul>
Associations of Insurance Companies of (one for RS, one for FB&H)	<ul style="list-style-type: none"> <li>○ NGO</li> <li>○ Strengthens insurance market</li> <li>○ Provides professional services to insurance companies</li> <li>○ Promotes and harmonize cooperation between insurance companies</li> </ul>
Local Governments	<ul style="list-style-type: none"> <li>○ Municipal bodies</li> <li>○ Management of public functions/ activities within local communities</li> <li>○ Preparation of development plans and programmes</li> <li>○ Organization and management of local civil protection</li> <li>○ Spatial planning</li> <li>○ Local economic development</li> <li>○ Implementation of local FRM measures</li> <li>○ Implement loss/damage assessment at local level</li> <li>○ Provide local information and knowledge</li> <li>○ Ensure local participation</li> </ul>
Association of Cities and Municipalities of RS	<ul style="list-style-type: none"> <li>○ NGO- RS</li> <li>○ Advocacy and firm representation of the municipal interests</li> <li>○ Coordinate work of municipalities and cities in RS</li> <li>○ Promote local development and enable implementation of projects/investments</li> <li>○ Support in the consultative legislative processes,</li> <li>○ Promote protection of common interests and cooperation with national and international associations, organizations and institutions of government.</li> </ul>
Association of Cities and Municipalities of FB&H	<ul style="list-style-type: none"> <li>○ NGO- RS</li> <li>○ Advocacy and firm representation of the municipal interests</li> <li>○ Coordinate work of municipalities and cities in RS</li> <li>○ Promote local development and enable implementation of projects/investments</li> <li>○ Support in the consultative legislative processes,</li> <li>○ Promote protection of common interests and cooperation with national and international associations, organizations and institutions of government.</li> </ul>
NGOs (environmental, social inclusion and protection organizations-for returnees and displaced persons, vulnerable groups, minorities, etc.)	<ul style="list-style-type: none"> <li>○ NGOs</li> <li>○ Provide information, training, and awareness-raising</li> <li>○ Ensure local participation and involvement of vulnerable groups</li> </ul>
Private sector / Micro agricultural businesses	<ul style="list-style-type: none"> <li>○ Financial services provider,</li> <li>○ Implementation of adaptation measures</li> <li>○ Beneficiaries</li> </ul>

### Private sector engagement and partnerships:

27. Private sector engagement in the project is demonstrated through several key agencies and organizations working at both state and entity levels. The Agency for Insurance at the state level plays a pivotal role by ensuring the unified implementation of insurance regulations across different entities, promoting consistency and fairness in insurance practices. This is complemented by the work of entity-level insurance agencies, such as the Insurance Agency of RS and the Insurance Agency of FB&H, which oversee the approval of insurance products, development of regulations, and monitoring of insurance company fund disbursements. These institutions help create a robust regulatory framework that supports the project's objectives.

28. Additionally, hydropower plants (HPP), which include both private and state-owned companies, play an important role in managing the hydrological regime to support flood risk management (FRM). Through the integration of hydrometeorological monitoring into the national network, the HPP sector contributes to more climate-resilient operations. The technical support provided to this sector is crucial in enabling better adaptation to climate change challenges. Together, these stakeholders contribute to enhancing disaster risk reduction through strategic collaboration and regulation.

29. The Government of the B&H is requesting GCF funds to cover the additional costs (required due to the impacts of climate change) of technical assistance and capacity building for enhanced flood risk knowledge, monitoring, forecasting and warnings, for scaling up ecosystem-based and other non-structural risk management approaches, and for facilitating climate risk-informed flood protection investments (Activities 1.1, 1.2, 1.3, 1.4, 2.1, 2.2, 2.3, 2.4, 3.1, 3.2). The Governments of FB&H and RS will co-finance from the Entity budget funds the upgrading and maintenance of the hydrometeorological observation network, implementation of FFEWS, regulatory improvements, resilience and investment planning and implementation of non-structural flood risk reduction measures (Activities 1.1, 1.2, 1.3, 1.4, 2.1, 2.2, 2.3, 2.4, 3.1, 3.2). Implementation of climate-proof structural risk reduction measures (Activity 3.3.) will be co-financed through loan resources (EIB). Private sector (HPPs) will co-finance enhanced flood risk monitoring, forecasting and warning and structural risk reduction investments (Activities 1.1, 1.2.1.3, 1.4, 2.2).

Component	Output/Activity	Indicative cost <u>Options</u>	GCF financing		Co-financing		
			<u>Amount Options</u>	Financial Instrument	<u>Amount Options</u>	Financial Instrument	Name of Institutions
<u>Component 1</u>	1.1 Upgrade and expand the coverage of the hydrometric network for enhanced monitoring of climate variables in Category I catchments and torrential streams	4,405,946	1,535,980	Grants	2,869,966	Grants	MAFWM RS WA Sava WA AB HPP
	1.2 Enhance climate-induced flood hazard, risk and vulnerability information for strategic risk management and sound decision making for climate induced flood management	5,596,589	1,067,833	Grants	4,528,756	Grants	WA Sava WA AB MOFTER HPP
	1.3 Develop an integrated impact-based centralized and community-based flood forecasting and early warning system (FFEWS)	4,111,478	2,156,040	Grants	1,955,438	Grants	MAFWM RS WA Sava WA AB HPP

	1.4 Develop and implement protocols and SoPs on data generation, data management and communication for effective impact based FFEWS and flood risk management	536,000	336,000	Grants	200,000	Grants	WA AB
	2.1 Mainstream climate induced flood risk reduction into sectoral planning (agriculture, hydropower, critical infrastructure) and spatial planning	456,000	366,000	Grants	90,000	Grants	MSPCEE RS
	2.2 Implement and mainstream new ecosystem-based flood risk reduction and climate change adaptation methods	26,116,175	5,868,747	Grants	20,247,428	Grants	MAFWM RS WA Sava WA AB HPP
	2.3 Codify and mainstream EbA solutions into policies and regulations and promote non-structural measures among decision makers and communities	298,680	208,680	Grants	90,000	Grants	MSPCEE RS
	2.4 Review and strengthen institutional capacity and develop long-term institutional capacity development plans for climate resilient FRM	800,000	300,000	Grants	500,000	Grants	MAFWM RS WA Sava WA AB
	3.1 Develop investment framework for climate induced flood risk reduction and management	1,083,614	480,440	Grants	603,174	Grants	BOSNA RE AOIC
	3.2 Formulate multi-year climate resilient municipal investment plans and gender responsive community preparedness plans in selected municipalities (10-12) and in one canton in Vrbas, Una-Sana and Bosna, Drina, Neretva and Trebišnjica basins	3,622,884	525,000	Grants	3,097,884	Grants	UNDP MOFTER
	3.3 Implement climate-proof structural flood risk reduction and anti-erosion interventions in	21,814,433	875,280	Grants	20,939,153	Senior Loans Grants	MAFWM RS- EIB Loan MAFWM RS

	Vrbas, Una-Sana, Bosna and Drina river basins						
	4.1 Project Management	3,847,090	680,000	Grants	3,167,090	Grants	UNDP (TRAC) MOFTER MAFWM RS WA Sava WA AB BOSNA RE AOIC HPP MSPCEE
Indicative total cost (USD)		<u>72,688,889</u>	<u>14,400,000</u>	<u>58,288,889</u>			

#### Risks and Assumptions:

30. Risk factors associated with the project implementation include institutional, policy, financial, technical, and operational aspects of establishing an integrated climate resilient flood risk management and introducing an impact-based MHEWS both national-wide and at community level; and social and environmental due to the implementation of climate-resilient nature-based solutions and construction of protective infrastructures against flood risks. The latter risks may affect the sedimentation movement during construction of flood defense infrastructures. Other risks may affect the lack of commitment from communities where restoration activities, alternative livelihoods and EWS are planned. The proposed project includes several mitigation measures to address these risks. The environmental and social safeguard risks are recognized and will be comprehensively addressed by the standard UNDP social and environmental screening procedure.

Selected Risk Factor 1		
Category	Probability	Impact
<u>Governance</u>	<u>Low</u>	<u>Medium</u>
Description		
Political situation becomes unstable due to local upheavals or regional conflicts		
Mitigation Measure(s)		
The project will develop and implement emergency management/contingency plan in line with UNDP CO's crisis management requirements. This may reduce the level of impact of the risk to medium to low level		
Selected Risk Factor 2		
Category	Probability	Impact
<u>Technical and operational</u>	<u>Medium</u>	<u>Medium</u>
Description		
Extreme hazardous event resulting in damage or destruction to hydrometeorological and/or flood defense infrastructure, damage to beneficiary communities, and disruption to project implementation, requiring reprogramming of government FRM budgets or implementation delays.		
Mitigation Measure(s)		
The project will develop and implement emergency management/contingency plan in line with UNDP CO's crisis management requirements. During the planning, design and construction of relevant infrastructure, disaster risks will be taken into consideration for all stages, and relevant risk mitigation/reduction measures will be put in place. Importantly, the project is designing and implementing climate proofing of infrastructure which should ensure that designs are robust against flood damage and destruction up to the design Standard of Protection. These risk reduction measures will reduce the level of impact and probability that the infrastructure will be destroyed, to minimum level.		

Selected Risk Factor 3		
Category	Probability	Impact
<u>Governance</u>	<u>Low</u>	<u>Medium</u>
Description		
Climate adaptation, FRM and DRR do not remain a government priority and therefore political, financial and technical support to the project is reduced		
Mitigation Measure(s)		
The project will leverage (and strengthen if necessary) already established strong partnerships with high-level government representatives and will carry out lobbying and advocacy campaigns in support of CC adaptation, FRM and DRR. This will reduce the impact of the risk to the minimum level.		
Selected Risk Factor 4		
Category	Probability	Impact
<u>Technical and operational</u>	<u>Low</u>	<u>Medium</u>
Description		
Absorption and operational capacities of project beneficiaries (WAs and HMIs, municipalities etc.) are inadequate to properly run and maintain FRM technologies and systems implemented by the project, after completion		
Mitigation Measure(s)		
The project will pay close attention to the capacity building of all relevant agencies through carrying out training of trainers, on-the-job and field trainings of the staff of relevant agencies, introducing/strengthening internship mechanisms, developing technical guidelines, methodologies and sustainable operations and maintenance plans and embedding ongoing training capacity within relevant institutions. These actions, altogether will reduce the probability and impact of the risk to minimum level.		
Selected Risk Factor 5		
Category	Category	Category
<u>Governance</u>	<u>Low</u>	<u>Medium</u>
Description		
Government and private sector unable to meet co-financing and/or O&M commitments to the project (e.g. due to unforeseen budget cuts).		
Mitigation Measure(s)		
The project will assist the government authorities to develop and implement sustainable long-term investment planning and will develop risk financing mechanisms which will secure financing for activities in the long-term.		
Selected Risk Factor 6		
Category	Probability	Impact
<u>Technical and operational</u>	<u>Low</u>	<u>Medium</u>
Description		
Local communities are not interested to be engaged in CBEWS and community based EbA processes		
Mitigation Measure(s)		
The project will conduct extensive awareness campaign at municipal and community level on the climate-induced flood hazards, vulnerabilities and risks and benefits for reducing these risks. It will also make significant efforts to mobilize and empower local communities in CBEWS and CB-EbA. This will reduce the impact and probability of the risk to the minimum.		
Selected Risk Factor 7		

Category	Probability	Impact
<u>Other</u>	<u>Medium</u>	Select <u>High</u>
<b>Description</b>		
COVID 19		
<b>Mitigation Measure(s)</b>		
<p>The world is currently suffering from the COVID19 pandemic, and B&amp;H is no exception. As a highly transmissible infectious virus, COVID 19 represents a risk whenever mass gatherings, close working conditions or physical contact occurs involving people infected with the virus. 'COVID safe' practices are to be adopted by the project. Compliance with directives of WHO and Ministry of Health must occur and all efforts to reduce the risk of spread will be taken. The project itself does not represent a significant risk, but given the high transmissibility of COVID, any activity that brings people together needs to be treated as risky and appropriate precautions taken.</p>		
<b>Selected Risk Factor 8</b>		
Category	Probability	Impact
Governance	Medium	<u>Medium</u>
<b>Description</b>		
<p>The complex institutional structure and division of authorities and responsibilities between the state government, the two entities in B&amp;H, the line ministries of both entities, and the municipal authorities and the different management arrangements for FRM according to the category of river and type, might present implementation and coordination challenges to the targeted project activities.</p>		
<b>Mitigation Measure(s)</b>		
<p>Close collaboration with relevant stakeholders from the outset and by determining collaborative strategies and focal points in each of the key institutions for the Project Board. The project implementation team and UNDP will use the relevant experience from the previous projects and will rely on the Stakeholder Engagement Plan to make sure that the institutional barriers are tackled timely and efficiently. The project activities (1.3,1.4,2.4) will improve institutional capacities, information and coordination for FRM thus reducing institutional vulnerability and reducing the risk.</p>		
<b>Selected Risk Factor 9</b>		
Category	Probability	Impact
Sanctions	Low	<u>Medium</u>
<b>Description</b>		
Project engage with entities or individuals listed on UN sanctions		
<b>Mitigation Measure(s)</b>		
<p>This project is implemented by UNDP under the Direct Implementation Modality (DIM) and will be guided by UNDP's policy framework. UNDP, by virtue of being an organ of the United Nations and therefore being part of the same entity, is also beholden to the principles on countering the financing of terrorism. UNDP systematically screens all entities being considered to be contracted by or partner with UNDP against the Consolidated UN Security Council Sanctions List (<a href="https://www.un.org/securitycouncil/content/un-sc-consolidated-list">https://www.un.org/securitycouncil/content/un-sc-consolidated-list</a>). UNDP Country Office in B&amp;H will be responsible for screening all entities or individuals against the Consolidated UN Security Council Sanctions List before engaging with them for the project.</p>		
<b>Selected Risk Factor 10</b>		
Category	Probability	Impact
ML/FT	Low	<u>Medium</u>
<b>Description</b>		
Money laundering and terrorist financing risks		

Mitigation Measure(s)		
This project is implemented by UNDP under the Direct Implementation Modality (DIM) and will be guided by UNDP's policy framework. UNDP, by virtue of being an organ of the United Nations and therefore being part of the same entity, is also beholden to the principles on countering the financing of terrorism. UNDP systematically screens all entities being considered to be contracted by or partner with UNDP against the Consolidated UN Security Council Sanctions List. Please refer to the UN Security Council Consolidated Sanctions List available at <a href="https://www.un.org/securitycouncil/content/un-sc-consolidated-list">https://www.un.org/securitycouncil/content/un-sc-consolidated-list</a> for the latest information on sanctions.		
Selected Risk Factor 11		
Category	Probability	Impact
Prohibited practices	Low	<u>Medium</u>
Description		
Prohibited Practices Risks		
Mitigation Measure(s)		
<p>UNDP applies a zero tolerance policy in relation to fraud and corruption. The guiding principles of UNDP's commitment to prevent, identify and address all acts of fraud and corruption have been laid out in the UNDP Policy against Fraud and Corrupt Practices (the "FCP Policy"), which applies to all activities and operations of UNDP, including projects and programmes. The fundamental principles of UNDP's FCP Policy serve as the basis for and are integrated in UNDP's policy frameworks in relation to procurement, financial management, internal control and accountability and staff rules and regulations.</p> <p>Under the terms of the FCP Policy and related policies, UNDP has a commitment, when developing a new programme or project, to ensure that risks related to fraud and corrupt practices are fully identified and considered in the programme/project design and processes and that adequate and effective measures to mitigate such risks are put in place. In this light, the processes and requirements for UNDP's partnership capacity assessment (PCAT) require UNDP to carry out a thorough due diligence of the risks in relation to the programme/project it intends to engage in, as well as in relation to the potential partners who will be involved in the implementation of such programmes/projects. Such capacity assessments include, among other things, a screening of all entities being considered to be contracted by or partner with UNDP against the Consolidated UN Security Council Sanctions List (to which UNDP, by virtue of being an organ of the United Nations and therefore being part of the same entity, is also beholden), an assessment of any history of fraud, corruption or other fraudulent practices and/or potential conflicts of interest. Based on this capacity assessment, UNDP then builds an internal control component into the design of the project and ensures that the financial management of the programme/project contains adequate safeguards to prevent, monitor and address any risks and acts of fraud, corruption or AML/CFT that may be identified.</p>		

31. The identified risks center around governance challenges within the project context. These include the potential for political instability stemming from local upheavals or regional conflicts, diminishing government prioritization of climate adaptation, FRM, and DRR leading to reduced support for the project, as well as the risk of both government and private sector entities failing to meet their financial commitments, such as co-financing and O&M obligations. Moreover, the intricate institutional structure and division of authorities between state and local entities, alongside varied management arrangements for FRM, pose significant implementation and coordination hurdles for project activities.

32. The technical and operational risks identified encompass various challenges related to infrastructure, operational capacity, and community engagement within the project framework. These include the threat of extreme hazardous events causing damage or destruction to hydrometeorological and flood defense infrastructure, as well as impacting beneficiary communities and disrupting project implementation, potentially necessitating reprogramming of government FRM budgets or causing implementation delays (R2). Furthermore, there's a risk that the absorption and operational capacities of project beneficiaries, such as Water Authorities (WAs) and Hazard Management Institutions (HMIs), alongside municipalities, may be insufficient to effectively operate and maintain FRM technologies and systems post-project completion (R4). Additionally, the lack of interest from local communities in engaging with Community-Based Early Warning Systems (CBEWS) and community-based Ecosystem-based Adaptation (EbA) processes present a challenge to the technical and operational aspects of the project (R6). These risks collectively highlight the complexities involved in ensuring the technical functionality, operational sustainability, and community engagement necessary for successful FRM project.



Stakeholder engagement:

33. The project proposal “Scaling up Climate Resilient Flood Risk Management in Bosnia and Herzegovina” was developed in close cooperation with the National Designated Authority and based on consultations with stakeholders as detailed below:

- Ministry of Foreign Trade and Economic Relation, B&H, GCF NDA for B&H
- Ministry of Security, B&H
- Ministry of Agriculture, Forestry and Water Management, RS
- Federal Ministry of Agriculture, Water Management and Forestry
- Ministry of Spatial Planning, Civil Engineering and Ecology, RS,
- Public Institutions “Waters of Srpska”
- Water Agency for Adriatic River Basin
- Hydro-meteorological institute
- Hydro Power Plants

34. The project design has been informed through consultation with various stakeholders and has sought to reflect the gender differentiated aspects of flood risks. Information on the needs of vulnerable groups (women, ethnic minorities, disabled, elderly) has been collected and will continue to be collected through ongoing and inclusive stakeholder engagement and the embedding of tools and methodologies for the collection of gender responsive socio-economic data for development of the flood socio-economic risk and vulnerability model to be developed under output 1.2. Through the implementation of a Gender Action Plan (GAP) the project will assist in fulfilling B&H’s commitment to gender equality and international obligations on gender responsive climate change and disaster risk measures. The GAP will draw on lessons learnt from the UNDP Vrbas project including the need for gender responsive planning and implementation. It will include gender analysis as part of risk and vulnerability and support capacity building of staff and implementing partners to collect sex and age disaggregated baseline data; develop specific performance indicators to monitor, report or track progress, inform decision making; and strengthen accountability on commitments for gender equality.

South-South and Triangular Cooperation (SSC/TrC):

35. The project will directly support SSTRC through three cooperation modalities: (i) bi-lateral knowledge exchanges and exploration of technology transfer with other UNDP-implemented projects in the region; (ii) cooperation with and contribution to other UNDP projects and initiatives in developing countries including sharing project successes and lessons learned; and (iii) contribution to and learning from information exchange platforms that promote sharing of results and lessons learned within the country and region and beyond.

36. In addition, to bring the voice of Bosnia and Herzegovina to global and regional fora, the project will explore opportunities for meaningful participation in specific events where UNDP could support engagement with the global development discourse on Early warning systems and transboundary river management. The project will provide regional cooperation opportunities with countries implementing initiatives on Early warning systems and transboundary river management in geopolitical, social and environmental contexts relevant to the proposed project in Bosnia and Herzegovina.

Gender equality and Women’s Empowerment:

37. Gender Assessment and Gender Action Plan has been prepared, which provides an overview of the gender situation in Bosnia and Herzegovina, identifies gender issues that may be relevant to the project context, and includes recommendations for advancing gender equality and women’s empowerment through the financed activities, and to inform the development of the project’s gender action plan. Individual needs and contexts in a

disaster situation are examined through the lenses of vulnerability, visibility, and voices. The analysis follows social vulnerability approach and further defines whose voice is seen as the default one, and whose is the most visible perspective. The assessment was based upon available data from the Agency for Statistics of Bosnia and Herzegovina, RS and FB&H, studies conducted by the Government of Bosnia and Herzegovina, international organizations, civil society organizations and any other sources as UNDP Technology transfer for climate resilient flood management in Vrbas River Basin project and includes:

- Undertaking a desktop review and aligning approaches in this proposal with the national priorities of Bosnia and Herzegovina.
- Incorporating information and lessons learned from past studies and assessments on gender in Bosnia and Herzegovina from the Government of Bosnia and Herzegovina, the United Nations, civil society organisations, and multilateral development banks.
- Conducting stakeholder consultations, including consultations with the Agency for Gender Equality of Bosnia and Herzegovina and the two gender centers (of Republika Srpska and Federation B&H), and engaging women/men/youth affected by the project and incorporating all points raised; and
- Integrating gender considerations in the project indicators, targets, and activities, identifying women as leaders and decision-makers

38. The analysis shows that in order to set up effective national and community based early warning systems, climate-informed planning and improved resilience, gender consideration need to be integrated into the project implementation. The existing gender inequality factors (e.g., limited engagement of women in planning and decision making) and traditional distribution of gender roles in families and communities call for tailoring and targeting of the project solutions to outreach beneficiaries of both genders equally. Based on the analysis of the gender aspects of vulnerability to climate-induced natural disasters a number of recommendations for the proposed GCF project have been elaborated. These recommendations and the following Gender Action Plan are aimed at ensuring that the GCF project:

- narrows gender inequality;
- addresses the needs and constraints of women, girls, men, and boys;
- avoid any risks of adverse gender impacts;
- ensure women's participation, promotes their leadership qualities; and
- ensure women are included as planners, co-implementers and agents of change.

39. As a result of the project implementation more lives, property and productive assets will be secured from the impacts of climate induced disasters. Beneficiaries of this outcome will be all the population, but women's benefits will be bigger as for the livelihood women more than men depend on natural resources. They also are poorer than men and hence proportionally loose more. Moreover, after flood, majority of women is left with household and some farm works since their husbands are going out for cash. Women again have to be in charge of all the remaining stuff including restarting their productive work such as farms, preparing livestock for raising, or replanting vegetables for some small cashes. Food security, psychological stresses, households' debts, and more labor-intensive works have degraded the wellbeing of women in the post-flood scenario. The recommendations and the Gender Action Plan as summarized below have been designed to ensure that both men and women have full and equitable access to the Project's resources and benefits, with specific actions and responsibilities aimed at ensuring the full participation of women in Project activities.

40. At Project inception, additional gender analysis will be undertaken to ensure that the baseline data set is sex- and age-disaggregated and adequate for assessment of the gender impacts of the Project. At this time, the Gender Action Plan will be presented to the Project Implementation Team, including Government staff and consultants. In particular, the Project team leaders will ensure that all specialists are briefed on their responsibilities in relation to the Gender Action Plan upon mobilization. Progress reports will provide periodic updates on the effect of the Project on women, and regular UNDP review missions and the midterm review mission will review and monitor the gender impacts.

Knowledge:

41. The project has particularly strong emphasis on knowledge generation, learning and information sharing/dissemination. First, the project will enhance and introduce new hazard and risk assessment modelling and mapping tools and generate definitive flood hazard, risk, and vulnerability maps for all basins in B&H. The project will train WA and HMI staff in the use and maintenance of these new tools and technologies. Furthermore, the project will develop damage and loss accounting methods, tools, and technologies.

42. The project is generating climate risk information which will be used to increase knowledge and provide information for all stakeholders including decision makers in progressing with climate resilient development. To enable wide reaching use and application of climate risk information the project is developing data sharing protocols to enable data/information exchange between water and other sectors relevant for integrated water management and climate change (agriculture, forestry, environment, spatial planning and hydro-energy sectors).

43. To enable access and sharing of climate risk information, a centralized information system and knowledge sharing platform will be developed, based on the project SDI and GeoPortal established by the Vrbas project, which comprises GIS database for all spatial data related to the basin flood risk management. The GeoPortal is a GIS-based tool which integrates various spatial socio-economic data with the flood hazard and flood risk maps, vulnerability maps including loss/damage models, real time hydro meteorological data, torrents sensitivity model, cadaster of torrents etc. The database was designed to be expandable to include other basins. The flood hazard information system to be developed under the project will consist of an integrated e-Library, databases (including the GIS database previously noted), information systems and knowledge portal. The web knowledge portal will help increase awareness, provide interactive hazard maps, with integration with social media and possible mobile application to increase community engagement and allow two-way flow of information. The GeoPortal will serve the municipalities for local level flood risk management to interact with communities through the PGIS tool within the platform and will be placed in the ownership of the entity and municipal civil protection units who will have responsibility for maintenance and update of the system in the future. In addition, UNDP has developed a Disaster Risk Analysis System which is an online data sharing platform for all disaster data. The project will contribute to the development of the platform and the embedding of flood hazard and risk information as well as expansion of the platform functionality to provide the specific functionality that will be required or using the flood hazard and risk information.

44. The flood risk management platform will be established as a country-wide mechanism for cross-entity, multi-sectoral and inter-disciplinary coordination and policy guidance on flood risk management and risk reduction with public, private, and civil society participation involving all concerned entities within B&H. The data sharing platform will coordinate all stakeholder engagement at the entity and local level and will pursue an all-of-society engagement in FRM. It would also have mechanisms for effective dialogue with Local Platforms in place in order to influence, encourage and coordinate local action. In parallel, the country-wide Platform will seek to understand local priorities and issues.

45. Under Activity 2.4, the project will implement country-wide training programmes in the technical and practical areas of flood risk management for practitioners, decision-makers, communities, emergency responders based on previous institutional capacity needs and gap assessment of state, entity. The project will embed training in FRM and the use of climate risk information in the relevant entity training institutions to improve the technical capacity and knowledge base for hazard and flood risk management, based on a Training of Trainers (ToT) through the development and establishment of training curricula, and rosters of trainers and the development of mechanisms for delivering long-term capacity development such as development of key partnerships with universities and other academic research institutions that can be forged to ensure long-term FRM training.

46. The project will implement a knowledge management (KM) framework (See Chapter 11 of the FS for detailed description of the KM framework). It will have the following key aims:

- To ensure access to data and information generated by the project as well as long-term access to data on which stakeholders' essential institutional functions rely and/or data and information that can be used for evidence for policy and practice advice (connecting people to information and knowledge)
- Connect key stakeholder groups, practitioners, and experts to ensure that key learning and experience is shared within and across sectors (connecting people to people)

- Ensure staff in the stakeholder institutions know about effective and relevant KM techniques so that knowledge is shared, captured, and retained by the institutions and shared within and across the sector (institutional KM improvement)

47. By developing and promoting KM as a tool for continuous and sustainable improvement and ensuring that KM tools generated by the project will be systematically used and maintained within the stakeholder institutions (Developing and embedding KM tools and practices).

Innovativeness, Sustainability and Potential for Scaling Up:

48. The project's sustainability and exit strategy is rooted in the key elements of design and implementation.

49. Investment in human resources and institutions: the project is focused on strengthening institutions that will have skilled human resources, information, tools and technologies to effectively pursue their mandate in climate risk management (Sub-activity 1.3.4 and Activity 2.4). The project investments will improve availability of climate risk information and create effective response mechanisms. This project will incorporate lessons learned and benefit from the existing collaborative relationship between UNDP and all the key flood risk management partners and will foster strong partnerships with and among relevant institutions to ensure shared goals and shared vision beyond the project. The project will help ensure sustainability by supporting all relevant government ministries in line with government policy, programme and strategic priorities. The establishment of methods and tools for developing and implementing flood risk management strategies, the introduction of risk assessment methods, standards, tools, guidance and regulatory documents make this project highly replicable within B&H. The embedding of risk assessment, risk management and risk reduction methods for flood hazards will be particularly important. Furthermore, this project has been developed with full awareness of other climate risk and flood risk related projects in the region, which makes it highly complementary, and potentially replicable to other projects regionally. As detailed above, this project plans to attract private sector investment – particularly in cost sharing regimes for long-term O&M for hydrometric equipment. Hence, by the end of the project, the activities and monitoring network will be self-sustaining into the future. In addition, all activities will be conducted in ways that empower local stakeholders. Capacity building programs set up will ensure the ongoing transfer of skills to create knowledge sharing and better climate services for the future. Hence, Sub-Activity 1.3.4: Develop and implement a capacity development plan for embedding flood hazard and risk modelling approaches and FFEWS into appropriate institutions in B&H, which in particular will conduct FFEWS training on the new system for all institutions involved in FFEWS as identified by institutional mapping and institutional arrangement plan for FFEWS, Activity 2.4 which will conduct training on proposed FRM policy and sectoral FRM, Sub-Activity 1.4.2 which will develop protocols and SOPs on data generation and data management for FRM Work Instructions / Directives / Standard Operating Procedures and Sub-Activity 2.1. which will develop country-wide floodplain zoning policy and legislation, based on hazard, risk and vulnerability mapping, flood resilient building codes and embed climate change considerations in the design and construction standards of critical infrastructure, will all ensure that strengthen institutional capacities and institutional arrangements, tools, technologies, enabling environments and policies, are in place within organizations when the project exits, thus ensuring sustainability, scalability and replicability of project interventions.

50. Investment in development of long-term climate risk financing: The project is developing fully articulated long-term municipal risk management plans for 10-12 highest risk municipalities and 1 canton, and sector resilience plans for highest risk sectors, which will set the direction for systematic risk informed sectoral flood risk management in the future. In addition, the project will develop long-term risk financing mechanisms and investment plans. Cost-benefit assessment methodologies and a socio-economic risk model will be embedded into the identification and design of climate proofed structural and non-structural measures and will form the basis of municipal investment planning. Risk financing mechanisms to be developed by the project, will ensure that long-term financial and economic resources are identified and available after GCF assistance ends and will ensure cost-effective financing of flood risk reduction measures, and investments over time. This will result in sustainable financing of FRM in B&H.

51. Investment in social and economic assets of vulnerable communities: The damaging effects of extreme events and changes in weather patterns exacerbated by climate change will limit the potential for socioeconomic development in vulnerable and isolated communities. However, investing in climate resilient structural and non-

structural measures (Activities 2.2 and 3.3) can help reduce the vulnerability of these areas. Flood defenses that are “climate proofed” will have structural stability and functional longevity under climate change. Furthermore, the development and implementation of climate-proofing standards for the design and construction of critical infrastructure, will strengthen the reliability of infrastructure and, in turn, reduce the impact on communities during flood events. Investment in EbA measures provides cost efficiency and long-term sustainability as EbA investments are self-sustaining in the long run, are adaptable, and require reduced OM costs. Hence, EbA solutions are an investment in social and economic assets that will provide sustained ecosystem services. This project will embed climate risk information and enhance the capacity to prioritize, budget, locate and deploy critical infrastructure that is functionally stable under climate hazards. This will help ensure the financial sustainability of critical infrastructure climate proofing efforts for the long-term.

52. Investment in natural capital: Securing long-term resilience and safeguard investments and communities against climate induced flood risk, by ensuring functional and protected watersheds, stable, climate resilient and well-managed natural capital (Activities 2.2 and 2.3), the project will be investing in long-term sustainability of communities and their social and economic assets through the investment in EbA solutions, and the derived ecosystem service attendant benefits of improved functions of catchments through effective flood risk management.

53. The project will develop an integrated river-basin development approach and will implement some of the structural and non-structural intervention measures in selected high priority areas. These will provide strong replicability impact as they will establish the methods, standards and approaches that will work across B&H and define these in guidance, legal and policy documents. The potential for scaling up these approaches is therefore significant. There is at least a threefold replication potential for the EbA measures, community based EWS, municipal risk management plans, natural disasters’ insurance schemes etc. Having in mind institutional and geographical similarities of all Western Balkans countries, there is a regional replication potential for all aspects of the project.

54. Post-project O&M: Co-financing from government and private sector will include budgeted O&M costs for a period well beyond the project duration. In terms of maintenance of the expanded hydrometric network, during and after the end of the project (please refer to co-funding letters, Annex 13).

55. In addition, the project will assist relevant government institutions in developing long-term O&M financial planning to ensure hydrometric network equipment, FFEWS and all systems implemented under the project will be maintained in the long-term. The project interventions have also been designed to strengthen financing and implementation of O&M for implemented structural and non-structural measures in the long-term. To this end, the project will address current and future requirements for maintenance by developing and embedding CBA, asset management and portfolio risk management methods that ensure the systematic identification and prioritization of the maintenance costs over the lifespan of the infrastructure.

56. Specifically, the project will provide the following safeguards to financial sustainability:

- Long-term investment planning for FRM including identification of long-term O&M financing needs
- Review budgetary requirements for long-term maintenance of hydrometric network and structural and non-structural interventions based on climate risk information to be developed by the project, and development of a financing model for the long-term maintenance (using cost-benefit modelling to support the financing model)
- Strengthening the approach to O&M for a harmonized O&M framework by implementing capacity development in O&M of the optimized hydrometric network
- Improve private sector involvement and partnership in the area of flood risk management.

### ***Digital Solutions<sup>3</sup>:***

57. The main technology transfer and development activities under the project are as follows:

- Under Activity 1.1 the project is enhancing the technologies for hydrometric monitoring. This will include the upgrade and modernization (automation) of stations, the development of the ICT systems that underpin

the hydrometric network databases and enables the efficient use of data from all sources in the modelling, mapping and forecasting of floods.

- Under Activity 1.2, the project will enhance the WBIF EUFD letter by a) developing hydrological modelling for all main basins (category I rivers), b) undertaking torrents hazard modelling, c) including HPPs and groundwater modelling in flood hazard, risk and vulnerability modelling and mapping for all relevant basins. These activities will rely on the transfer and scaling up of technologies and methodologies developed and applied under the Vrbas basin project. Furthermore, the project will introduce new technologies for modelling and development of climate risk-informed reservoir operation rules that minimizes downstream flood risk and damage, while maintaining dam safety within reasonable limits and optimizing water availability for power generation. This will be based on an integrated approach to basin flood risk management which includes adequate representation of HPP operations in the basin flood hazard and risk modelling and mapping, as well as in flood forecasting models, to enable real-time operational decisions during a developing flood. To this end, the project will incorporate HPP operations into flood hazard and risk modelling (to strengthen the role of HPPs in flood alleviation and maximize their capacity to utilize flood forecasts in their operations) in all relevant basins. The project will additionally develop sector-specific climate risk information tools and products for hydropower sectors with a particular focus on the Neretva and Trebisnjica sub-basins of the Adriatic Sea basin where there are large numbers of HPPs. This activity will also build on the bespoke GIS-based socio-economic flood risk and vulnerability model (which is based on EU flood Directive methodology for flood socio-economics assessment) developed for Vrbas basin which will be further enhanced with improved receptor and socio-economic datasets to be acquired/established by the project, integrate various spatial socio-economic data with the hazard maps, to produce risk maps, which will include economic losses and damages and loss of life estimates. In addition, the project will develop the technical methodology and tools for the systematic collection of socio-economic datasets that are important to flood risk and vulnerability modelling and assessment.
- Under Activity 1.3, the project will establish a fully-integrated impact-based flood forecasting and early warning system across the country, using state-of-the-art hydrometeorological modelling (hydrological and hydraulic models, DEM, etc.), forecasting (meteorological forecasting, use of ground weather radar, satellite imagery and aerial photography), EWS platform, telecommunications (GMS, internet, SMS, CCTV, TV and radio, walkie talkies, etc.) and information (GIS, web-based information portal and meta-databases, etc.) technologies. It will also create new climate and weather products (e.g. climate advisories) for various users (HPP and agriculture. Participatory “Last Mile” communication solutions tailored to the needs of local communities, including CBEWSs and demonstration of cost-effective risk reduction and community resilience measures through the combination of structural and non-structural protection measures, which are relatively new for B&H. Under this activity, the project will also enhance the ICT systems that will support the national integrated FFEWS platform, for near real time forecasting and warning dissemination.
- Under Activity 2.2 the project will scale up successful EbA approaches piloted by the UNDP/SCCF Vrbas River project and embed the tools and technologies that were developed to support long-term design and implementation of EbA measures.
- Under Activity 3.1, the project will expand and further develop flood insurance scheme initiated under Vrbas project and explore and identify other risk financing products and tools. This represents technology transfer which will embed risk-based natural disasters insurance and the relevant insurance models, tools and products in B&H.

58. The project will develop a unified methodology and relevant technical assessment tools for appraisal-led design of structural and non-structural measures using climate risk information and cost-benefit appraisal methods and application of methods to the detailed design of prioritized structural and non-structural measures.

59. Total GCF requested funds for technology transfer/development is approximately \$3.4 million USD.

## V. PROJECT MANAGEMENT

### *Cost Efficiency and Effectiveness*

60. The project addresses the fundamental barriers to achieving resilience to climate-induced floods through the provision of technical capacities, policies, and legislative enhancements, and by investing in structural and non-structural risk reduction measures, including EbA approaches. The combination of interventions related to ecosystem-based approaches and structural measures, as proposed by this project, has been shown to lead to significantly larger improvements in resilience to communities, compared to an approach focusing on one of those strategies. By addressing the capacity to undertake risk assessment and monitoring and to generate missing climate risk information, the project will lay the foundation for efficient and risk-informed flood risk management in the future. In addition, by addressing the legislative and policy gaps, the project is ensuring long-term sustainability of project interventions. Furthermore, the adoption of this holistic and integrated approach that addresses all the root causes, will have long-term efficiency and effectiveness benefits, compared to the ad hoc, ex-post, non-climate-responsive approach to flood risk management that is currently undertaken. Climate induced extreme events are estimated to result in \$21.1 million USD Expected Annual Damages (EAD) for households, businesses, agriculture and public buildings annually or \$ 422.7 million USD Expected Annual Damages (EAD) for 20 years of project, while the cost of the project is \$72,688,889 million USD.

61. Of the project's total proposed budget of \$72,688,889 million, GCF funding represents 19.8% of the estimated project cost and co-financing 80.2% (please see section B.5 for details on financing structure), 42% or \$30.74 million is proposed to be provided by the Government of B&H and 29% of the necessary budget resources is to be provided by the EIB in the form of senior loans. By bringing in substantial resources to the project, the Government of B&H, in spite of its economic and budget constraints mentioned above, demonstrates its commitment to the project and more strongly its moral responsibility to provide flood forecasting and early warning system (FFEWS) as an essential service to the population.

62. The most damaging floods in B&H (2010 – 1% of GDP and 2015 – 15%) have had devastating impacts on the most vulnerable groups including the rural poor, war returnees and displaced persons. The proposed project has the potential to prevent loss of life, property and critical infrastructure assets for 902,906 people representing approximately 26% of the entire population of B&H and 44% of the population of the 69 municipalities covered by the targeted sub-basins. This project will increase resilience and enhance livelihoods of the most vulnerable segments of population, particularly women (51.7%), children (15.2%) and the elderly (13.7% of the affected population). At a total project cost of \$72.69 million, this project aims to provide climate resilient flood risk protection and early warning system support at a cost of \$80.5 per direct beneficiary, which is comparable to other projects of similar nature.

63. Based on detailed economic analysis, the project has an economic internal rate of return (EIRR) of 19.3%. The economic analysis of the project was carried out in accordance with the Guidelines for the Economic Analysis of Projects of United Nations Development Program. The economic efficiency of the investment was determined by computing the economic net present value (NPV) with an assumed 10% discount rate, and the economic internal rate of return (EIRR). The economic analysis was conducted at both the national level, and then for each of the sub-basin included in the proposed investment project. The analysis shows that the proposed investment project is economically efficient as measured by NPV and IRR. The analysis also shows the proposed interventions are economically efficient in each of the sub-basins targeted by the project, with the exception of the Vrbas sub-basin which shows an EIRR slightly lower than 10%. Three different types of sensitivity analysis were conducted and demonstrated that the economic efficiency of the project as a whole is robust. There is thus a great level of confidence that the proposed investment project is economically efficient in each sub-basin of the target area, and as a whole.

64. GCF investment will catalyze \$57.5 million of co-financing from public and private sector. The project partners and beneficiaries will also secure O&M costs against all project supported infrastructure and hydrometric equipment. The public-good nature of this project outputs doesn't entail significant revenue generation or cost recovery from the project although the project will support engagement of the public sector for limited cost-recovery

to cover the operation and maintenance of monitoring and early warning systems. Where income generation opportunities might occur indirectly because of project outcomes, these would apply directly to the beneficiaries (for instance, improved agricultural productivity), primarily as household income.

65. Overall, the proposed solutions are based on successful best practices, community ownership, and synergies across the three outputs and inter-related activities and build upon ongoing efforts to ensure their efficiency and cost-effectiveness. The proposed activities and interventions will reach 902,906 people or 26% of the population at risk from flooding and will indirectly benefit 100% of the population through better economic resilience and stable GDP in the face of flood events.

### ***Project Management***

66. The project will be implemented by UNDP following UNDP's Direct Implementation Modality (DIM), according to the Standard Basic Assistance Agreement between UNDP and the Government of B&H (SBAA, 1995) and the policies and procedures outlined in the UNDP Programme and Operations Policies and Procedures (POPP) (see <https://info.undp.org/global/popp/ppm/Pages/Defining-a-Project.aspx>). UNDP will assume full responsibility and accountability for the overall project management, including monitoring and evaluation of project interventions, achievement of project outputs and specified results, the efficient and effective use of resources, and reporting to GCF.

67. The Government of B&H through the GCF NDA requested UNDP to deliver this project through the DIM modality. DIM modality is justified given the complexity of B&H's administrative set-up, that includes two self-governing entities and applies multi-layered administrative procedures. The DIM will be applied in a way to maximize cost-effectiveness and tailored capacity development of counterpart government institutions.

68. UNDP provides a three – tier oversight and quality assurance role involving UNDP staff in Country Offices and at regional and headquarters levels. This includes management of funds, programme quality assurance, fiduciary risk management, timely delivery of financial and programme reports to GCF and other requirements as per the AMA. The quality assurance role supports the Project Board by carrying out objective and independent project oversight and monitoring functions. This role ensures appropriate project management milestones are managed and completed. Project Assurance must be independent of the Project Management function; the Project Board cannot delegate any of its quality assurance responsibilities to the Project Manager. The project assurance role is covered by the accredited entity fee provided by the GCF. As an Accredited Entity to the GCF, UNDP is required to deliver GCF-specific oversight and quality assurance services including: (i) Day-to-day oversight supervision, (ii) Oversight of project completion, (iii) Oversight of project reporting. UNDP's responsibilities are outlined in the AMA that has been entered into between GCF and UNDP and will also be outlined in the FAA for this project. The FAA and AMA will govern UNDP's responsibilities for GCF. The 'Development Partner' role of UNDP is to represent the interests of the parties, which provide funding and/or technical expertise to the project (designing, developing, facilitating, procuring, implementing) and is covered by the accredited entity fee provided by the GCF. The Development Partner's primary function within the Board is to provide guidance regarding the technical feasibility of the project.

69. The implementation of the project will be carried out in collaboration and consultation with B&H GCF Focal Point, the Ministry of Foreign Trade and Economic Relations (MoFTER) and UNFCCC Focal Point, the Ministry of Spatial Planning, Construction and Ecology of the Republika Srpska (MSPCEE), and other relevant institutions as per stakeholder engagement plan.

70. The Project Manager (PM), under supervision of UNDP will run the project on a day-to-day basis within the constraints laid down by the Project Board. The Project Manager function will end when the final project terminal evaluation report and other documentation required by the GCF and UNDP has been completed and submitted to UNDP. The Project Manager is responsible for day-to-day management and decision-making for the project within the Annual Work Plan endorsed by the PB and approved by UNDP. The Project Manager's prime responsibility is to ensure that the project produces the results specified in the project document, to the required standard of quality and within the specified constraints of time and cost. The annual work plan is prepared by the Project Manager and reviewed and approved by PB. The Project Manager is also responsible for managing and monitoring the project risks initially identified and submit new risks to the Project Board for consideration and decision on possible actions



if required and update the status of these risks by maintaining the project risks log according to the DIM Guidelines. UNDP contracts the Project Manager, who should be different from UNDP's representative in the Project Board.

71. The Project Management Unit (PMU) will be hosted by the UNDP Country Office in B&H. The PMU will also include a safeguards officer who will be responsible for overseeing and coordinating the implementation of safeguards across the whole of the project, ensuring consistency of approach and reporting from the separate Water Agencies/contractors. The Safeguards Officer will support the application of the ESMP and other project safeguard documents so as to meet UNDP SES Standard requirements. The Safeguard officer will also be responsible for ensuring that SEP/GRM is functional.

72. The International Chief Technical Advisor (CTA) will provide regular technical guidance to the project management and technical teams in managerial and technical issues. He/she will be hired for a long-term during the entire project implementation period by UNDP based on UNDP recruitment procedures.

73. The International Safeguard Specialist will ensure implementation of ESMP, develop, and implement site specific environmental and social safeguards plan, as well address grievances.

74. Technical Advisory Working Groups (TAWG) will support the CTA and PM and will provide inputs to and endorsement of the design and quality of the project outputs. TAWGs members will be drawn from government, private sector, academia, and civil society to provide guidance and technical advice on the project (hydro-meteorological institutes, statistics institutes, agricultural institutes, local governments together with associations of cities and municipalities of Republika Srpska and Federation of B&H Environmental Protection Funds, the civil society and other local and international NGOs). A balanced representation of women and men in the TAWGs will be ensured.

75. A Gender Advisor will be engaged by the project and will be a member of all TAWGs to ensure that gender is adequately mainstreamed in all technical discussions.

## VI. PROJECT RESULTS FRAMEWORK

<p><b>Contribution to the Sustainable Development Goal (s):</b>  <b>SDG 1 Goal 1. End poverty in all its forms everywhere (Target 1.5</b> By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters);  <b>SDG9 Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation (Target 9.1</b> Facilitate sustainable and resilient infrastructure development in developing countries through enhanced financial, technological and technical support to African countries, least developed countries, landlocked developing countries and small island development states.);  <b>SDG11.1 Make cities and human settlements inclusive, safe, resilient and sustainable (Target 11b 11.b</b> By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management at all levels);  <b>SDG 13 Take urgent action to combat climate change and its impacts (targets:</b> 13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries; 13.2 Integrate climate change measures into national policies, strategies and planning; 13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning; 13.b Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries, including focusing on women, youth and local and marginalized communities)</p>				
<p><b>Intended Outcome as stated in the UNSDCF/Country [or Regional] Programme Results and Resource Framework:</b> <i>Outcome 1: 2025, people benefit from resilient, inclusive and sustainable growth ensured by the convergence of economic development, and management of environment and cultural resources.</i></p>				
<p><b>Applicable Output(s) from the UNDP Strategic Plan:</b> <b>1.1</b> The 2030 Agenda, Paris Agreement and other intergovernmentally-agreed frameworks integrated in national and local development plans, measures to accelerate progress put in place, and budgets and progress assessed using data-driven solutions;  <b>3.1 Institutional systems to manage multi-dimensional risks and shocks strengthened at regional, national, and sub-national levels</b></p>				
<p><b>Project title and Quantum Project Number: Scaling up climate resilient flood risk management in Bosnia and Herzegovina, PIMS 6360</b></p>				
<p><b>GCF Project/Programme Focus:</b></p> <p><input type="checkbox"/> Reduced emissions (mitigation)  <input checked="" type="checkbox"/> Increased resilience (adaptation)</p>				
<p><b>GCF IMPACT LEVEL – Paradigm shift potential:</b> <i>Copy from Table E2 in the GCF funding proposal (no changes can be made) These are pre-defined and selected from the GCF Integrated Results Management Framework (IRMF)</i></p>				
	Current state (Baseline)		Potential target scenario (Description)	How the project/programme will contribute (Description)
	Description	Rating		
<b>Scale</b>	FRM is currently done in a largely non-integrated manner by the relevant institutions in B&H, FRM covers mainly main river fluvial flooding and does not take account of torrential floods which is prevalent on small flashy upland catchments, nor groundwater flooding, nor HPP operation flood risk. FRM is currently limited in approach and is mainly focused on response, and limited implementation of costly, non-	<b>Low</b>	A nation-wide integrated risk-informed and climate-responsive approach to flood risk management will be established. The FRM capacities and coverage of the FFEWS established by the Vrbas project and other baseline projects will be scaled-up to national scale. The FFEWS will be extended to cover torrential floods and HPPs flood risk and will be impact-based. FRM will be undertaken in an integrated manner, including	<p>The following project activities will contribute to the paradigm shift through scaling-up FRM solutions:</p> <p>Activity 1.1. Upgrade and expand the coverage of the hydrometric network for enhanced monitoring of climate variables in Category I catchments and torrential streams contributes to the geographic and technological scaling up of the FFEWS in B&amp;H</p> <p>Activity 1.2. Enhance climate-induced flood hazard, risk and vulnerability information for strategic risk management and sound decision making for climate induced flood management - Under this activity, the EUFD maps will be enhanced to include flood risk from torrential streams, and HPPs, thus extending the technical scale/scope of hazard, risk and vulnerability information.</p> <p>Activity 1.3 Develop an integrated impact-based centralized and community-based flood forecasting and early warning system. - The project will develop impact based FFEWS for</p>

	<p>climate risk-informed structural measures.</p> <p>Spatial coverage of the hydrometeorological monitoring network is incomplete and needs technological upgrades. Availability and access to flood risk information is limited. The flood forecasting and early warning system is incomplete, fragmented, and non-impact-based, covering only Vrbas and Una-Sana basins.</p> <p>Baseline projects (see para 39 above) were limited in scope and/or geographical extent and budget, which in-turn, limited their transformational potential.</p>		<p>the national integrated flood forecasting and EWS with effective last-mile communication in place. All FRM stakeholders will have access to flood risk information for decision making and sectoral planning. Flood risk will be mainstreamed into key sectoral plans. Combination of structural, non-structural and EbA approaches to FRM with sufficient investment for implementing necessary measures.</p>	<p>main rivers which will be scalable to cover sub-basins as necessary. Importantly, the flood forecasting will include all relevant flooding mechanisms and will also be scaled to provide specific sector flood forecasting products for Hydropower and agriculture sectors.</p> <p>Activity 2.1 Mainstream climate induced flood risk reduction into sectoral planning (agriculture, hydropower, critical infrastructure) and spatial planning - The project is mainstreaming climate risk reduction into key sectors, which can be scaled up to cover more sectors in the future.</p> <p>Activity 3.1 Develop investment framework for climate induced flood risk reduction and management and will lay the ground and identify financing framework for further replication and scaling up of climate informed FRM at the national level.</p>
<b>Replicability</b>	<p>Currently there is limited capacity to replicate successful FRM project-based initiatives (such as Vrbas) due to lack of sustainable financing for FRM, despite the high replicability value of Vrbas project, which established a Vrbas basin-level integrated FRM framework.</p>	<u>Low</u>	<p>Strengthened institutional and technical capacities, financing frameworks, and enabling environment for climate informed FRM will enable replication of results throughout B&amp;H. The project will replicate successful technologies and practices piloted by the earlier project and will further extend these by introducing new technologies and innovations such as Impact-based forecasting (IBF), forecast-based financing (FbF), blended risk financing and risk transfer mechanisms. The project will establish new partnerships with the private sector to leverage and scale up climate informed FRM investments, and will embed methods for, and implement climate resilient structural measures as well as eco-system based non-structural measures. The project will</p>	<p>Activity 1.3 Develop an integrated impact-based centralized and community-based flood forecasting and early warning system. - Under this activity CBEWS will be developed for 60 high-risk communities which can be replicated to other communities.</p> <p>Activity 1.4: Develop and implement protocols and SoPs on data generation, data management and communication for effective impact based FFEWS and flood risk management contributes to the uptake and replication of technical and institutional FFEWS solutions across B&amp;H.</p> <p>Activity 2.2 Implement and mainstream new ecosystem-based flood risk reduction and climate change adaptation methods. – The project is implementing 21 prioritized non-structural and EBA measures with significant potential for replicating in other basins using the standardized designs being developed under Activity 2.3. Codify and mainstream EbA solutions into policies and regulations and promote non-structural measures among decision-makers and communities.</p> <p>Activity 3.3 Implement climate-proof structural flood risk reduction and anti-erosion interventions in Vrbas, Una-Sana, Bosna and Drina River basins – GCF funds are being used to climate proof the designs of structural measures which will be financed by the Government through the EiB loan. The methods for using climate risk information in the design of flood structural measures will be developed under Activity 2.1 and will provide the basis for replication in the future. Replication will be possible as a result of Activities 3.1 and 3.2, which build financing and investment framework/plans for the FRM at the national, cantonal and municipal level.</p>

			develop/update, codify and embed new SOPs, institutional guidelines and methodologies for the adoption and replication of new methods and technologies. These initiatives will ensure continued practice of embedded integrated FRM and enable the project to be highly replicable within B&H and across the region.	
<b>Sustainability</b>	Flood risk management in B&H has been undertaken mainly through donor-funded projects implemented by or in partnership with relevant ministries. In some cases, the sustainability of these initiatives has been limited due to the limited technical and geographic scope of such projects and lack of sustainable government financing to continue the initiatives beyond the life of the projects. Long-term O&M financing for equipment, technologies and FRM structural and non-structural measures is lacking. Long-term financing for the regular update, generation, sharing of climate risk information and for development of regular update of technical standards and guidelines is lacking. Long-term continuous capacity development and continued professional development in the field of FRM is missing.	<u>Low</u>	Long-term technical, financial, and institutional capacities for FRM are strengthened and mechanisms in place for long-term O&M of equipment and technologies, continued capacity development. O&M plans and Capacity development plans established and updated regularly. Method, tools and technology embedded into the relevant institutions, for the long-term generation, updating and availability of climate risk information. Platforms for sharing climate risk information and collaboration on FRM established and functional and include all-of-government and all-sectors stakeholders.	<p>Activity 1.1 Upgrade and expand the coverage of the hydrometric network for enhanced monitoring of climate variables - Under Sub-activity 1.1.3 the project will set-up sustainable operation and maintenance O&amp;M for the network and under Sub-Activity 1.1.4 will develop long-term financing mechanisms for the maintenance of the hydrometric network. This will ensure the sustainability of the rehabilitated hydrometric monitoring network on which all FRM activities will rely in the future.</p> <p>Activity 1.2. Enhance climate-induced flood hazard, risk and vulnerability information for strategic risk management and sound decision making for climate induced flood management - This activity will ensure the definitive climate risk information which will ensure that climate risk activities and decision making will result in sustainable solutions. It will also embed the method, tools and technology into the relevant institutions, to ensure long-term generation, updating and availability of climate risk information. Activity 1.4 Develop and implement protocols and SoPs on data generation, data management and communication for effective impact based FFEWS and flood risk management, will provide the basis for institutional collaboration, and data sharing on FRM in the future.</p> <p>Sub-Activity 1.3.4: Develop and implement a capacity development plan for embedding flood hazard and risk modelling approaches and FFEWS into appropriate institutions in B&amp;H, which in particular will Conduct FFEWS training on the new system for all institutions involved in FFEWS as identified by institutional mapping and institutional arrangement plan for FFEWS and Activity 2.4 Review and strengthen institutional capacity and develop long-term institutional capacity development plans for climate resilient FRM will develop the institutional capacity development plan for long term FRM in B&amp;H and will conduct training on proposed FRM policy and sectoral FRM. The long-term CDP will ensure sustainability and continuous upgrading of capacities for FRM.</p> <p>Activity 2.1 Mainstream climate induced flood risk reduction into sectoral planning (agriculture, hydropower, critical infrastructure) and spatial planning - mainstreaming climate risk reduction into key sectors will strengthen the policy framework for FRM and result in sustainable FRM in the future.</p> <p>Activity 2.2 Implement and mainstream new ecosystem-based flood risk reduction and climate change adaptation methods and 2.3. Codify and mainstream EbA solutions into</p>

				policies and regulations and promote non-structural measures will build the natural capital of B&H and provide improved eco-system services which will be more sustainable than traditional hard structural measures which inevitably have a limited lifespan.		
	Objective and Outcome Indicators	Baseline	Mid-term Target	End of Project Target	Assumptions	
SDG indicators	Copy the SDG indicator(s) linked to the SDG goal listed in the top line of this table. See <a href="http://unstats.un.org/sdgs/indicators/database/">http://unstats.un.org/sdgs/indicators/database/</a> for more information	See <a href="http://unstats.un.org/sdgs/indicators/database/">http://unstats.un.org/sdgs/indicators/database/</a>	Expected status a mid- point of project implementation	Expected status a project closure	Note how project data will link with national statistics offices or other bodies monitoring SDG indicators	
GCF OUTCOME LEVEL : Reduced emissions and increased resilience (IRMF Core Indicators, quantitative indicators)						
GCF Results Area	IRMF Indicator	Means of Verification (MOV)	Baseline	Mid-term Target	End of Project Target	Assumptions
	<u>Core 2: Direct and indirect beneficiaries reached</u>	Periodic condition inspection and performance evaluation reports of Water Agencies and Hydrometeorological Institutes of structural, non-structural and EBA measures and of the FFEWS. Independent evaluation of the operations and performance of the impact based FFEWS; independent evaluation reports; project reports	0	Direct: 399,723 (203,858 women, 195,864 men)  Indirect: 998,622 people (0.505 million women; 0.485 million men)	Direct: 799,445 people (407, 717 women, 391,728 men)  Indirect: 1,977,244 people (1.01 million women; 0.969 million men)	Methodology for estimating adaptation beneficiaries is summarised in Annex 22.  Based on PFRA hazard maps combined with physical and socio-economic data for all receptors, socio-economic risk modelling has been undertaken to estimate the beneficiaries of the project under baseline and climate change (2050) scenarios for each of the five most vulnerable sub-basins in B&H (Una-Sana, Vrbas, Bosna, in the Sava basin, and Neretva and Trebišnjica in the Adriatic Sea basin) <sup>4</sup> . The modelling shows that 799,445 people and 272,811 households are currently at risk from floods. Under climate change, by 2050 the number of affected people and households will increase to 902,906 people and 306,907 households. A conservative estimate of 799,445 beneficiaries (i.e. present-day population at risk) is used

<sup>4</sup> See Section 2.3 and Annex E of the FS.

						<p>as this is the number that will benefit by the end of the 6- year GCF project.</p> <p>The maximum indirect beneficiaries is estimated as the rest of the population, given that people in low risk areas will also have access to the early warnings via the same media and can act accordingly when in at risk areas. The rest of the population also will benefit from reduced flood economic damages and losses, as this has an indirect impact on GDP when there is a need to rebuild/rehabilitate infrastructure after every flood etc. Therefore, population at large will benefit from the reduced disruption of businesses, logistics and infrastructure, reduced budget spendings on recovery and compensations. However, a conservative estimate of 80% of the rest of the population is used as the number of indirect beneficiaries.</p> <p>It is assumed that the occurrence of major extreme weather or seismic events do not deviate project trajectory and that.</p> <p>Relevant government agencies cooperate on the implementation of all project interventions.</p>
<u>ARA1 Most vulnerable people and communities</u>	<u>Core 2: Direct and indirect beneficiaries reached</u>	Independent evaluation of the operations and performance of the structural, non-structural and EbA measures in protection the most vulnerable communities. Periodic condition inspection and	0	Direct: 11,258 <sup>5</sup> people (5,513 men; 5,745 women)  protected from extreme floods through structural and EbA measures in 5 basins (Vrbas, Una-Sana, Bosna, Neretva and Trebisnjica river basins)	Direct: 22,516 people (11,026 men; 11,490 women)  protected from extreme floods through structural and EbA measures in 5 basins (Vrbas, Una-Sana, Bosna,	<p>Methodology for estimating adaptation direct beneficiaries is summarised in Annex 22.</p> <p>Modelling and consultation with Water Agencies was undertaken to identify the most vulnerable communities where structural, non-structural measures and EbA measures could provide protection and save</p>

<sup>5</sup> Please see sections 18.9 and 18.10 of the FS which provide detailed descriptions of the methodologies used to calculate the benefits of the 21 non-structural and 10 structural measures that will be implemented under the project.

		<p>performance evaluation reports of Water Agencies and Hydrometeorological Institutes of structural, non-structural and EbA measures</p> <p>Independent Impact Evaluation surveys and reports which will assess change in vulnerability of communities at project mid-term and end-term compared to baseline.</p>		<p>Indirect: 370,670 (189,041 women, 181,628 men) people living in the municipalities where structural and EbA protection measures will be implemented</p>	<p>Neretva and Trebisnjica river basins)</p> <p>Indirect: 741,339 (378,083 women, 363,256 men) people living in the municipalities where structural and EbA protection measures will be implemented</p>	<p>lives, in addition to the early warning system. Number of beneficiaries is defined through the modeling and preliminary design of the proposed flood protection measures. Direct beneficiaries are those who will be directly protected by flood protection interventions. Indirect beneficiaries are remaining present day population at risk in the municipalities where the interventions will be implemented and who will benefit through reduced loss and disruption to critical infrastructure assets and reduced disruption of logistics/businesses by the end of the 6-year project.</p> <p>Assumptions:</p> <p>The occurrence of major extreme weather or seismic events do not deviate projected trajectory</p> <p>Relevant government agencies cooperate on the implementation of the FFEWS, data management and EbA measures</p>
<p><u>ARA2 Health, well-being, food and water security</u></p>	<p><u>Core 2: Direct and indirect beneficiaries reached</u></p>	<p>Project reports</p> <p>Independent evaluation of the operations and performance of the impact based FFEWS</p>	0	<p>Direct: 388,465 (198,117 women, 190,348 men) with access to early warnings;</p> <p>Indirect: 997,628 people (0.51 million women; 0.49 million men)</p>	<p>Direct: 776,929 (396,234 women, 380,695 men)) with access to early warnings</p> <p>Indirect: 1,995,257 people (1.02 million women; 0.978 million men)</p>	<p>Methodology for estimating adaptation beneficiaries is summarized in Annex 22.</p> <p>The total direct beneficiaries are people at risk of flooding whose health, wellbeing, food and water security will be improved as a result of enhanced access to timely early warning and climate information. It is calculated as the present-day population at risk minus beneficiaries of the structural, non-structural and EbA measures to avoid double counting of beneficiaries.</p> <p>Indirect beneficiaries are estimated as the rest of the population of B&amp;H,</p>

						given that people in low-risk areas will also have access to the early warnings and climate information via the same media and can act accordingly when in at risk areas. They will therefore also have indirect health, wellbeing, livelihoods, food and water security benefits. In order to avoid double counting of direct and indirect beneficiaries, people who will benefit from both structural/EbA flood protection measures (included under ARA 1) and also from the FFEWS were excluded from the estimation of direct beneficiaries under ARA 2. In addition, a conservative estimate of 80% of the rest of the population is used as the number of indirect beneficiaries.
<u>ARA2 Health, well-being, food and water security</u>	<u>Supplementary 2.4: Beneficiaries (female/male) covered by new or improved early warning systems</u>	<p>Project reports</p> <p>Independent evaluation of the operations and performance of the impact based FFEWS</p>	Currently 156,973 at risk people (80,056 women and 76,917 males) in Una-Sana basin and 213,740 (109,007 women and 104, 733 males) in Vrbas basin (41% of total at risk population) covered by FFEWS.	Direct: 388,465 (198,117 women, 190,348 men) with access to early warnings;	Direct: 776,929 (396,234 women, 380,695 men)) with access to early warnings	<p>Methodology for estimating adaptation beneficiaries is summarized in Annex 22.</p> <p>The number of beneficiaries by the end of the 6-year project is calculated as the present-day population at risk minus beneficiaries of the structural, non-structural and EbA measures to avoid double counting of beneficiaries.</p> <p>The occurrence of major extreme weather or seismic events do not deviate projected trajectory.</p> <p>Relevant government agencies cooperate on the implementation of the FFEWS, data management and EbA measures</p>
<u>ARA3 Intrastructure</u>	<u>Core 3: Value of physical assets made more resilient to the effects of climate change and/or more able to reduce GHG emissions</u>	Independent evaluation of the standard of protection provided by	0	\$250.9 million USD value of household assets and \$54.5 million USD value of business	\$501.8 million USD value of household assets	Structural and non-structural measures meet their design standards in reducing the risks to population and



<u>and built environment</u>		the project-implemented measures.		assets made more resilient to the effects of climate change in 6 target basins by structural, non-structural and EbA measures;  Una/Sana, Vrbas, Bosna, Sava/Ukrina, Drina, Neretva/treb	and \$109 million USD value of business assets made more resilient to the effects of climate change in 6 target basins by structural, non-structural and EbA measures;  Una/Sana, Vrbas, Bosna, Sava/Ukrina, Drina, Neretva/treb	reduction in agricultural and other economic losses.  The occurrence of major extreme weather or seismic events do not deviate projected trajectory
<u>ARA3 Infrastructure and built environment</u>	<u>Supplementary 3.1: Change in expected losses of economic assets due to the impact of extreme climate-related disasters in te geographic area of the GCF intervention</u>	Project reports  Municipality post-flood assessment reports data	0  (Economic loss exposure equivalent to 15% of GDP).	\$41.8 million USD reduction in expected economic losses to households and 9.5 million in business assets in 6 target basins by structural, non-structural and EbA measures;  Una/Sana, Vrbas, Bosna, Sava/Ukrina, Drina, Neretva/treb	\$83.5 million USD reduction in expected economic losses to households and 19 million in business assets in 6 target basins by structural, non-structural and EbA measures:  Una/Sana, Vrbas, Bosna, Sava/Ukrina, Drina, Neretva/treb	Structural and non-structural measures meet their design standards in reducing the risks to population and reduction in agricultural and other economic losses.  The occurrence of major extreme weather or seismic events do not deviate projected trajectory
<u>ARA3 Infrastructure and built environment</u>	<u>Supplementary 2.6: Beneficiaries (female/male) living in buildings that have increased resilience against climate hazards</u>	Independent evaluation of the standard of protection provided by the project-implemented measures.	0	Direct: 11,258 <sup>6</sup> people (5,513 men; 5,745 women), whose houses are protected from extreme floods through structural and EbA measures in 5 basins (Vrbas, Una-Sana,	Direct: 22,516 people (11,026 men; 11,490 women) whose houses are protected from extreme floods through structural and EbA measures	Structural and non-structural measures meet their design standards in reducing the risks to population and reduction in agricultural and other economic losses.

<sup>6</sup> Please see sections 18.9 and 18.10 of the FS which provide detailed descriptions of the methodologies used to calculate the benefits of the 21 non-structural and 10 structural measures that will be implemented under the project.

				Bosna, Neretva and Trebisnjica river basins)	in 5 basins (Vrbas, Una-Sana, Bosna, Neretva and Trebisnjica river basins)	The occurrence of major extreme weather or seismic events do not deviate projected trajectory
<u>ARA4 Ecosystems and ecosystem services</u>	<u>Core 4: Hectares of natural resources brought under improved low-emission and/or climate-resilient management practice</u>	WA's and HMI's periodic and post-event survey reports and performance evaluation reports on hectares of land protected by structural, EBA and non-structural measures.	0  Institutional and technical capacities for the design and implementation of non-structural and EbA FRM measures are absent or very limited.  No EBA FRM measures in place  Non-structural flood protection measures implemented in Vrbas basin only	2,540 ha of land protected from extreme floods through non-structural and EbA measures in 4 basins (Neretva, Una-Sana, Bosna, Vrbas) with GCF funds;	5,081 Ha of land Protected from extreme floods through non-structural and EbA measures in 4 basins (Neretva, Una-Sana, Bosna, Vrbas)	WA's, Municipalities, and community members are willing and able to implement climate-resilient non-structural and EbA design and development practices.
<u>ARA4 Ecosystems and ecosystem services</u>	<u>Supplementary 4.1: Hectares of terrestrial forest, terrestrial non-forest, freshwater and coastal marine areas brought under restoration and/or improved ecosystems</u>	WA's and HMI's periodic and post-event survey reports and performance evaluation reports on hectares of land protected by	0  Institutional and technical capacities for the	100 ha afforested to meet anti-flood and anti-erosion requirements.  40 ha of re-grassing as part of EBA measures	200 ha afforested to meet anti-flood and anti-erosion requirements.	WA's, Municipalities, and community members are willing and able to implement climate-resilient non-structural and EbA design and development practices.

		structural, EBA and non-structural measures	design and implementation of non-structural and EbA FRM measures are absent or very limited.  No EBA FRM measures in place  Non-structural flood protection measures implemented in Vrbas basin only		80ha of re-grassing as part of EBA measures	
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GCF OUTCOME LEVEL: Enabling environment (IRMF Core Indicators, qualitative indicators)					
Core Indicators	Baseline context (description)	Rating for current state (baseline)	Target scenario (description)	How the project will contribute	Coverage
<u>Core Indicator 5: Degree to which GCF investments contribute to strengthening institutional and regulatory frameworks for low emission climate-resilient development pathways in a country-driven manner</u>	<p>Lack of protocols, updated methodologies, standards, and tools. 15% of protocols in place;</p> <p>Lack of climate risks mainstreamed into sectoral policy. CC-induced FRM not mainstreamed into policies. Technical regulations and guidance on ecosystem based FRM are largely lacking.</p>	<u>low</u>	<p>Rating: High</p> <p>80% of protocols, methodologies, standards for FRM in place;</p> <p>Policies, regulations, technical guidance exist and enforced. 6 policies and technical guidelines developed and implemented and enforced in 6 target basins, flood risk reduction mainstreamed into Hydropower, Agriculture, and Forestry sectoral policies; floodplain zoning policy and development control.</p> <p>Critical infrastructure technical guidelines.</p>	<p>Implemented protocols – Activity 1.4</p> <p>Updated methodologies, standards, and tools for FRM – Activities, 1.2, 1.3</p> <p>Climate-induced flood risk mainstreamed into sectoral policies (Hydropower, Agriculture, and Forestry sectoral policies; floodplain zoning policy and development control) – Activity 2.1</p> <p>Technical guidelines for climate proofed critical infrastructure design – Sub-Activity 2.1.3</p> <p>Technical guidelines EbA technical guidelines developed – Activity 2.3</p>	<u>National level (one country)</u>

			EbA technical guidelines		
Core Indicator 6: <u>Degree to which GCF investments contribute to technology deployment, dissemination, development or transfer and innovation</u>	<p>Incomplete hydrometric network with only 20% of the network using modern automatic observation equipment.</p> <p>Limited climate-induced flood hazard and risk modelling and mapping using modern methodologies, models and technologies (EUFD modelling, and mapping completed for Vrbas basin only).</p> <p>Modern FFEWS systems using updated data products and technologies to provide climate risk information in operational decision making on flood risk response available for Vrbas and Una_Sana basins (2 of 6 basins) only.</p> <p>No sector-specific climate risk information or products available</p> <p>An FRM data sharing portal is developed for Vrbas basin (Vrbas Geo-Portal)</p>	<u>low</u>	<p>Rating: High</p> <p>Rehabilitated and complete hydrometric observation network using updated automatic observation stations and latest technologies in place in all basins.</p> <p>Enhanced EUFD hazard and risk models and maps available for 6 basins and used in decision making in those 6 basins.</p> <p>Impact-based FFEWS operational for all 6 basins and provides climate risk forecasts and warnings to population.</p> <p>At least 2 sectors specific FFEWS products are used in decision-making (Sector-specific climate information product/services for HPP and agric);</p> <p>Operational cross-sectoral platform for sharing and use of CC FRM data with relevant data sharing protocols</p>	<p>Rehabilitated and complete hydrometric observation network - Activity 1.1</p> <p>Enhanced EUFD hazard and risk models and maps - Activity 1.2</p> <p>Impact-based FFEWS operational for all 6 basins - Activity 1.3</p> <p>At least 2 sectors specific FFEWS products (HPP and agric) - Sub-Activity 1.3.3</p> <p>Cross-sectoral platform established and operational – Sub-activity 1.4.3</p>	<u>National level (one country)</u>
Core indicator 8: <u>Degree to which GCF investments contribute to effective knowledge generation and learning processes, and use of good</u>	<p>Limited knowledge and capacities on hazard, vulnerability and risk assessment and modelling. 15% of practitioner with relevant capacities</p> <p>Limited knowledge and capacities in forecasting and</p>	<u>low</u>	<p>Rating: Medium</p> <p>75% of hazard, vulnerability and risk modelling practitioners with relevant capacities;</p> <p>Capacity development plan for embedding flood hazard and risk modelling approaches and FFEWS into appropriate institutions in B&amp;H</p> <p>Best-practice guidelines, technical specification, standards and protocols, and knowledge portals</p>	<p>Strengthened hazard and risk monitoring, modelling, – Activities 1.1, 1.2,</p> <p>Capacity development plan for embedding FFEWS into relevant institutions in B&amp;H - Activity 1.3</p> <p>Best-practice guidelines, technical specification, standards and protocols for the application of EbA and non-structural measures; knowledge portal and common resource center to collect, collate and share knowledge and fill these gaps to advance uptake of</p>	<u>National level (one country)</u>

<u>practices, methodologies and standards</u>	<p>EW. Communities lack timely flood forecast and early warning.</p> <p>Lack of experience, knowledge, practice methods and good practice guidelines on EbA .</p> <p>Limited knowledge and capacities on flood risk management</p>		<p>established for the application of EbA and non-structural measures.</p> <p>At least 50% increase over baseline in institutional capacity within WA'. HMLs, municipalities (in 6 basins);</p> <p>FRM training embedded in existing government training programmes for long-term FRM training in B&amp;H</p>	<p>nature-based solutions; Knowledge portal for collaboration between specialists to allow co-working and knowledge sharing - Activity 2.3</p> <p>FRM training embedded in existing government training programmes for long-term FRM training in B&amp;H in the following topics: Flood hazard and risk assessment, hydrometry, forecasting and modelling, EWSs; Vulnerability and Risk Assessment; River basin flood risk management planning and the use of climate information - Activity 2.4</p>	
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PROJECT/PROGRAMME SPECIFIC INDICATORS: (Outputs):						
Project Results (Outputs)	Indicator	Means of Verification (MOV)	Baseline	Mid-term Target	End of Project Target	Assumptions
Output 1. Fully integrated impact-based flood forecasting and EWS facilitates timely preparation and response	1.1 Number of new hydro-meteorological monitoring equipment purchased, installed and operational	Project reports, evaluation reports, site observations	<p>Hydrometric monitoring network inadequate.</p> <p>Existing stations by basin:</p> <p>Una/Sana - 17 Meteo, 28 hydro.</p> <p>Vrbas- 25 (meteo), 18 (hydro);</p> <p>Bosna – 35 (meteo), 65 (hydro);</p> <p>Sava/Ukrina- 1 (meteo), 1 (hydro);</p>	<p>Hydro-meteorological observation network expanded with 9-Groundwater monitoring stations; 24- rehabilitated piezometers; 18-new piezometer 100 and 200 m deep.</p> <p>10- boreholes with average depth up to 50 m; 30- boreholes with average depth up to 30 m; 26-Meteorological stations; 23-Hydrological stations</p>	<p>Hydro-meteorological observation network expanded with 9-Groundwater monitoring stations; 24- rehabilitated piezometers; 18-new piezometer 100 and 200 m deep.</p> <p>10- boreholes with average depth up to 50 m; 30- boreholes with average depth up to 30 m; 26-Meteorological stations; 23-Hydrological stations</p> <p>GCF-funded Stations by basin:</p> <p>Una/Sana - 6 Meteo; 12 hydro;</p>	<p><u>Assumptions:</u> Government commitments to secure adequate O&amp;M of monitoring equipment, relevant software and databases are fulfilled on a continuous basis both during the project implementation and afterwards</p> <p>Capacities built across relevant institutions through the project are maintained and periodically updated.</p> <p>Relevant government institutions cooperate on the implementation of the FFEWS and data management.</p> <p><u>Risks/Externalities:</u> Failure of institutions to agree protocols for FFEWS and/or failure to engage local</p>

			Drina – 15 (meteo), 28 (hydro); Neretva/treb – 3 (meteo), 38 (hydro);	GCF-funded Stations by basin: Una/Sana - 6 Meteo; 12 hydro; Vrbas- 5 (meteo), 12 (hydro); Bosna – 7 (meteo), 11 (hydro); Sava/Ukrina- 1 (meteo), 21 (hydro); Drina – 1 (meteo), 11 (hydro); Neretva/Treb – 6 (meteo), 47 (hydro);	Vrbas- 5 (meteo), 12 (hydro); Bosna – 7 (meteo), 11 (hydro); Sava/Ukrina- 1 (meteo), 21 (hydro); Drina – 1 (meteo), 11 (hydro); Neretva/treb – 6 (meteo), 47 (hydro);	<i>communities in CBEWS resulting in non-integrated national FFEWS and incomplete last mile coverage</i>
	1.2. Number of river basins for which enhanced flood hazard and risk maps and FFEWS are available and in use by institutional beneficiaries (Water Agencies, Hydrometeorological Institutes, and sectors: agriculture, hydropower, critical infrastructure and spatial planning)	Project reports, evaluation reports, monitoring and risk assessment products  Knowledge system: e-library, created databases, information systems, knowledge portal  Project surveys  Performance assessment reports for FFEWS.	0  Lack of key data sets for development of hazard and risk models; flood risk maps and vulnerability assessment available only for Vrbas Basin;  FFEWS platforms available for only two river basins (Vrbas and Una-Sana)	All 6 river basins (3,859,800 ha) with enhanced flood hazard and risk maps  All 6 river basins with impact based FFEWS  90% of surveyed institutional users water agencies, HMI, and sectoral institutions use FRM hazard and risk information in of sectoral planning, practice and decision-support functions;  All relevant institutions have access to timely impact based FFEWS warnings.	All 6 river basins (3,859,800 ha) with enhanced flood hazard and risk maps  All 6 river basins with impact based FFEWS  90% of surveyed institutional users water agencies, HMI, and sectoral institutions use FRM hazard and risk information in of sectoral planning, practice and decision-support functions;  All relevant institutions have access to timely impact based FFEWS warnings.  Institutions responsible for warning and response have 50% improvement in warning lead times and accuracy.	<u>Baseline data sources:</u> WA and HMI Strategic plans  <i>Sectoral institution covering the following sectors at all levels of governance: Agriculture, hydropower, forestry, critical infrastructure and spatial planning.</i>  Ministry of Foreign Trade and Economic Relations of Bosnia and Herzegovina (MoFTER, GCF focal point), The Ministry for Spatial Planning, Civil Engineering and Ecology (MSPCEE), Ministry of Agriculture, Water Management, and Forestry of Federation of B&H, Ministry of Agriculture, Forestry, and Water Resources of Republika Srpska, State, Entity and Canton Red Cross , Association of Cities and Municipalities , Entity, Canton and municipal Civil Protection, Hydropower Companies.

				Institutions responsible for warning and response have 50% improvement in warning lead times and accuracy.		
	1.3 Status of implementation of protocols and SoPs on data generation, data management and communication for effective FFEWS and flood risk management introduced by the project	Project reports, evaluation reports, monitoring and risk assessment products	Data sharing platform protocol developed for Vrbas and <u>Una-Sana</u> .	<p>WA's, HMIs and relevant institutions in 50% of basins with access to and using data sharing protocols, including:</p> <p>a) SoPs for "last-mile" warning and dissemination and communication system, b) Protocols and SOPs on data generation, data management for FRM, c) data sharing protocols and platform for climate data, across all government institutions in both entities including spatial Data Infrastructure to be developed/enhanced to ensure climate data flow/exchange</p>	<p>WA's, HMIs and relevant institutions in 100% of basins with access to and using data sharing protocols, including:</p> <p>a) SoPs for "last-mile" warning and dissemination and communication system, b) Protocols and SOPs on data generation, data management for FRM, c) data sharing protocols and platform for climate data, across all government institutions in both entities including spatial Data Infrastructure to be developed/enhanced to ensure climate data flow/exchange</p>	
Output 2. Non-structural flood risk reduction measures and nature-based solutions mainstreamed in sectoral policies and plans and effectively	2.1. Number and level* of enforcement of sectoral policies, regulations and technical guidelines with climate induced flood risk reduction, including EbA, mainstreamed	Project reports – policy reviews, evaluation reports, independent evaluation report.  B&H CCA M&E system	Level 1  CC-induced FRM not mainstreamed into policies. Technical regulations and guidance on ecosystem based FRM are largely lacking. Floodplain zoning policy developed for Vrbas river basin.	Level 2  4 policies, and technical guidelines developed and implemented in 3 target basins;  flood risk reduction mainstreamed into Hydropower, Agriculture and Forestry sectoral policies;	Level 3  6 policies and technical guidelines developed and implemented and partially enforced in 6 target basins  flood risk reduction mainstreamed into Hydropower, Agriculture and Forestry sectoral policies;	<p>Government has political will to implement relevant regulatory reform to embed CC-induced FRM in relevant institutions and are willing to conduct regulatory and institutional reform</p> <p>Capacities created as a result of project are maintained and periodically upgraded;</p> <p>Women involvement is encouraged</p>

contribute to protection of people and livelihoods from climate-induced flood risks.	as a result of the project	under the NAP.  Sector-specific compliance reports for Energy, Forestry and Agriculture.		floodplain zoning policy and development control;	floodplain zoning policy and development control.  Critical infrastructure technical guidelines  EbA technical guidelines	Various Sectoral Ministries; willingness to engage in the programme and transfer received know-how to stakeholders;  Government engages in each step of the development of the sectoral policies, endorses it officially and takes a commitment to implement it through allocation of relevant funds for implementation of priority measures and/or resource mobilization
	2.2. % increase in the level of institutional capacity for implementation of FRM and FFEWS among key government agencies over baseline	Institutional capacity assessment scorecard for all institutions (entity ministries, two Water Agencies, and two HMIs) Project reviews, independent evaluation report.	Lack of coherent institutional capacity development framework that embeds FRM and FFEWS capacities into relevant institutions  Baseline level of institutional capacities to be established during Year 1 of the project	At least 25% increase over baseline in institutional capacity (technical capacity: knowledge, skills, systems, technologies), within WA'. HMIs, municipalities (in 3 basins);	At least 50% increase over baseline in institutional capacity (technical capacity: knowledge, skills, systems, technologies) within WA'. HMIs, municipalities (in 6 basins);  FRM training embedded in existing government training programmes for long-term FRM training in B&H	*Level 0 - Policies do not exist;  Level 1 – Some fragmented policies designed but the policy framework is incomplete;  Level 2 - policy and regulatory framework designed but not enforced  Level 3 - policies, regulations, technical guidance exist and partly enforced;  Level 4 – policies, regulations, technical guidance enforced  Detailed institutional capacity assessment will be undertaken based on scorecards which will provide a baseline at the start of the project and short-medium and long-term targets. The Detailed Capacity Development plan will be developed and priority short- and medium-term capacity development will be undertaken by the project. Capacity development delivered by the project will be measured against the baseline capacity assessed at the start. Activity 2.4 is embedding Long-term FRM training and CD into relevant government training institutions and programmes. (FS pgs. 249-252. Please also see Chapters 3-7 of FS for a detailed description of all aspects of existing FRM institutional capacity and practice in B&H).



	2.3 Number of people protected through ecosystem-based flood risk reduction measures	Site visit report; Project reports, evaluation reports, independent evaluation report, Mid-term and terminal evaluation reports; IE surveys and reports; site-specific ESPs	0  Institutional and technical capacities for the design and implementation of non-structural and EbA FRM measures are absent or very limited; No EBA FRM measures in place;  Non-structural flood protection measures implemented in Vrbas basin only.  Structural measures design are not climate risk informed.	6,799 <sup>7</sup> people (3,293 men; 3,506 women)  protected from extreme floods through EbA measures in 5 basins (Vrbas, Una-Sana, Bosna, Neretva and Trebisnjica river basins) through	13,598 people (6,586 men; 7,012 women)  protected from extreme floods through EbA measures in 5 basins (Vrbas, Una-Sana, Bosna, Neretva and Trebisnjica river basins) through	<u>Risks/Externalities:</u> Under-performance of the implemented EbA and non-structural measures under extreme events beyond design standards  Method for calculating beneficiaries of the structural and EBA measures to be implemented in the 5 basins is provided in Section 18.9 and 18.10 of the FS. Please see all of Annex E for full socio-economic CBA methodology.
Output 3. Climate-proof flood protection measures scaled-up through new and improved national and local investment frameworks to increase resilience of the most vulnerable groups to climate	3.1. Number of country-wide investment frameworks, new private sector partnerships and/or risk transfer mechanisms for climate induced flood risk reduction and management;	Project reports, evaluation reports, independent evaluation report	Insurance product developed for Vrbas basin but not implemented  No other private sector investment frameworks in place	4 strategies/mechanisms developed  (including 2 Private sector engagement strategies and 1 flood risk financing mechanism developed and FbF mechanism developed);	7 (including 2 Investment frameworks for climate induced floods risk reduction and management;  3 flood risk financing mechanism in place;  2 MoUs with private/productive sector actors)	WA's, Municipalities, and community members are willing and able to implement, municipal investment plans, response plans, climate-resilient structural design and development practices.

<sup>7</sup> Please see sections 18.9 and 18.10 of the FS which provide detailed descriptions of the methodologies used to calculate the benefits of the 21 non-structural and 10 structural measures that will be implemented under the project.

induced flooding.						
	3.2. Number of Multi-year climate resilient municipal investment plans and gender responsive community preparedness plans developed with project support in Municipalities and cantons following investment and preparedness plans completed by project.	Project reports, evaluation reports, independent evaluation report	0  No multi-year climate resilience municipal investment plans and gender responsive community preparedness plan in place	At least 6 Multi-year climate resilient municipal investment plans and gender responsive community preparedness plans (include EAPs for FbF) developed in 5-6 municipalities and 1 canton in Vrbas, Una Sana and Bosna, Drina, Neretva and Trebisnjica river basins	At least 12 Multi-year climate resilient municipal investment plans and gender responsive community preparedness plans ((include EAPs for FbF)) developed in 10-12 municipalities and 1 canton in Vrbas, Una Sana and Bosna, Drina, Neretva and Trebisnjica river basins	WA's have the financial, technical and resourcing capacity to maintain structures
	3.3. Number and effectiveness (nu. of people/ha of land protected) of climate-proof structural flood risk reduction and anti-erosion interventions implemented	Project reports, evaluation reports, independent evaluation report	0	5 climate-proof structural flood risk reduction and anti-erosion interventions implemented in Vrbas, Una-Sana and Bosna, Neretva and Trebisnjica river basins (approx. 16,000 meters total length)  4,459 people (2,220 men; 2,239 women); and 1,154 ha of agricultural land protected from flooding	10 climate-proof structural flood risk reduction and anti-erosion interventions implemented in Vrbas, Una-Sana and Bosna, Neretva and Trebisnjica river basins (approx. 32,131 meters total length)  8,918 people (4,440 men; 4,478 women); and 2,138.7 ha of agricultural land protected from flooding	See Annex A (table 14-3) of the FS for design drawings and details of the 10 structural measures, and Annex E (section 18.10) for the socio-economic assessment and options appraisal of the structural measures.

	in Vrbas, Una-Sana and Bosna, Drina, Neretva and Trebisnjica river basins with the project support				
PROJECT/PROGRAMME CO-BENEFIT INDICATORS:					
Co-benefit	Indicator	Baseline	Mid-term Target	End of Project Target	Assumptions
Co-benefit 1: (Social/Health) Improved health and reduced health risks due to the reduction in the number of floods-related injuries and exposure to water borne diseases.	Number of people with reduced risk of water-borne diseases as a result of the project flood risk reduction intervention	0  59% of the population of B&H currently not connected to sewerage systems and 25% are without access to drinking water, these people are at higher risk of suffering from illness due to water borne disease that arise due to flooding.	235,836 people (120,277 women; 115,560 men)	471,673 people ( 240,553 women; 231,120 men)	<p>Estimation method: Present day population at risk = 799,445;</p> <p>% of population not connected to sewerage = 59%</p> <p>Therefore, number of beneficiaries = 471,673 people</p> <p>The occurrence of major extreme weather or seismic events do not deviate historic trajectory</p> <p>Relevant government agencies cooperate on the implementation of the FFEWS, data management and EbA measures</p> <p>Structural and non-structural measures meet their design standards in reducing the risks to population.</p>
Co-benefit 3: (Gender) Female practitioners trained in all	% of trained practitioners are female; Gender-responsiveness	Limited training in FRM through all institutions.	Minimum of 40% trained practitioners are female; Capacity development plan is gender-responsive; gender-responsive systematized system of collection of vulnerability and modelling vulnerability to floods is fully developed for all basins.	Minimum of 40% trained practitioners are female; Capacity development plan is gender responsive; gender-responsive systematized system	<p>GAAP effectively implemented;</p> <p>Government counterparts are committed to gender responsive FRM</p>

aspects of FRM; gender-responsive risk assessments and FRM framework established	<i>s of CDP; gender-responsiveness of data collection and modeling.</i>	No long-term capacity development plans in place; gender-responsive systematized system of collection of vulnerability and modelling vulnerability to floods is fully developed for Vrbas basin only		of collection of vulnerability and modelling vulnerability to floods is fully developed for all basins.	
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**Modifications to the Project Results Framework:** No modifications to the Project Results Framework shall be allowed, unless the Implementing Partner has sought and obtained prior agreement/approval from UNDP, where pursuant to the terms of the AMA, FAA or GCF policies, UNDP may be required to seek formal prior approval from GCF in relation to proposed modifications to the Funded Activity, in particular where the modifications could reasonably be considered to constitute a Major Change (as defined in the GCF policies). All minor and major modifications shall be duly documented in a Note to File and shall be cleared by UNDP-BPPS in line with UNDP policies and Standard Operating Procedures.

## VII. MONITORING AND EVALUATION (M&E) PLAN

Project-level monitoring and evaluation will be undertaken in compliance with UNDP requirements as outlined in the [UNDP POPP](#) and [UNDP Evaluation](#).

**The UNDP Country Office is responsible for ensuring full compliance with all UNDP project M&E requirements including project monitoring, UNDP quality assurance requirements, quarterly risk management, and evaluation requirements.**

Additional M&E requirements will be undertaken in accordance with the [GCF Integrated Results Management Framework](#), [GCF Evaluation Policy](#), and other relevant [GCF policies](#). The costed M&E plans included below, and the Monitoring Activity Plan in Annex Q, will guide the GCF-specific M&E activities to be undertaken by this project.

In addition to these mandatory UNDP and GCF M&E requirements, other M&E activities deemed necessary to support project-level adaptive management will be agreed during the Project Inception Workshop and will be detailed in the Inception Report.

### **Minimum project monitoring and reporting requirements as required by the GCF:**

#### Inception Workshop and Report:

76. A project inception workshop will be held after the Funded Activity Agreement becomes effective, with the aim to:

- a. Familiarize key stakeholders with the detailed project strategy and discuss any changes that may have taken place in the overall context since the project idea was initially conceptualized that may influence its strategy and implementation.
- b. Discuss the roles and responsibilities of the project team, including reporting lines, stakeholder engagement strategies and conflict resolution mechanisms.
- c. Review the results framework and monitoring plan.
- d. Discuss reporting, monitoring and evaluation roles and responsibilities and finalize the M&E budget; identify national/regional institutes to be involved in project-level M&E; discuss the role of the GCF National Designated Authority and other stakeholders in project-level M&E.
- e. Update and review responsibilities for monitoring project strategies, including the risk register; SESP report, Social and Environmental Management Framework and other safeguard requirements; project grievance mechanisms; gender strategy; knowledge management strategy, and other relevant management strategies.
- f. Review financial reporting procedures and budget monitoring and other mandatory requirements and agree on the arrangements for the annual audit.
- g. Plan and schedule Project Board meetings and finalize the first-year annual work plan.
- h. Formally launch the Project.

**The inception report is to be submitted to GCF within six months of project start** (i.e. Funded Activity Agreement effectiveness)<sup>8</sup>. The inception report will be cleared by the UNDP Country Office and the UNDP-BPPS Regional Technical Adviser and approved by the Project Board.

#### GCF Annual Performance Report (APR) (due for submission to the GCF by 1st March each year of project implementation):

77. The annual GCF APR covering the reporting period January to December will be completed for each year of project implementation. UNDP will undertake quality assurance of the APR before submission to the GCF. The APR process and will follow the standard annotated GCF templates and UNDP guidance prepared by BPPS for GCF-financed projects.

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<sup>8</sup> See Schedule 4 of the Funded Activity Agreement

78. The Project Manager, the UNDP Country Office, and the BPPS Regional Technical Advisor will provide objective input to the APR. The Project Manager will ensure that the indicators included in the project results framework are monitored annually in advance so that progress can be included in the report. The Project Manager and CO must complete a high-quality draft APR and financial file for review and input by the BPPS RTA and for an internal quality assurance and clearance process prior to submission of the APR to the GCF.

79. The UNDP Country Office will coordinate the input of other stakeholders to the APR, as appropriate. The quality rating of the previous year's report will be used to inform the preparation of the subsequent report.

80. The APR submitted to the GCF shall be shared with the Project Board and disclosed publicly on GCF's website.

81. All project documents should have an annex that outlines in detail the project results, tracking and verification system as part of the description of the project's M&E framework.

#### Independent Interim Evaluation Report (IER):

82. An independent interim evaluation report will be submitted to the GCF by 15 January 2028. *This is a legally binding deadline. If it cannot be met because of extraordinary circumstances, a milestone extension request must be sent to and cleared by BPPS/VF Programme Support, Oversight and Compliance Hub and submitted to the GCF Secretariat at least 2 months prior to the submission deadline.*

83. In order to meet the submission deadline, the final IER must be completed and sent to BPPS/VF Programme Support, Oversight and Compliance Hub no later than 2 months in advance of the GCF submission deadline to allow sufficient time for internal review/clearance that is required prior to submission. Therefore, the IER process must start no later than 8 months before the expected date of submission to the GCF.

84. The terms of reference, the review process and the final IER report will follow the standard templates and guidance prepared by UNDP for GCF-financed projects available on the [UNDP Evaluation Resource Center \(ERC\)](#).

85. The evaluation will be independent, impartial and rigorous. The evaluator(s) that UNDP will hire to undertake the assignment will be independent from organizations that were involved in designing, executing or advising on the project to be evaluated. Equally, the evaluators should not be in a position where there may be the possibility of future contracts regarding the project being evaluated.

86. The GCF NDA and other stakeholders will be involved and consulted during the evaluation process. Additional quality assurance support is available from the BPPS RTA and BPPS VF Programme Support, Oversight and Compliance Hub.

87. The final IER will be publicly available in English and will be posted on the UNDP ERC by 15 January 2028. A management response to IER recommendations will be posted in the ERC within six weeks of the IER's completion and submitted to the GCF Secretariat as per the AMA/FAA requirements.

#### Project Completion Report (PCR):

88. The Project Completion Report will cover the project's final calendar year of implementation and will be due for submission to the GCF within 3 months after the project completion date.<sup>9</sup>

89. The Project Manager, the UNDP Country Office, and the BPPS Regional Technical Advisor will provide objective input to the PCR covering the final calendar year of implementation. The Project Manager and CO must complete a

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<sup>9</sup> See Schedule 4 of the Funded Activity Agreement

high-quality draft PCR and financial file for review and input by BPPS RTA and for an internal quality assurance and clearance process prior to submission of the APR to the GCF.

90. The UNDP Country Office will coordinate the input of other stakeholders to the PCR, as appropriate.

#### Independent Final Evaluation Report (FER):

91. An independent final evaluation report (FER) will take place upon completion of all major project outputs and activities and will be submitted to the GCF by 15 April 2031. *This is a legally binding deadline. If it cannot be met because of extraordinary circumstances, a milestone extension request must be sent to and cleared by BPPS/VF Programme Support, Oversight and Compliance Hub and submitted to the GCF Secretariat at least 2 months prior to the submission deadline.*

92. In order to meet the submission deadline, the final version of the FER must be completed and sent to BPPS RTA no later than 2 months in advance of the GCF submission deadline to allow sufficient time for internal review/clearance that is required prior to submission. Therefore, the FER process must start no later than 8 months before the expected date of submission to the GCF.

93. The terms of reference, the evaluation process and the final FER will follow the standard templates and guidance prepared by the UNDP for GCF-financed projects available on the [UNDP Evaluation Resource Center](#).

94. The evaluation will be independent, impartial and rigorous. The evaluator(s) that UNDP will hire to undertake the assignment will be independent from organizations that were involved in designing, executing or advising on the project to be evaluated. Equally, the evaluators should not be in a position where there may be the possibility of future contracts regarding the project being evaluated.

95. The GCF NDA and other stakeholders will be involved and consulted during the final evaluation process. Additional quality assurance support is available from BPPS RTA and VF Programme Support, Oversight and Compliance Hub.

96. The final FER will be publicly available in English and posted on the UNDP ERC by 15 April 2031. A management response to the FER recommendations will be posted to the ERC within six weeks of the FER report's completion and submitted to the GCF Secretariat as per the AMA/FAA requirements.

#### Final Report:

97. The project's Project Completion Report along with the final evaluation report (FER) and corresponding management response will serve as the final project report package. The final project report package shall be discussed with the Project Board during an end-of-project review meeting to discuss lesson learned and opportunities for scaling up.

#### **Monitoring and Evaluations Plans:**

99. In accordance with UNDP's programming policies and procedures, the project will be monitored through the following monitoring and evaluation plans.

#### Monitoring Plan:

99. The project results, corresponding indicators and mid-term and end-of-project targets in the project results framework will be monitored by the Project Management Unit annually and will be reported in the GCF APR every year, and will be evaluated periodically during project implementation. If baseline data for some of the results indicators is not yet available, it will be collected during the first year of project implementation. Project risks, as outlined in the risk register, will be monitored quarterly.

See Annex Q for the detailed Monitoring Activity Table.

GCF Monitoring requirements	Frequency/ Timeframe	Expected Action	Primary responsibility	Partners (if joint)	Indicative costs to be charged to the Project Budget <sup>10</sup> (US\$)
Inception Workshop		As per above description	Implementing Partner Project Manager (PM)/Coordinator/Chief Technical Advisor (CTA)		5,000
Inception Report and baseline assessments	Within six (6) months from the Effective Date	As per above description	PM/Coordinator/CTA		90,000
Risk management (including Quantum Risk Register)	Quarterly	Risks are identified by Project Team and actions are taken to manage risk. The risk register is actively maintained to keep track of identified risks and actions taken	PM/Coordinator/CTA Country Office		None
Monitoring of indicators in project results framework (including hiring of external experts, project surveys, data analysis, data collection for IER and FER, etc.) See Monitoring Activity Table in Annex Q	On-going	Slower than expected progress will be addressed by project management	PM/Coordinator/CTA		These activities have already been included into regular activities of POs, and additionally field monitoring visits
GCF Annual Performance Report	Annually as per FAA	Mandatory contribution by Project Team, CO and BPPS RTA. Strengths and weaknesses to be reviewed by project management and used to inform decisions to improve	RTA UNDP Country Office <sup>11</sup> PM/Coordinator/ CTA		None

<sup>10</sup> Excluding project team staff time and UNDP staff time and travel expenses.

<sup>11</sup> Or equivalent for regional or global project



GCF Monitoring requirements	Frequency/ Timeframe	Expected Action	Primary responsibility	Partners (if joint)	Indicative costs to be charged to the Project Budget <sup>10</sup> (US\$)
		project performance			
Audit of Implementing Partner as per UNDP audit policies	As per UNDP Audit policies		UNDP Country Office		None
Lessons learned, case studies, and knowledge generation	On-going	Relevant lessons are captured by project management and used to inform management decisions, raise awareness, etc.	Project Manager		None
Monitoring of environmental and social risks and corresponding management plans and, addressing	On-going		Project Safeguards Officer		125,000
Monitoring of gender action plan	On-going		Project Gender Officer		87,640
Monitoring of stakeholder engagement plan	On-going		Project Stakeholder Engagement Officer		82,640
Addressing environmental and social grievances	Costs associated with missions, workshops, UNDP-BPPS expertise etc. can be charged to the project budget.		Project Manager UNDP Country Office UNDP-BPPS as needed		None
Project Board meetings	At minimum annually		Project Board UNDP Country Office PM		None
Supervision missions	Two per year		UNDP Country Office		None <sup>12</sup>
Oversight missions	Troubleshooting as needed		RTA UNDP BPPS		None <sup>13</sup>
GCF learning missions/site visits	To be determined.		UNDP Country Office and Project Manager and UNDP BPPS		None
Oversight of IE process and IE management response	As per IER schedule		UNDP Country Office and UNDP BPPS		None
Project Completion Report	Within three (3) months from the Completion Date	Mandatory contribution by Project Team, CO	RTA UNDP Country Office <sup>14</sup> PM/Coordinator/ CTA		None

<sup>12</sup> The costs of UNDP Country Office and BPPS's participation and time are charged to the GCF Agency Fee.

<sup>13</sup> The costs of UNDP Country Office and BPPS participation and time are charged to the GCF Agency Fee.

<sup>14</sup> Or equivalent for regional or global project

GCF Monitoring requirements	Frequency/ Timeframe	Expected Action	Primary responsibility	Partners (if joint)	Indicative costs to be charged to the Project Budget <sup>10</sup> (US\$)
		and BPPS RTA. Strengths and weaknesses to be reviewed by project management and used to inform decisions to improve project performance			
Translation of evaluation reports into English	As required. GCF will only accept reports in English.		UNDP Country Office		None
Oversight of FE process and FE management response	As per FER schedule		UNDP		NoneError! B ookmark not defined.
TOTAL indicative COST Including project team staff time, and UNDP staff and travel expenses					390,280 1-2% of Total GCF grant NOT TOTAL budget

### Evaluation Plan

GCF Evaluation Requirements	Partners (if joint)	Related Strategic Plan Output	UNSDCF/CPD Outcome	Submission Date to GCF	Key Evaluation Stakeholders	Cost and Source of Funding
Independent Interim Evaluation	-	Plan: 1.1 The 2030 Agenda, Paris Agreement and other intergovernmentally- agreed frameworks integrated in national and local development plans, measures to accelerate progress put in place, and budgets and progress assessed using data-driven solutions ; 3.1 Institutional systems to manage multi- dimensional risks and shocks strengthened at	Outcome 1	By the IER submission date on cover page of this project document	UNDP, Ministry of Foreign Trade and Economic Relations of Bosnia and Herzegovina (MOFTER, GCF Focal Point), The Ministry for Spatial Planning, Civil Engineering and Ecology (MSPCEE, UNFCCC focal point), Ministry of Agriculture, Water Management,	USD 18,000  Charged to Fee budget

		regional, national and sub-national levels;			and Forestry of Federation of B&H and Ministry of Agriculture, Forestry, and Water Resources of Republika Srpska	
Independent Final Evaluation	-	Plan: 1.1 The 2030 Agenda, Paris Agreement and other intergovernmentally-agreed frameworks integrated in national and local development plans, measures to accelerate progress put in place, and budgets and progress assessed using data-driven solutions ; 3.1 Institutional systems to manage multi-dimensional risks and shocks strengthened at regional, national and sub-national levels;	Outcome 1	By the FER submission date on cover page of this project document	UNDP, Ministry of Foreign Trade and Economic Relations of Bosnia and Herzegovina (MOFTER, GCF Focal Point), The Ministry for Spatial Planning, Civil Engineering and Ecology (MSPCEE, UNFCCC focal point), Ministry of Agriculture, Water Management, and Forestry of Federation of B&H and Ministry of Agriculture, Forestry, and Water Resources of Republika Srpska	USD 24,000  Charged to Fee budget
<b>TOTAL indicative COST</b>						USD 42,000 1-2% of Total GCF grant NOT TOTAL budget

## VIII. GOVERNANCE AND MANAGEMENT ARRANGEMENTS

### Section 1: General roles and responsibilities in the projects' governance mechanism

As described under Section V Project Management, the project will be implemented following UNDP's Direct Implementation Modality (DIM), which is the modality whereby UNDP takes on the role of Implementing Partner. This role is reflected in the [Standard Basic Assistance Agreement \(SBAA\)](#) between the Government of Bosnia and Herzegovina and UNDP, signed on 07 December 1995, the Country Programme Document (CPD), and policies and procedures outlined in the UNDP POPP (see <https://info.undp.org/global/popp/ppm/Pages/Defining-a-Project.aspx>).

#### Implementing Partner:

100. The Implementing Partner for this project is UNDP Bosnia and Herzegovina. The Implementing Partner is the entity to which the UNDP Administrator has entrusted the implementation of UNDP assistance specified in this signed project document along with the assumption of full responsibility and accountability for the effective use of UNDP resources and the delivery of outputs, as set forth in this document.

101. The Implementing Partner is responsible for executing this project. Specific tasks include:

- Project planning, coordination, management, monitoring, evaluation and reporting. This includes providing all required information and data necessary for timely, comprehensive and evidence-based project reporting, including results and financial data, as necessary. The Implementing Partner will strive to ensure project-level M&E is undertaken by national institutes and is aligned with national systems so that the data used and generated by the project supports national systems.
- Overseeing the management of project risks as included in this project document and new risks that may emerge during project implementation.
- Procurement of goods and services, including human resources.
- Financial management, including overseeing financial expenditures against project budgets.
- Approving and signing the multiyear workplan.
- Approving and signing the combined delivery report at the end of the year; and,
- Signing the financial report or the funding authorization and certificate of expenditures.

#### Responsible Parties:

102. UNDP, as the Implementing Partner, will not implement the project with the support of Responsible Parties. However, the implementation of the project will be carried out in collaboration with the following Government agencies and institutions:

- Ministry of Foreign Trades and economic Relations (GCF Focal Point);
- Ministry of Agriculture, Forestry and Water management of Republika Srpska;
- Federal Ministry of Agriculture, Water management and Forestry;
- Ministry of Spatial Planning, Construction and Ecology of Republika Srpska;
- Sava River Watershed Agency;
- Agency for watershed of the Adriatic sea;
- Water Agency – Public institution "Vode Srpske";
- Federal Hydrometeorological Institute;
- Republic Hydrometeorological Institute of Republika Srpska; and
- Hydropower plant on Trebišnjica river – HET.

#### Project stakeholders and target groups:

103. Local stakeholders and community members have a key role in the implementation and monitoring of the project. Local community consultations have been conducted during the project preparation phase (see Stakeholder

Assessment and Engagement Plan). During the inception phase of the project, the project will additionally consult with all stakeholders, including vulnerable community members and local government, etc. and facilitate an understanding of the roles, functions, and responsibilities within the Project's decision-making structures, including reporting and communication lines, and conflict resolution mechanisms. Local community consultation forums will be established at community levels to maintain dialogue with the local beneficiaries and stakeholders throughout the project implementation. The stakeholders will also be engaged during the mid-term and final evaluations to assess the progress of the project and enable adaptive project management in response to the needs and priorities of the communities. Community forums will be coordinated and managed through the partnerships with the Society of Red Cross (RC) B&H and its members - Red Cross of RS, FB&H and Brcko district (see footnote 39 above), Association of Cities and Municipalities (for all cities and all 143 municipalities in B&H), Civil Protection (CP) and a network of volunteer groups<sup>15</sup> and existing civil society partners who provide flood risk management, preparedness and response services to municipalities. These partnerships will support the implementation of the community activities and interventions of the project. As a minimum, bi-annual community forums will be organised in each entity, with more frequent meetings/forums as needed. Project stakeholders will be represented within the Project Board, as described in the Section 2 and Section 3.

#### UNDP:

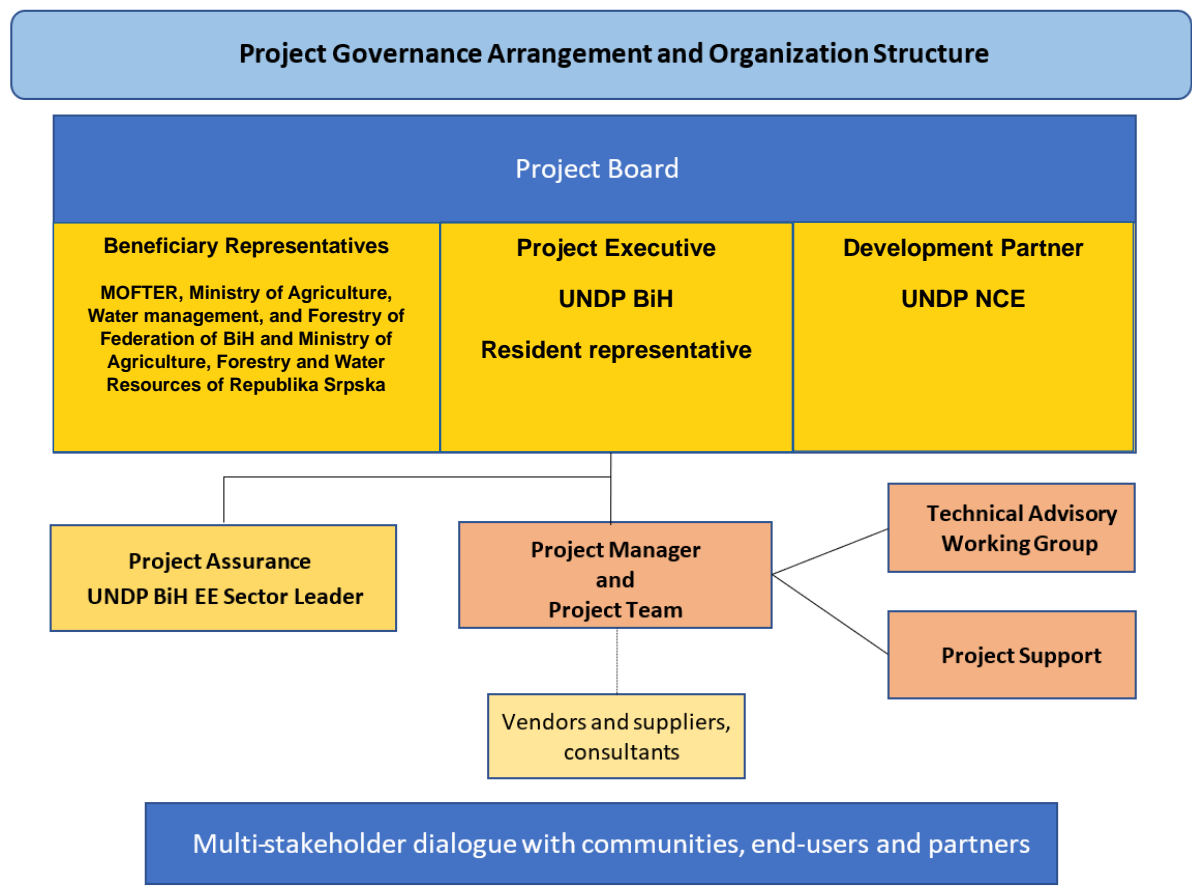
104. UNDP is accountable to the GCF for the implementation of this project. This includes overseeing project execution undertaken by the Implementing Partner to ensure that the project is being carried out in accordance with UNDP and GCF policies and procedures and the standards and provisions outlined in the Delegation of Authority (DOA) letter for this project. **The UNDP BPPS Executive Coordinator, in consultation with UNDP Regional Bureaus and the Implementing Partner, retains the right to revoke the project DOA, suspend or cancel this GCF project.** UNDP is responsible for the Project Assurance function in the project governance structure and presents to the Project Board and attends Project Board meetings as a non-voting member.

105. A strict firewall will be maintained between the delivery of project oversight and quality assurance performed by UNDP and project execution undertaken by UNDP. The segregation of functions and firewall provisions within UNDP in this case is described in the next section.

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<sup>15</sup> Both, CP and RC in critical situations engage volunteers from local communities. They have updated lists with contacts of volunteers, regularly updated and organize trainings and education for them. In addition they contract specialized volunteer groups (such as mountaineering, rafting clubs), specifically for protection and rescue.

Section 2: Project governance structure



106. The UNDP Resident Representative assumes full responsibility and accountability for oversight and quality assurance of this Project and ensures its timely implementation in compliance with the GCF-specific requirements and UNDP’s Programme and Operations Policies and Procedures (POPP), its Financial Regulations and Rules and Internal Control Framework. A representative of the UNDP Country Office will assume the assurance role and will present assurance findings to the Project Board, and therefore attends Project Board meetings as a non-voting member.

Section 3: Segregation of duties and firewalls vis-à-vis UNDP representation on the Project Board:

107. UNDP’s implementation oversight role in the project – as represented in the Project Board and via the project assurance function – is performed by the UNDP Resident Representative and UNDP Energy and Environment Sector Leader. UNDP’s execution role in the project is performed by **UNDP CO Operations and Project team** who will report to **UNDP Deputy Resident Representative**.

Section 4: Roles and Responsibilities of the Project Organization Structure:

- a) **Project Board:** All UNDP projects must be governed by a multi-stakeholder board or committee established to review performance based on monitoring and evaluation, and implementation issues to ensure quality delivery of results. The Project Board (also called the Project Steering Committee) is the most senior, dedicated oversight body for a project.

The two prominent (mandatory) roles of the Project Board are as follows:

- 1) **High-level oversight of the execution of the project by the Implementing Partner** (as explained in the [“Provide Oversight”](#) section of the POPP). This is the primary function of the Project Board and includes annual (and as-needed) assessments of any major risks to the project, and decisions/agreements on any management actions or remedial measures to address them effectively. The Project Board reviews evidence of project performance based on monitoring, evaluation and reporting, including progress reports, evaluations, risk register and the combined delivery report. The Project Board is the main body responsible for taking corrective action as needed to ensure the project achieves the desired results.
- 2) **Approval of strategic project execution decisions of the Implementing Partner** with a view to assess and manage risks, monitor and ensure the overall achievement of projected results and impacts and ensure long term sustainability of project execution decisions of the Implementing Partner (as explained in the [“Manage Change”](#) section of the POPP).

#### **Requirements to serve on the Project Board:**

- ✓ Agree to the Terms of Reference of the Board and the rules on protocols, quorum and minuting.
- ✓ Meet annually; at least once.
- ✓ Disclose any conflict of interest in performing the functions of a Project Board member (if not avoidable) and take all measures to avoid any real or perceived conflicts of interest. This disclosure must be documented and kept on record by UNDP.
- ✓ Discharge the functions of the Project Board in accordance with UNDP policies and procedures.
- ✓ Ensure highest levels of transparency and ensure Project Board meeting minutes are recorded and shared with project stakeholders.

#### **Responsibilities of the Project Board:**

- ✓ Consensus decision making:
  - The Project Board provides overall guidance and direction to the project, ensuring it remains within any specified constraints, and provides overall oversight of the project implementation.
  - Review project performance based on monitoring, evaluation and reporting, including progress reports, risk register and the combined delivery report;
  - The Project Board is responsible for making management decisions by consensus.
  - In order to ensure UNDP’s ultimate accountability, Project Board decisions should be made in accordance with standards that shall ensure management for development results, best value money, fairness, integrity, transparency and effective international competition.
  - In case consensus cannot be reached within the Board, the UNDP representative on the board will mediate to find consensus and, if this cannot be found, will take the final decision to ensure project implementation is not unduly delayed.
- ✓ Oversee project execution:
  - Agree on project manager’s tolerances as required, within the parameters outlined in the project document, and provide direction and advice for exceptional situations when the project manager’s tolerances are exceeded.
  - Appraise annual work plans prepared by the Implementing Partner for the Project; review combined delivery reports prior to certification by the implementing partner.
  - Address any high-level project issues as raised by the project manager and project assurance;
  - Advise on major and minor amendments to the project within the parameters set by UNDP and the donor and refer such proposed major and minor amendments to the UNDP BPPS/VF Executive Coordinator (and the GCF Secretariat and/or GCF Board, as required by GCF policies);
  - Provide high-level direction and recommendations to the project management unit to ensure that the agreed deliverables are produced satisfactorily and according to plans.
  - Track and monitor co-financed activities and realisation of co-financing amounts of this project.
  - Approve the Inception Report, Baseline Report, GCF APRs, Interim Independent Evaluation and terminal evaluation reports, other reports that GCF may require.
  - Ensure commitment of human resources to support project implementation, arbitrating any issues within the project.

- ✓ Risk Management:
  - Provide guidance on evolving or materialized project risks and agree on possible mitigation and management actions to address specific risks.
  - Review and update the project risk register and associated management plans based on the information prepared by the Implementing Partner. This includes risks related that can be directly managed by this project, as well as contextual risks that may affect project delivery or continued UNDP compliance and reputation but are outside of the control of the project. For example, social and environmental risks associated with co-financed activities or activities taking place in the project's area of influence that have implications for the project.
  - Address project-level grievances.
- ✓ Coordination:
  - Ensure coordination between various donor and government-funded projects and programmes.
  - Ensure coordination with various government agencies and their participation in project activities.

**Composition of the Project Board:** The composition of the Project Board must include individuals assigned to the following three roles:

- 1) **Project Executive:** This is an individual who represents ownership of the project and chairs (or co-chairs) the Project Board. The Executive usually is the senior national counterpart for nationally implemented projects (typically from the same entity as the Implementing Partner), and it must be UNDP for projects that are direct implementation (DIM). In exceptional cases, two individuals from different entities can co-share this role and/or co-chair the Project Board. If the project executive co-chairs the Project Board with representatives of another category, it typically does so with a development partner representative. The Project Executive is: **UNDP Resident Representative.**
  - 22) **Beneficiary Representative(s):** Individuals or groups representing the interests of those groups of stakeholders who will ultimately benefit from the project. Their primary function within the board is to ensure the realization of project results from the perspective of project beneficiaries. Often representatives from civil society, industry associations, or other government entities benefiting from the project can fulfil this role. There can be multiple beneficiary representatives on a Project Board. The Beneficiary representatives are designated representatives of the Ministry of Foreign Trade and Economic Relations of Bosnia and Herzegovina (MOFTER, GCF Focal Point), Ministry of Agriculture, Water Management, and Forestry of Federation of B&H and Ministry of Agriculture, Forestry, and Water Resources of Republika Srpska.
  - 2) **Development Partner(s):** Individuals or groups representing the interests of the parties concerned that provide funding, strategic guidance and/or technical expertise to the project. The Development Partner(s) is: UNDP.
- b) **Project Assurance:** Project assurance is the responsibility of each Project Board member; however, UNDP has a distinct assurance role for all UNDP projects in carrying out objective and independent project oversight and monitoring functions. UNDP performs quality assurance and supports the Project Board (and Project Management Unit) by carrying out objective and independent project oversight and monitoring functions, including applying and ensuring compliance with UNDP's risk management and social and environmental management systems to ensure the SES are applied through the project cycle. The Project Board cannot delegate any of its quality assurance responsibilities to the Project Manager. Project assurance is totally independent of project execution.

A designated representative of UNDP playing the project assurance role is expected to attend all board meetings and support board processes as a non-voting representative. It should be noted that while in certain cases UNDP's project assurance role across the project may encompass activities happening at several levels (e.g. global, regional), at least one UNDP representative playing that function must, as part of their duties, specifically attend board meeting and provide board members with the required documentation required to perform their duties. The UNDP representative playing the main project assurance function is Energy and Environment Sector Leader.



- c) **Project Management – Execution of the Project:** The Project Manager (PM) (also called project coordinator) is the senior most representative of the Project Management Unit (PMU) and is responsible for the overall day-to-day management of the project on behalf of the Implementing Partner, including the mobilization of all project inputs, supervision over project staff, responsible parties, consultants and sub-contractors. The project manager typically presents key deliverables and documents to the board for review and approval, including progress reports, annual work plans, adjustments to tolerance levels and risk registers.

A designated representative of the PMU is expected to attend all board meetings and support board processes as a non-voting representative.

The primary PMU representative attending board meetings is the Project Manager, to be hired.

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## IX. FINANCIAL PLANNING AND MANAGEMENT

108. The total cost of the project is USD 72,688,889. This is financed through a GCF grant of USD 14,400,000, USD 800,000 in cash co-financing to be administered by UNDP and USD 57,488,889 in other co-financing not administered by UNDP. UNDP is responsible for the oversight of implementation of the Funded Activity, including those activities and outcomes supported by GCF resources and through co-financing.

### Co-finance disbursement monitoring:

109. The actual realization (materialization) of project co-financing will be monitored and reported (i) in each Annual Performance Report (APR), (ii) in the Interim Evaluation, (iii) in the Terminal Evaluation, (iv) in the Project Completion Report, (v) as a condition precedent for all requests for disbursement, within the timeframe to ensure timely requests for disbursements and in form and substance satisfactory to the GCF, and (vi) upon the request of GCF. Signed letters from co-financiers will be requested for (i) and (v) to confirm the amounts that have materialized for the respective calendar year or implementation year.

110. Co-financing will be used for the following project outputs:

Ministry of Agriculture, Forestry and Water Management of Republika Srpska (MAFWM RS)- EiB Loan	USD 21,110,000
Ministry of Agriculture, Forestry and Water Management of Republika Srpska (MAFWM RS)	USD 3,890,000
Ministry of Foreign Trade and Economic Relations (GCF Focal point) (MOFTER)	USD 5,555,556
Ministry of Spatial Planning, Civil Engineering and Ecology of Republika Srpska (UNFCCC Focal point) (MSPCEE)	USD 300,000
Water Agency for Sava River Basin, Sarajevo (WA Sava)	USD 16,000,000
Water Agency for Adriatic River Basin, Mostar (WA AB)	USD 5,000,000
Power Company of Republika Srpska, Hydro Power Plant (HPP)	USD 5,000,000
Re-insurance company Bosna RE (Bosna RE)	USD 333,333
Association of Insurance Companies FB&H (AOIC)	USD 300,000
<b>Total confirmed co-financing that is not administered by UNDP</b>	<b>USD 57,488,889</b>

GCF Disbursement schedule:

111. GCF grant funds will be disbursed by GCF upon submission of the Request for Disbursement (RfD) to GCF according to the indicative disbursement schedule (submitted to GCF as a condition for FAA effectiveness) and upon meeting all conditions precedent to disbursement. The Country Office will submit an annual work plan to the UNDP BPPS/VF Programme Support, Oversight and Compliance Hub and comply with the GCF milestones in order for the next tranche of project funds to be released. All efforts must be made to achieve 80% delivery annually to accomplish the expected outputs/activities in a timely manner, within the planned duration to avoid extension of the project.

Disbursements	GCF Proceeds (in USD)	Indicative Disbursement Schedule
Disbursement 1	1,671,594	November 2024
Disbursement 2	3,769,041	November 2025
Disbursement 3	4,594,148	November 2026
Disbursement 4	2,634,117	November 2027
Disbursement 5	1,236,926	November 2028
Disbursement 6	494,174	November 2029
<b>TOTAL</b>	<b>14,400,000</b>	

Conditions Precedent for Disbursement:

112. The Government/Implementing Partner is aware of the conditions and covenants of disbursement ascribed to the first and subsequent tranches of the GCF funding, as further set out below. To the extent that these obligations reflect actions of the Government, the Government must ensure that the conditions are met and there is continuing compliance, as well as understanding that availability of GCF funding is contingent on meeting all conditions listed. The UNDP-BPPS unit will conduct a compliance review the FAA conditions precedent and covenants to disbursement as a part of the internal clearance procedures for submitting request for disbursements to the GCF.

113. The obligation of the Fund to make any Disbursements under this Agreement shall be subject to the following conditions having been fulfilled to the satisfaction, in form and substance, of the Fund:

(a) General conditions for all Disbursements:

- 23) Other than in relation to the first Disbursement, submission to the Fund by the Accredited Entity of evidence that at least seventy per cent (70%) of the funds previously disbursed by the Fund have been spent on Eligible Expenditures;
- 24) Other than in relation to the first Disbursement, submission to the Fund by the Accredited Entity of APRs and Financial Information in accordance with the AMA and this Agreement;
- 25) Delivery to the Fund by the Accredited Entity of a Request for Disbursement, in a form and substance satisfactory to the Fund, signed by the person or persons authorized to do so, within thirty (30) calendar days prior to the date on which the Disbursement is requested to be made, which shall not be later than the Closing Date;
- 26) Delivery to the Fund by the Accredited Entity of evidence, satisfactory to the Fund, indicating the status and the amount of the Co-financing funds disbursed and applied to the implementation of the Funded Activity up to the date of the request for funds made by the Accredited Entity; and
- 27) Confirmation to the Fund by the Accredited Entity that there is no event of default occurring with respect to this Agreement.

(b) Conditions precedent to first Disbursement:

- i. Effectiveness of this Agreement;
- ii. Delivery to the Fund by the Accredited Entity of an executed copy of the Project Document, in accordance with the AMA;
- iii. Delivery to the Fund by the Accredited Entity of evidence, satisfactory to the Fund, of the authority of the person or persons authorized to sign each Request for Disbursement (with respect to the GCF Proceeds and the Accredited Entity Fees) under this Agreement, and the authenticated specimen signature of each such person; and
- iv. Delivery to the Fund by the Accredited entity of a summary report of stakeholder consultations conducted pursuant to the covenant set forth in Clause 10.02(n), including recommendations for project design and implementation modalities;

(c) Conditions precedent to second Disbursement:

- d) Delivery to the Fund of a sustainability plan developed in close consultation with relevant entities and local
- e) government institutions, specifying their respective roles in project implementation, including policy
- f) mainstreaming and the operationalizing and sustaining of the flood forecasting and early warning systems;

(d) Conditions precedent to third Disbursement

- g) Delivery to the Fund of an updated organization structure for the project for implementation of the
- h) sustainability plan.

114. If within ninety (90) calendar days from the Effective Date, or such longer period established by the Fund in writing, the Accredited Entity has not requested the first Disbursement or the conditions precedent for the first Disbursement established in Clause 9.01 have not been fulfilled, the Fund may terminate this Agreement by giving notice to the Accredited Entity.

115. If at the Closing Date, the Accredited Entity has not requested the Disbursement of the full amount of the GCF Proceeds with at least thirty (30) calendar days prior to such date, or the Fund has not otherwise disbursed the full amount of the GCF Proceeds, the undisbursed portion of the GCF Proceeds shall automatically be cancelled and no longer available for Disbursement.

116. In addition to clause 18.01 of the AMA, the Accredited Entity represents and warrants that:

(a) On the date of the execution of this Agreement and the date of each Disbursement made by the Fund under this Agreement, there are no circumstances of which the Accredited Entity is aware, including through its oversight of the Funded Activity as per the obligations of this FAA, the AMA and UNDP's own policies and practices, that may substantially interfere with the performance of its obligations under this Agreement, the AMA or with the implementation of the Funded Activity, or otherwise jeopardize the achievements of any objectives, outcomes or outputs of the Funded Activity.

(b) On the date of the first Disbursement by the Fund under this Agreement and throughout the term of this Agreement, the Project Document remains in effect;

(c) On the date of each Disbursement by the Fund under this Agreement, no Event of Default has occurred and is continuing under this Agreement;

(d) On the date of execution and the Effective Date of this Agreement and the date of each Disbursement made by the Fund under this Agreement, the policies of the Accredited Entity addressing AML/CFT are substantially consistent with the principles of the AML/CFT Policy;

(e) On the date of execution of this Agreement, the Effective Date and on the date of each Disbursement made by the Fund under this Agreement, the Accredited Entity has carried out all due diligence as necessary

to ensure that the Funded Activity is at all times in compliance with its own gender policy, which is equivalent to the Updated Gender Policy.

117. In addition to clause 18.02 of the AMA, the Accredited Entity covenants that as from the Effective Date of this Agreement it shall:

***Co-Financing related covenants***

(a) Confirm to the Fund, in the APRs to be submitted to the Fund, that the Co-financiers have allocated in their annual budget the relevant Co-financing resources for the implementation of the Project to the satisfaction of the Accredited Entity;

(b) Inform the Fund, in the APRs to be submitted in accordance with the AMA, on the status of the Co-financing funds that have been disbursed and applied to the implementation of the Project Activities;

(c) Ensure that the Co-financing provided by the Accredited Entity for the execution of the Funded Activity is contributed by the Accredited Entity in a timely manner;

(d) Take appropriate measures to ensure that the Co-financing and the GCF Proceeds are disbursed and/or applied proportionally and simultaneously for the implementation of the Funded Activity in accordance with the timelines and amount set out in the total Budget;

***ESS-related covenants***

(e) Ensure that the infrastructure to be implemented as part of the Funded Activity (i) are designed, constructed, operated and decommissioned in accordance with good industry practices and any other applicable standards which, in each case, shall be consistent with the practices of other international organizations working in the region, and taking into consideration health and safety risks to third parties or affected communities; and (ii) the quality of such infrastructure is in accordance with best practices followed by international organizations in the region;

(f) Undertake and/or put in place any adequate measures in order to ensure that the management of the environmental and social risks and impacts arising from the Funded Activity complies at all times with the recommendations, requirements and procedures set forth in the Environmental and Social Assessment Report ("ESAR") and Environmental and Social Management Framework ("ESMF") which was provided by the Accredited Entity to the Fund before the Approval Decision and which shall not be amended, abrogated or waived without prior written approval of the Fund. This includes putting in place measures, including with respect to the Accredited Entity's grievance redress mechanisms, to prevent and respond to the conducts described in clause 18.02(k) of the AMA, for adherence to the relevant principles and requirements included in the ESAR and ESMF;

(g) Ensure that the GCF Proceeds will not support or finance, directly or indirectly, any activities with potential environmental and social risks that are equivalent to category A pursuant to the Environmental and Social Risks Categories to be conducted as part of the Project;

(h) Acquire all necessary environmental licenses or clearances, and shall promptly furnish evidence, in a form and substance satisfactory to the Fund and upon its request, that such licenses or clearances, are available for the purposes of the Project;

(i) Prior to commencing any construction works under Activity 2.2 and Activity 3.3 as specified in the project's ESAR/ESMF, the Accredited Entity shall submit to the Fund the detailed site-specific assessments and management plans (that may involve Environmental and Social Impact Assessment ("ESIA") and Environmental and Social Management Plan ("ESMP")), relating to the relevant construction works or activities to be executed, in a form and substance satisfactory to the Fund;

(j) In relation to each Sub-Project under Activity 2.2 that is Category B (pursuant to the Environmental and Social Risk Categories), disclose the ESIA and ESMP and, as appropriate, and any other associated information required to be disclosed pursuant to the relevant policies of the Accredited Entity and to the requirements set out in Schedule 8 in such a manner so as to meet, in accordance with clause 13.01, clause 15.01(e), clause 25.05 and clause 25.08 of the AMA, the requirements of the Information Disclosure Policy and the Environmental and Social Policy (each, the "**Sub-Project Disclosure Package**");

(k) Undertake and/or put in place all adequate measures and dedicate the necessary financial, human and other resources in order to ensure that the Funded Activity complies at all times with the recommendations and requirements of the Gender Action Plan (“**GAP**”), provided by the Accredited Entity to the Fund as part of the Funding Proposal, which shall comply with the Accredited Entity’s own gender policy, which is equivalent to the GCF’s Updated Gender Policy, and the GAP shall not be amended, abrogated or waived without prior written approval of the Fund;

(l) Obtain any required land use rights and/or permissions in respect of land that are required to carry out the Funded Activity and shall promptly furnish to the Fund, upon its request, evidence that such land, rights and/or permissions in respect of the land are available for the purposes of the Funded Activity;

***ITAP conditions-related covenants***

(m) Prior to the first Disbursement, conduct local stakeholder consultations across the entire project area, including in each of the target river basins regarding project design. The local consultations shall be conducted with a view towards: (i) how flood risk reduction measures and nature-based solutions are to be mainstreamed into sectoral policies and plans of the Host Country; and (ii) how the flood forecasting and early warning systems shall be operationalised and sustained;

(n) Prior to the submission to the Fund of a summary report of stakeholder consultations referred to in Clause 9.01(b)(iv), deliver to the Fund a copy of such summary report for the review and approval by the Fund;

(o) Deliver to the Fund a copy of the sustainability plan, as referred to in Clause 9.01(c)(i), endorsed by the relevant institutions in the Host Country for the review and approval of the Fund;

(p) Deliver to the GCF Secretariat a detailed project organization structure as referred to in Clause 9.01(d)(i), with equipment property rights assigned or handed over to the various institutions in the Host Country

***Project-specific covenants***

(q) In case any amendment or modification is entered to or otherwise agreed by the Accredited Entity with respect to the Project Document, inform of such event and furnish to the Fund the executed copies of such amendment or modification within ten (10) days from its execution. For the avoidance of doubt, the Accredited Entity shall ensure that such amendment or modification does not contravene the terms and conditions provided in this Agreement and the AMA;

(r) Apply, in accordance with its own policies and procedures, its own fiduciary principles and standards relating to AML/CFT in the implementation of the Funded Activity;

(s) In case of a change of the authorized representative to sign the Request for Disbursement, provide, together with the Request for Disbursement, evidence, satisfactory to the Fund, of the authority of such person to sign the Request for Disbursement and the relevant authenticated specimen signature of such person;

(t) Ensure that the beneficiaries identified in section B.3 of the Funding Proposal are selected in accordance with the Eligibility Criteria set out in Schedule 7;

(u) In case of any material amendment to the Eligibility Criteria set out in Schedule 7, immediately inform the Fund and seek the Fund’s prior approval of such amendment or modification; and

(v) Pursuant to clause 23.04 of the AMA, the Accredited Entity shall inform the GCF Secretariat in the final APR and consult with the GCF Secretariat on the steps to be taken in relation to the durable assets and/or equipment purchased with the GCF Proceeds to implement the Funded Activity, provided that nothing herein shall in any way be construed to limit the rights of UNDP to take such steps as it reasonably deems in the best interest of the continued operation of the Funded Activity taking into consideration the objectives of the GCF and the terms of the applicable SBAA, and in accordance with its policies and procedures.

**Budget Revision and Tolerance:**

118. Any reallocation of the GCF grant among the outputs that result in a variation of more than 10% of the GCF agreed budget for that output must be approved by the GCF in advance.

119. Any increase in the amount allocated to project management costs must be communicated by the Accredited Entity to the Fund and approved in writing by the Fund in advance.

120. Any budget reallocation involving a major change in the project's scope, structure, design, or objectives or any other change that substantially alters the purpose or benefit of the project requires UNDP BPPS internal review/clearance and the GCF's prior written consent. All minor and major changes shall be duly documented in a Note to File and submitted to BPPS for prior to their implementation.

121. As per UNDP requirements outlined in the UNDP POPP, the Project Board will agree on a budget tolerance level for each plan under the overall annual work plan allowing the project manager to expend up to the tolerance level beyond the approved project budget amount for the year without requiring a revision from the Project Board (within the GCF requirements noted above). Should such deviation occur, the Project Manager and UNDP Country office will seek the approval of the UNDP-BPPS team.

122. UNDP is not in a position to increase the total budget above the amount approved by the donor, therefore any over-expenditure would have to be absorbed from non-GCF resources by the Implementing Partner (GCF Executing Entity).

#### Project Specific Conditions:

123. The Implementing Partner hereby expressly agrees, and shall ensure that each of its responsible parties, their respective sub-recipients and other entities involved in Project Implementation, either as contractors or subcontractors and any individuals performing services for them under the Project Document agrees, to comply with the Project Specific Conditions, Representation, Warranties and Covenants, in each case as set out in Annex A of this Project Document. Non-compliance with these Project Specific Conditions, Representations, Warranties and Covenants shall be deemed to constitute a breach by the Implementing Partner of its obligations under this Project Document.

#### Project extensions:

124. Any project milestones with deadlines indicated in the signed FAA (including GCF closing date and completion date) **cannot be extended unless through a formal extension request submitted and approved by the GCF** as per the [GCF policy on cancellation and restructuring](#). The UNDP-BPPS Executive Coordinator must approve all requests for extension of the Project Completion & Closing Date and other milestone extensions with hard deadlines, before they are submitted to the GCF. All extensions impose additional time and cost burdens at all levels and the GCF project budget cannot be increased beyond its originally approved amount. Extensions are unfunded by the GCF and UNDP. A single extension may be granted **on an exceptional basis** and subject to the conditions and maximum durations set out in the UNDP POPP. The project management costs during the extension period must remain within the originally approved amount, and any increase in PMC costs shall be covered by non-GCF resources; the additional UNDP oversight costs during the extension period must be covered by non-GCF resources, in accordance UNDP's policy as set out in UNDP POPP.

125. For any extension request, UNDP CO and IP will consult and jointly present a clear plan indicating how and from which specific sources the additional oversight costs that will be incurred by UNDP will be covered during the extended period. The BPPS Executive Coordinator shall consult the Regional Bureaux (RBX) and may reject the extension request if no external (non-GCF) financing by the IP or internal UNDP CO resources for the additional oversight cost of UNDP can be identified.

126. All extension requests, along with all supporting documentation, shall be submitted by the IP to the UNDP CO in line with the requirements and within the deadlines set out in the UNDP SOPs and policies in UNDP POPP.

**Audit:**

127. The project will be audited as per UNDP Financial Regulations and Rules and applicable audit policies. Audit cycle and process must be discussed during the Inception workshop. If the Implementing Partner is an UN Agency, the project will be audited according to that Agencies applicable audit policies-

**Transfer or disposal of assets:**

128. In consultation with the NIM Implementing Partner and other parties of the project, UNDP is responsible for deciding on the transfer or other disposal of assets. Transfer or disposal of assets is recommended to be reviewed and endorsed by the Project Board following UNDP rules and regulations. Assets may be transferred to the government for project activities managed by a national institution at any time during the life of a project, however it **must be done before the operational closure date**. In all cases of transfer, a transfer document must be prepared and kept on file<sup>16</sup>. The transfer should be done before Project management Unit complete their assignments.

129. In addition, the following GCF requirements must be followed: As stated in the Funding Activity Agreement (refer to the Annex for the relevant FAA clauses), the Accredited Entity shall inform the GCF, in the final Annual Progress Report (APR), which steps it intends to take in relation to the durable assets and/or equipment purchased with the GCF Proceeds to implement the Funded Activity.

**Closing Date (GCF term):**

130. The closing date is defined in the signed FAA to be the date which is six [6] years after the Effective Date (or such later date as the Fund shall establish by notice to the Accredited Entity), on which the Accredited Entity's right to receive GCF Proceeds to the GCF Account in respect of the Funded Activity will have terminated. The project closure date is identified in the signed FAA.

**Project completion (GCF term):**

131. The project completion date is the date of FAA effectiveness plus project duration. This date can only be extended through a formal extension request to the GCF Secretariat. Prior to the completion date, all UNDP-financed inputs must be provided and related activities for the Project completed. No activities, except for the final clearance of the Terminal Evaluation Report and the corresponding management response and the end-of-project review Project Board Meeting should take place after the Completion Date.

132. Project completion will be conducted as per UNDP requirements outlined in the UNDP POPP and in accordance with the GCF-approved and agreed Project Calendar/Milestones in the FAA, as follows:

Milestones	Timing
Start of Project Implementation	Effective Date
Inception Report	Within six (6) months from the Effective Date
Baseline Assessments	Within twelve (12) months from the Effective Date
Independent Interim Evaluation Report	Within three (3) months from Year three (3)

<sup>16</sup> See

[https://popp.undp.org/\\_layouts/15/WopiFrame.aspx?sourcedoc=/UNDP\\_POPP\\_DOCUMENT\\_LIBRARY/Public/PPM\\_Project%20Management\\_Closing.docx&action=default](https://popp.undp.org/_layouts/15/WopiFrame.aspx?sourcedoc=/UNDP_POPP_DOCUMENT_LIBRARY/Public/PPM_Project%20Management_Closing.docx&action=default).

End of Project Implementation	Completion Date
Project Completion Report (Final APR)	Within three (3) months from the Completion Date
Independent Terminal Evaluation Report	Within three (3) months of submission of Project Completion Report

**Project closure (UNDP term):**

133. Project closure will be conducted as per UNDP requirements outlined in the UNDP POPP. All costs incurred to close the project must be included in the project closure budget and reported as final project commitments presented to the Project Board during the final project review. The only costs a project may incur following the final project review are those included in the project closure budget.

- i) **Operational closure:** Operational closure must happen 9 months after the Completion Date as per the deadlines set in the FAA. Prior to operational closure, the Final Evaluation Report must have been submitted and the corresponding FER management response and the end-of-project review Project Board meeting must have been completed. The Implementing Partner through a Project Board decision will notify the UNDP Country Office when operational closure has been completed. Before Operational Closure, the project must have completed the transfer or disposal of any equipment that is still the property of UNDP (refer to Transfer or disposal of assets paragraph).
- j) **Financial closure:** Financial closure must happen within 6 months of operational closure or after the date of cancellation. The project is financially closed when the following conditions are met: a) project is operationally completed or has been canceled; b) Implementing Partner has reported all financial transactions to UNDP; c) UNDP has closed the accounts for the project; d) UNDP and the Implementing Partner have certified a final Combined Delivery Report (which serves as final budget revision). Between operational and financial closure, the implementing partner will identify and settle all financial obligations and prepare a final expenditure report. The UNDP Country Office will send the final signed closure documents including confirmation of final cumulative expenditure and unspent balance to the UNDP-BPPS/VF Programme Support, Oversight and Compliance Hub for confirmation before the project will be financially closed in Quantum by the UNDP Country Office.

**Cancellation and Suspension:**

134. All projects considering going through cancellation or suspension must follow UNDP and GCF requirements. Guidance can be found in the UNDP POPP ([SOPs for management actions of Vertical Fund projects escalated to the Executive Coordinator](#)) and the [GCF policy on restructuring and cancellation](#)).

**Refund to GCF:**

135. Should a refund of unspent funds to the GCF be necessary, this will be managed directly by the UNDP-BPPS VF Directorate in New York. No action is required by the UNDP Country Office on the actual refund from UNDP project to the GCF. Unspent project balance is not permitted to be transferred to any other projects.



X. TOTAL BUDGET AND WORK PLAN

PIMS ID	6360	Quantum Business Unit	UNDP-B&H
Quantum Project ID	01003140	Quantum Project Title	PIMS-6360-Scaling up climate resilient flood risk management in Bosnia and Herzegovina
Quantum Award ID	1306942	Quantum Award Title	PIMS-6360-GCF FRM
Implementing Partner	United Nations Development Programme (UNDP)		

Quantum Outcome	Quantum Activity	Quantum Activity	Quantum Responsible Party (UNDP, IP, or Responsible Party )	Quantum Fund ID	Quantum Donor ID	Quantum Budgetary Account Code	Quantum Budget Account Description	Amount 2024 (USD)	Amount 2025 (USD)	Amount 2026 (USD)	Amount 2027 (USD)	Amount Year 5 2028 (USD)	Amount 2029 USD)	Total (USD)	See Budget Note: (reference as number, not as letter)
(GCF Component)	(GCF Outcome)	(GCF Activity)													
Component 1 (It is the Project GCF)	Output 1. (as per Budget approved by GCF) Fully integrated impact-based Flood Forecasting and EWS facilitates timely preparation and response	Activity 1.1 (as per Budget approved by GCF) Upgrade and expand the coverage of the hydrometric network for enhanced monitoring of climate variables in Category I catchments and torrential streams	UNDP	66000	12526	71200	International Consultants	\$68,013	\$44,013	\$17,013	\$17,013	\$17,013	\$17,013	\$180,080	1
						71300	Local Consultants	\$19,800	\$20,000	\$0	\$0	\$0	\$0	\$39,800	2
						72300	Materials & Goods	\$643,050	\$643,050	\$0	\$0	\$0	\$0	\$1,286,100	3
						72100	Contractual Services - Companies	\$0	\$30,000	\$0	\$0	\$0	\$0	\$30,000	4
		Total UNDP					\$730,863	\$737,063	\$17,013	\$17,013	\$17,013	\$17,013	\$1,535,980		
		Activity 1.1 (as per Budget approved by GCF) Upgrade and expand the coverage of the hydrometric network for enhanced monitoring of	Ministry of Agriculture, Forestry and Water Management of RS	Government		7xxxx		\$93,810	\$77,660	\$77,779	\$81,268	\$84,643	\$89,153	\$504,312	Co-F 1
			Water Agency for Sava River Basin			7xxxx		\$104,920	\$116,666	\$116,666	\$116,666	\$116,666	\$110,638	\$682,222	

		climate variables in Category I catchments and torrential streams	Water Agency for Adriatic River Basin			7xxxx		\$176,190	\$327,619	\$103,333	\$103,333	\$103,333	\$95,239	\$909,048		
			Total Government Co-financing						\$374,920	\$521,945	\$297,778	\$301,267	\$304,642	\$295,031	\$2,095,582	
		Activity 1.1 (as per Budget approved by GCF) Upgrade and expand the coverage of the hydrometric network for enhanced monitoring of climate variables in Category I catchments and torrential streams	HPP	Private		7xxxx		\$61,687	\$183,333	\$283,333	\$83,333	\$83,333	\$79,365	\$774,384	Co-F 2	
			Total Private Sector						\$61,687	\$183,333	\$283,333	\$83,333	\$83,333	\$79,365	\$774,384	
		Total Activity 1.1							\$1,167,470	\$1,442,341	\$598,124	\$401,614	\$404,988	\$391,409	\$4,405,946	
		Activity 1.2 (as per Budget approved by GCF) Enhance climate-induced flood hazard, risk and vulnerability information for strategic risk management and sound decision making for climate induced flood management	UNDP	66000	12526	71200	International Consultants	\$35,633	\$38,153	\$14,693	\$14,693	\$14,693	\$14,693	\$132,560	5	
						71300	Local Consultants	\$19,800	\$29,700	\$0	\$0	\$0	\$0	\$49,500	6	
						71600	Travel	\$6,000	\$6,000	\$0	\$0	\$0	\$0	\$12,000	7	
						72100	Contractual Services - Companies	\$138,622	\$612,579	\$122,571	\$0	\$0	\$0	\$873,773	8	
			Total UNDP						\$200,056	\$686,433	\$137,265	\$14,693	\$14,693	\$14,693	\$1,067,833	
		Activity 1.2 (as per Budget approved by GCF) Enhance climate-induced flood hazard, risk and vulnerability information for	Ministry of Foreign Trade and Economic Relations			7xxxx		\$0	\$300,000	\$1,000,000	\$1,169,312	\$200,000	\$0	\$2,669,312	Co-F 1	
			Water Agency for Sava River Basin			7xxxx		\$50,000	\$100,000	\$200,000	\$50,000	\$0	\$0	\$400,000		

		strategic risk management and sound decision making for climate induced flood management	Water Agency for Adriatic River Basin			7xxxx		\$0	\$300,000	\$277,460	\$150,000	\$0	\$0	\$727,460		
			Total Government Co-financing						\$50,000	\$700,000	\$1,477,460	\$1,369,312	\$200,000	\$0	\$3,796,773	
		Activity 1.2 (as per Budget approved by GCF) Enhance climate-induced flood hazard, risk and vulnerability information for strategic risk management and sound decision making for climate induced flood management	HPP	Private		7xxxx		\$280,396	\$281,746	\$119,841	\$50,000			\$731,983	Co-F 2	
			Total Private Sector						\$280,396	\$281,746	\$119,841	\$50,000	\$0	\$0	\$731,983	
		Total Activity 1.2							\$530,451	\$1,668,179	\$1,734,566	\$1,434,006	\$214,693	\$14,693	\$5,596,589	
		Activity 1.3 (as per Budget approved by GCF) Develop an integrated impact-based centralized and community-based flood forecasting and early warning system (FFEWS)	UNDP	66000	12526	71200	International Consultants	\$8,507	\$23,507	\$41,007	\$8,507	\$8,507	\$8,507	\$98,540	9	
						71300	Local Consultants	\$10,000	\$0	\$0	\$0	\$0	\$0	\$10,000	10	
						72300	Materials & Goods	\$138,333	\$441,733	\$388,933	\$35,333	\$35,333	\$35,333	\$1,075,000	11	
						72100	Contractual Services - Companies	\$20,000	\$227,500	\$606,000	\$119,000	\$0	\$0	\$972,500	12 and 13	
			Total UNDP						\$176,840	\$692,740	\$1,035,940	\$162,840	\$43,840	\$43,840	\$2,156,040	
		Activity 1.3 (as per Budget approved by GCF) Develop an integrated impact-based centralized and community-based flood forecasting and	Ministry of Agriculture, Forestry and Water Managemen t of RS	Governm ent		7xxxx		\$30,000	\$177,660	\$47,779	\$0	\$0	\$0	\$255,438	Co-F 1	
			Water Agency for Sava River Basin			7xxxx	\$50,000	\$100,000	\$50,000	\$0	\$0	\$0	\$200,000			

	early warning system (FFEWS)	Water Agency for Adriatic River Basin			7xxxx		\$100,000	\$200,000	\$200,000	\$0	\$0	\$0	\$500,000	
		Total Government Co-financing						\$180,000	\$477,660	\$297,779	\$0	\$0	\$0	\$955,438
	Activity 1.3 (as per Budget approved by GCF) Develop an integrated impact-based centralized and community-based flood forecasting and early warning system (FFEWS)	HPP			7xxxx		\$50,000	\$300,000	\$600,000	\$50,000			\$1,000,000	Co-F 2
		Total Private Sector						\$50,000	\$300,000	\$600,000	\$50,000	\$0	\$0	\$1,000,000
	Total Activity 1.3						\$406,840	\$1,470,400	\$1,933,719	\$212,840	\$43,840	\$43,840	\$4,111,478	
	Activity 1.4 (as per Budget approved by GCF) Develop and implement protocols and SoPs on data generation, data management and communication for effective impact based FFEWS and flood risk management	UNDP	66000	12526	71300	Local Consultants	\$3,000	\$3,000	\$0	\$0	\$0	\$0	\$6,000	14
					71400	Contractual Services - Individual	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$90,000	15
					72100	Contractual Services - Companies	\$41,667	\$171,667	\$6,667	\$6,667	\$6,667	\$6,667	\$240,000	16
		Total UNDP						\$59,667	\$189,667	\$21,667	\$21,667	\$21,667	\$21,667	\$336,000
	Activity 1.4 (as per Budget approved by GCF) Develop and implement protocols and SoPs on data generation, data management and communication for effective impact based	Water Agency for Adriatic River Basin	Governm ent		7xxxx		\$0	\$100,000	\$100,000	\$0	\$0	\$0	\$200,000	Co-F 1
Total Government Co-financing						\$0	\$100,000	\$100,000	\$0	\$0	\$0	\$200,000		

		FFEWS and flood risk management														
		Total Activity 1.4						\$59,667	\$289,667	\$121,667	\$21,667	\$21,667	\$21,667	\$536,000		
	Total Output 1						\$2,164,428	\$4,870,586	\$4,388,076	\$2,070,126	\$685,188	\$471,609	\$14,650,013			
Total Component 1							\$2,164,428	\$4,870,586	\$4,388,076	\$2,070,126	\$685,188	\$471,609	\$14,650,013			
Component 2 (It is the Project GCF)	Output 2. (as per Budget approved by GCF) Fully integrated impact-based Flood Forecasting and EWS facilitates timely preparation and response	Activity 2.1 (as per Budget approved by GCF) Mainstream climate induced flood risk reduction into sectoral planning (agriculture, hydropower, critical infrastructure) and spatial planning	UNDP	66000	12526	71200	International Consultants	\$29,833	\$50,833	\$73,333	\$19,333	\$19,333	\$19,333	\$212,000	17	
						71600	Travel	\$0	\$0	\$6,000	\$0	\$0	\$0	\$6,000	18	
						75700	Training, Workshops and Conference	\$0	\$29,000	\$59,000	\$0	\$0	\$0	\$88,000	19	
						72100	Contractual Services - Companies	\$0	\$0	\$60,000	\$0	\$0	\$0	\$60,000	20	
		Total UNDP					\$29,833	\$79,833	\$198,333	\$19,333	\$19,333	\$19,333	\$366,000			
		Activity 2.1 (as per Budget approved by GCF) Mainstream climate induced flood risk reduction into sectoral planning (agriculture, hydropower, critical infrastructure) and spatial planning	Ministry of Spatial Planning, Civil Engineering and Ecology	Governm ent		7xxxx		\$15,000	\$35,000	\$40,000	\$0	\$0	\$0	\$90,000	Co-F 3	
			Total Government Co-financing					\$15,000	\$35,000	\$40,000	\$0	\$0	\$0	\$90,000		
		Total Activity 2.1						\$44,833	\$114,833	\$238,333	\$19,333	\$19,333	\$19,333	\$456,000		
		Activity 2.2 (as per Budget approved by GCF) Implementatio n and mainstream new	UNDP	66000	12526		72100	Contractual Services - Companies	\$0	\$742,312	\$2,431,874	\$1,924,649	\$769,912	\$0	\$5,868,747	21 and 22
			Total UNDP						\$0	\$742,312	\$2,431,874	\$1,924,649	\$769,912	\$0	\$5,868,747	

		ecosystem-based flood risk reduction and climate change adaptation methods													
	Activity 2.2 (as per Budget approved by GCF) Implementation and mainstream new ecosystem-based flood risk reduction and climate change adaptation methods	Ministry of Agriculture, Forestry and Water Management of RS	Government		7xxxx		\$0	\$400,000	\$400,000	\$481,268	\$384,643	\$344,709	\$2,010,621	Co-F 3	
		Water Agency for Sava River Basin			7xxxx		\$0	\$3,435,397	\$3,432,540	\$3,442,540	\$3,445,397	\$0	\$13,755,873		
		Water Agency for Adriatic River Basin			7xxxx		\$0	\$460,000	\$690,000	\$642,222	\$433,175	\$0	\$2,225,397		
		Total Government Co-financing						\$0	\$4,295,397	\$4,522,540	\$4,566,030	\$4,263,214	\$344,709	\$17,991,891	
		Activity 2.2 (as per Budget approved by GCF) Implementation and mainstream new ecosystem-based flood risk reduction and climate change adaptation methods	HPP			7xxxx			\$600,000	\$600,000	\$657,937	\$397,601	\$0	\$2,255,538	Co-F 4
			Total Private Sector						\$0	\$600,000	\$600,000	\$657,937	\$397,601	\$0	\$2,255,538
Total Activity 2.2							\$0	\$5,637,709	\$7,554,413	\$7,148,616	\$5,430,728	\$344,709	\$26,116,175		
	Activity 2.3 (as per Budget approved by GCF) Codify and mainstream EbA solutions into policies and regulations and promote non-structural measures among decision	UNDP	66000	12526	71200	International Consultants	\$42,280	\$9,280	\$9,280	\$9,280	\$9,280	\$9,280	\$88,680	23	
					71400	Contractual Services - Individual	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$90,000	24	
					72100	Contractual Services - Companies	\$0	\$30,000	\$0	\$0	\$0	\$0	\$30,000	25	
		Total UNDP						\$57,280	\$54,280	\$24,280	\$24,280	\$24,280	\$24,280	\$208,680	

		makers and communities												
	Activity 2.3 (as per Budget approved by GCF) Codify and mainstream EbA solutions into policies and regulations and promote non-structural measures among decision makers and communities	Ministry of Spatial Planning, Civil Engineering and Ecology	Government		7xxxx		\$0	\$0	\$0	\$30,000	\$30,000	\$30,000	\$90,000	Co-F 3
		Total Government Co-financing					\$0	\$0	\$0	\$30,000	\$30,000	\$30,000	\$90,000	
		Total Activity 2.3						\$57,280	\$54,280	\$24,280	\$54,280	\$54,280	\$54,280	\$298,680
	Activity 2.4 (as per Budget approved by GCF) Review and strengthen institutional capacity and develop long-term institutional capacity development plans for climate resilient FRM	UNDP	66000	12526	71200	International Consultants	\$49,996	\$10,000	\$13,332	\$26,664	\$0	\$40,008	\$140,000	26
					71600	Travel	\$0	\$0	\$0	\$0	\$4,500	\$4,500	\$9,000	27
					75700	Training, Workshops and Conference	\$0	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$40,000	28
					72100	Contractual Services - Companies	\$18,000	\$5,250	\$5,250	\$41,250	\$2,625	\$38,625	\$111,000	29
		Total UNDP					\$67,996	\$23,250	\$26,582	\$75,914	\$15,125	\$91,133	\$300,000	
	Activity 2.4 (as per Budget approved by GCF) Review and strengthen institutional capacity and develop long-term institutional capacity development plans for climate resilient FRM	Ministry of Agriculture, Forestry and Water Management of RS	Government		7xxxx		\$0	\$30,000	\$30,000	\$20,000	\$20,000		\$100,000	Co-F 3
		Water Agency for Sava River Basin			7xxxx		\$30,000	\$40,000	\$50,000	\$40,000	\$30,000	\$10,000	\$200,000	
Water Agency for Adriatic River Basin		7xxxx				\$0	\$60,000	\$80,000	\$60,000			\$200,000		
Total Government Co-financing					\$30,000	\$130,000	\$160,000	\$120,000	\$50,000	\$10,000	\$500,000			

Output 3. (as per Budget approved by GCF)Climate -proof flood protection measures scaled-up through new and improved national and local investment frameworks increasing resilience of the most vulnerable groups to climate induced flooding		Total Activity 2.4					\$97,996	\$153,250	\$186,582	\$195,914	\$65,125	\$101,133	\$800,000		
	Total Output 2						\$200,109	\$5,960,072	\$8,003,609	\$7,418,143	\$5,569,466	\$519,456	\$27,670,855		
	Activity 3.1 (as per Budget approved by GCF) Develop a country-wide investment framework for climate induced flood risk reduction and management including provisions for private sector engagement in climate risk financing.	UNDP	66000	12526	71200	International Consultants	\$8,507	\$8,507	\$25,307	\$8,507	\$8,507	\$33,707	\$93,040	30	
					71300	Local Consultants	\$0	\$45,900	\$43,500	\$0	\$0	\$0	\$89,400	31	
					75700	Training, Workshops and Conference	\$0	\$0	\$25,000	\$0	\$0	\$0	\$25,000	32	
							72100	Contractual Services - Companies	\$0	\$206,500	\$66,500	\$0	\$0	\$0	\$273,000
					Total UNDP					\$8,507	\$260,907	\$160,307	\$8,507	\$8,507	\$33,707
		Activity 3.1 (as per Budget approved by GCF) Develop a country-wide investment framework for climate induced flood risk reduction and management including provisions for private sector engagement in climate risk financing.	Association of Insurance Companies FB&H	Private		7xxxx		\$28,571	\$38,095	\$66,667	\$66,667	\$47,619	\$38,095	\$285,714	Co-F 7
			Re-insurance company Bosna-Re			7xxxx		\$31,746	\$47,619	\$66,667	\$76,190	\$47,619	\$47,619	\$317,460	
			Total Private Sector					\$60,317	\$85,714	\$133,333	\$142,857	\$95,238	\$85,714	\$603,174	
		Total Activity 3.1						\$68,824	\$346,621	\$293,640	\$151,364	\$103,745	\$119,421	\$1,083,614	
		Activity 3.2 (as per Budget approved by GCF) Formulate multi-year climate resilient municipal investment plans and	UNDP	66000	12526	71200	International Consultants	\$39,996	\$0	\$23,332	\$26,664	\$0	\$40,008	\$130,000	34
	71300					Local Consultants	\$0	\$0	\$15,000	\$0	\$0	\$0	\$15,000	35	
	71400					Contractual Services - Individual	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$90,000	36	
	72100					Contractual Services - Companies	\$18,000	\$0	\$200,000	\$36,000	\$0	\$36,000	\$290,000	37	



		gender responsive community preparedness plans in selected municipalities and in one canton in Vrbas, Una-Sana, Bosna, Drina, Neretva and Trebišnjica basins.	Total UNDP					\$72,996	\$15,000	\$253,332	\$77,664	\$15,000	\$91,008	\$525,000	
		Activity 3.2 (as per Budget approved by GCF) Formulate multi-year climate resilient municipal investment plans and gender responsive community preparedness plans in selected municipalities and in one canton in Vrbas, Una-Sana, Bosna, Drina, Neretva and Trebišnjica basins.	Ministry of Foreign Trade and Economic Relations	Government		7xxxx		\$0	\$550,000	\$904,762	\$1,000,000	\$166,931	\$0	\$2,621,693	Co-F 5
			Total Government Co-financing					\$0	\$550,000	\$904,762	\$1,000,000	\$166,931	\$0	\$2,621,693	
		Activity 3.2 (as per Budget approved by GCF) Formulate multi-year climate resilient municipal investment plans and gender responsive community preparedness plans in selected municipalities and in one canton in Vrbas, Una-Sana, Bosna, Drina, Neretva and Trebišnjica basins.	UNDP	UNDP		7xxxx		\$190,295	\$285,895					\$476,190	Co-F 6
			Total UNDP /Track and other Co-financing)					\$190,295	\$285,895	\$0	\$0	\$0	\$0	\$476,190	

		preparedness plans in selected municipalities and in one canton in Vrbas, Una-Sana, Bosna, Drina, Neretva and Trebišnjica basins.												
Total Activity 3.2							\$263,291	\$850,895	\$1,158,094	\$1,077,664	\$181,931	\$91,008	\$3,622,884	
Activity 3.3 (as per Budget approved by GCF) Implement climate-proof structural flood risk reduction and anti-erosion interventions in Vrbas, Una-Sana, Bosna and Drina River basins.	UNDP	66000	12526	71200	International Consultants	\$0	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$125,000	38	
				72100	Contractual Services - Companies	\$150,056	\$150,056	\$150,056	\$150,056	\$150,056	\$0	\$750,280	39	
	Total UNDP					\$150,056	\$175,056	\$175,056	\$175,056	\$175,056	\$175,056	\$25,000	\$875,280	
Activity 3.3 (as per Budget approved by GCF) Implement climate-proof structural flood risk reduction and anti-erosion interventions in Vrbas, Una-Sana, Bosna and Drina River basins.	Ministry of Agriculture, Forestry and Water Management of RS	Government		7xxxx		\$0	\$208,300	\$333,300	\$166,733	\$125,000	\$0	\$833,333	Co-F 5	
	Total Government Co-financing					\$0	\$208,300	\$333,300	\$166,733	\$125,000	\$0	\$833,333		
Activity 3.3 (as per Budget approved by GCF) Implement climate-proof structural flood risk reduction	EIB/WB Loan - Ministry of Agriculture, Forestry and Water Management of RS	Other		7xxxx		\$0	\$1,000,000	\$8,042,286	\$6,021,143	\$4,015,820	\$1,026,571	\$20,105,820	Co-F 8	

		and anti-erosion interventions in Vrbas, Una-Sana, Bosna and Drina River basins.	Total Other Co-Financing					\$0	\$1,000,000	\$8,042,286	\$6,021,143	\$4,015,820	\$1,026,571	\$20,105,820		
		Total Activity 3.3					\$150,056	\$1,383,356	\$8,550,642	\$6,362,932	\$4,315,876	\$1,051,571	\$21,814,433			
		Total Output 3					\$482,171	\$2,580,872	\$10,002,376	\$7,591,960	\$4,601,552	\$1,262,000	\$26,520,931			
Project Management Cost (PMC)	PMC	PMC	UNDP	66000	12526	71400	Contractual Services - Individual	\$99,667	\$99,667	\$99,667	\$99,667	\$99,667	\$99,667	\$99,667	\$598,000	40
						71600	Travel	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$24,000	41
						72400	Communic & Audio Visual Equip	\$1,833	\$1,833	\$1,833	\$1,833	\$1,833	\$1,833	\$11,000	42	
						72400	Information and Communications Technology (ICT)	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$9,000	43
						72500	Supplies	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$9,000	44
						73100	Rental & Maintenance -Premises	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$24,000	45
						75700	Training, Workshops and Conference	\$5,000	\$0	\$0	\$0	\$0	\$0	\$0	\$5,000	46
			Total UNDP					\$117,500	\$112,500	\$112,500	\$112,500	\$112,500	\$112,500	\$112,500	\$680,000	
			UNDP	AE	AE	61100	Salary costs - NP staff	\$27,600	\$27,600	\$27,600	\$27,600	\$27,600	\$27,600	\$27,600	\$165,600	47
						61200	Salaries Costs - GS Staff	\$22,400	\$22,400	\$22,400	\$22,400	\$22,400	\$22,400	\$22,400	\$134,400	48
			Total UNDP					\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$300,000	
			Ministry of Agriculture, Forestry and Water Manageme nt of RS	Governm ent		7xxxx		\$6,190	\$44,681	\$44,443	\$37,463	\$30,714	\$21,693	\$185,185	Co-F 9	

			Water Agency for Sava River Basin			7xxxx		\$11,746	\$189,603	\$192,460	\$182,460	\$179,603	\$6,032	\$761,905			
			Water Agency for Adriatic River Basin			7xxxx		\$13,810	\$72,381	\$72,540	\$47,778	\$26,825	\$4,762	\$238,095			
			Ministry of Foreign Trade and Economic Relations			7xxxx		\$0	\$60,847	\$95,238	\$108,466	\$0	\$0	\$264,550			
			Ministry of Spatial Planning, Civil Engineerin g and Ecology			7xxxx		\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$120,000			
			Total Government Co-financing							\$51,746	\$387,512	\$424,681	\$396,167	\$257,143	\$52,487	\$1,569,735	
			UNDP	UNDP		7xxxx		\$59,515	\$64,295	\$50,000	\$50,000	\$50,000	\$50,000	\$323,810	Co-F 10		
			Total UNDP /Track and other Co-financing)							\$59,515	\$64,295	\$50,000	\$50,000	\$50,000	\$50,000	\$323,810	
			HPP	Private		7xxxx		\$19,604	\$68,254	\$80,159	\$42,063	\$24,047	\$3,968	\$238,095	Co-F 11		
			Association of Insurance Companies FB&H			7xxxx		\$1,429	\$1,905	\$3,333	\$3,333	\$2,381	\$1,905	\$14,286			
			Re-insurance company Bosna-Re			7xxxx		\$1,587	\$2,381	\$3,333	\$3,810	\$2,381	\$2,381	\$15,873			
			Total Private Sector							\$22,620	\$72,540	\$86,825	\$49,206	\$28,809	\$8,254	\$268,254	
			EIB/WB Loan - Ministry of Agriculture, Forestry and Water Manageme nt of RS	Other		7xxxx		\$0	\$251,329	\$402,114	\$201,057	\$150,791		\$1,005,291	Co-F 12		
			Total Other Co-Financing							\$0	\$251,329	\$402,114	\$201,057	\$150,791	\$0	\$1,005,291	

	Total Activity 3.3	\$251,381	\$888,175	\$1,076,121	\$808,931	\$599,242	\$223,241	\$3,847,090	
	Total PMC	\$251,381	\$888,175	\$1,076,121	\$808,931	\$599,242	\$223,241	\$3,847,090	
Total Project Grant		\$1,671,594	\$3,769,041	\$4,594,148	\$2,634,117	\$1,236,926	\$494,174	\$14,400,000	
Total Government		\$701,666	\$7,405,813	\$8,558,299	\$7,949,510	\$5,396,930	\$732,227	\$30,744,445	
Total UNDP (TRAC + other Co-financing)		\$249,810	\$350,190	\$50,000	\$50,000	\$50,000	\$50,000	\$800,000	
Total Private sector		\$475,020	\$1,523,333	\$1,823,333	\$1,033,333	\$604,981	\$173,333	\$5,633,333	
Total Other		\$0	\$1,251,329	\$8,444,400	\$6,222,200	\$4,166,611	\$1,026,571	\$21,111,111	
Project Grand Total:		\$3,098,090	\$14,299,706	\$23,470,180	\$17,889,160	\$11,455,448	\$2,476,305	\$72,688,889	

### Budget notes

Budget Note No.	Budget Notes (Description)
1	<p>International Hydrometric expert to undertake review and assessment of the existing hydrometric monitoring network and detailed design of optimized hydrometric network :</p> <ul style="list-style-type: none"> <li>- Identify and design optimised hydrometric monitoring network</li> <li>- Prepare detailed technical specification and procurement documents for hydrometric network procurement.600 USD @25Days, Total:15000 USD</li> </ul> <p>International expert to review of existing public and private sector financing mechanisms for climate and flood risk management.</p> <ul style="list-style-type: none"> <li>- Identify key private sector players at risk from flooding, for key sectors including critical Infrastructure providers/managers, utility companies communications, telecommunications, Transportation Sector (Airlines/Air Traffic, road and rail operators), energy (hydropower and other than Hydropower);</li> <li>- Private enterprises such as hotel groups, chamber of commerce or business community, insurance and micro-finance companies and</li> <li>- Undertake awareness raising on flood risk, flood risk management approaches for private and public sector.</li> <li>- Develop prototype mechanisms for cost recovery from a variety of private sector sources.600USD @35Days, Total:21000 USD</li> </ul> <p>International expert to develop public sector financing mechanisms</p> <ul style="list-style-type: none"> <li>- Establishing and safeguarding public sector long-term commitment of network maintenance, capacity building for design, installation and maintenance of monitoring networks, community-managed gauging stations.</li> <li>- Development of innovative risk financing mechanisms that would seek to engage entity level and local government and beneficiary communities in O&amp;M of hydrometric network.</li> <li>- Develop Public Sector O&amp;M financing strategy, action plan, budgetary allocation mechanisms and tools. 600USD @20Days, Total:12000 USD</li> </ul> <p>International Hydrologist to lead all hydrological studies, 600USD @50Days, Total: 30000USD</p> <p>Provision for contractual services of a Chief Technical Advisor (CTA) for the 6 years of the project. The total cost for the CTA is USD 464,000 for 580 days split across activities: activity 1.1.- 22% of time i.e. USD 102,080, 800USD @580Days, Total: 102080USD</p>
2	<p>National Telecommunications and ICT expert to develop the optimised basin telecommunications and ICT network plan, detailed specification, design and procurement documents to support the expanded hydrometric network; 300USD @16Days, Total: 4800 USD</p> <p>National expert work with International consultant in climate risk financing to:</p> <ul style="list-style-type: none"> <li>- Conduct a willingness to pay analysis for key private sector players for increased data provision of key hydrometeorological data.</li> <li>- Conduct detailed feasibility assessment of key private sector players to; a) determine their interest in paying for tailored products that will be used in their operations; b) to determine their willingness to support or partially support the O&amp;M of hydrometric monitoring and early warning systems, equipment and information products.250USD @80Days, Total: 20000USD</li> </ul>

	National expert in hydrometric network design to review of the existing coverage, physical condition and data collection procedures of the basin hydrometric network, working across all basins , to help develop and provide detailed specification and design including costs of all equipment and each component of the networks specified, including the detailed design and bid document for the stations for rehabilitation / new installation. Assist in preparation of Technical specification, bill of quantity (BoQ), procurement plan for the optimised hydrometric network. 300USD @50Days, Total: 15000USD
3	Upgrade of hydrometric network - Procurement and installation of new hydrological, meteorological and groundwater stations. 1 Item, Total:1286100USD
4	Provide 6 one-day training for 50 hydrometric staff in the O&M of upgraded hydrometric stations. - 50 practitioners of HMLs and WAs trained in O&M of upgraded hydrometric stations. 5000USD @6Workshops, Total: 30000USD
5	International Institutional capacity expert to : - Undertake capacity assessment of relevant institutions for flood risk assessment and modelling and - Develop a long-term capacity development plan and training needs. 600USD @13Days, Total: 7800USD International Hydraulic modeler to lead modeling under 1.2.2 and develop national capacities. 600USD @36Days, Total: 21600USD International expert to review existing guidance, methodologies and specifications for dam breach modelling and mapping. - Develop a unified technical guidance and specification for dam safety flood risk assessment, inundation modelling and mapping to include dam breach modelling and mapping which includes climate risk considerations. - Develop a strategy and programme of updating dam breach modelling and mapping based on developed unified guidance to cover all high and medium hazard dams in B&H. - Deliverable: Guidance, methodologies and specifications for dam breach modelling and mapping; Strategy and programme of updating dam breach modelling and mapping for all medium and high hazard dams in B&H.600USD @25Days, Total: 15000USD Provision for contractual services of a Chief Technical Advisor (CTA) for the 6 years of the project. The total cost for the CTA is USD 464,000 for 580 days split across activities: activity 1.2.- 19% of time i.e. USD 88,160. 800USD @580Days, Total: 88160USD
6	National socio-economics consultant - Develop the technical methodology for the systematic collection of gender-sensitive socio-economic data to support natural disaster risk and vulnerability assessment, based on community surveys and PGIS methodology developed under Vrbas. - Undertake gender sensitive socio-economic surveys for target river basins. Deliverable: socio-economic surveys for target river basins - Undertake gender sensitive socio-economic risk and vulnerability modelling and assessment based on enhanced flood hazard maps using the Vrbas risk modelling methodology. Develop socio-economic flood risk and vulnerability modelling and mapping of target basins. 300USD @90Days, Total: 27000USD National gender expert to assist in and ensure gender responsiveness in data collection, risk and vulnerability assessment and modelling, maps development. 250USD @90Days, Total: 22500USD
7	Travel costs: DSA and internal travel; local consultants inclusive of vehicle costs and DSA. 150USD @40Days, Total: 6000USD Travel costs: DSA and internal travel; local consultants inclusive of vehicle costs and DSA. 150USD @40Days, Total: 6000USD
8	Consultant in hydrological modelling to undertake: - Hydrological model conceptualisation for each basin and review and analysis of available data for developing detailed hydrological models for fluvial, torrent, and groundwater and HPP hydrological modelling in each river basin using the most appropriate modelling techniques, establish basin numerical hydrological models as inputs to the hydraulic models. 1 Item, Total: 34673 USD Consultant in HPP reservoir flood and operation modelling - Develop guidance, methodologies and specifications for the inclusion of HPP operations in flood hazard modelling and mapping. - Development of reservoir operation models for all target basins and inclusion within basin flood models. - Review the existing reservoir optimisation models for Adriatic sub-basins - Neretva and Trebisnjica and update/develop a basin model, - incorporate groundwater modelling into basin model. - Develop optimised operating rules to significantly reduce the height of the flood wave downstream from Mostar.1Study, Total: 160000USD Acquire/procure datasets necessary for the development of enhanced hydrological models for detailed fluvial, torrent, and groundwater hydrological modelling in each river basin (surveys and data purchase) Acquire/purchase/commission high resolution topographic data for the floodplain areas through high risk areas (Aerial photographs or LiDAR

	<p>sources would be recommended in order to obtain a high-resolution DEM covering entire basins. Coarser DEM and topographic data will be used for the rest of the basin for basin wide modelling). 1Item, Total: 120000USD</p> <p>National Hydraulic Modelling:</p> <ul style="list-style-type: none"> <li>- Undertake detailed topographic surveys of the river channel where necessary, including all major infrastructure across the river (e.g. bridges, dams etc.) and along riverbanks (e.g. flood walls, levees etc.) for the parts of the basins to be modelled.</li> <li>- Using the most appropriate modelling techniques, establish numerical high-level basin wider hydraulic models. For each basin undertake detailed linked hydrological-hydraulic modelling in line with the unified EUFD methodology and produce high resolution flood hazard inundation maps.</li> <li>- Integrate detailed hydrological and hydraulic modelling for Areas for further assessment (AFAs) being modelled by WBI project into the high-level river basin models. 1Item, Total: 130100USD</li> </ul> <p>Consultant in Torrents/flashflood flooding and erosion modelling</p> <ul style="list-style-type: none"> <li>- Develop Cadastre of torrential basins</li> <li>- Develop flash flood cadastre and flash flood susceptibility models, in line with the methodology for flash flood susceptibility modelling implemented on the Vrbas River Basin, for all other target basins.</li> <li>- Identify anti-erosion measures including structural and non-structural measures on individual river basin areas.</li> <li>- Develop finalised torrential hazard and risk maps for all target basins. 1Study, Total 429000USD</li> </ul>
9	<p>Provision for contractual services of a Chief Technical Advisor (CTA) for the 6 years of the project. The total cost for the CTA is USD 464,000 for 580 days split across activities: activity 1.3.- 11% of time i.e. USD 51,040. 800USD @580Days, Total: 51040USD</p> <p>International consultant to review existing access to and use of climate and flood risk information in energy (HPP) sector, to undertake studies to identify and design tailored climate information products and services for the HPP sector.</p> <ul style="list-style-type: none"> <li>- This will include cost-benefit analysis and appraisal of the options as well as detailed sector analysis including willingness to pay surveys. 700USD @25Days, Total: 17500USD</li> </ul> <p>International expert to review existing access to and use of climate and flood risk information in agriculture sector and design tailored climate information products and services for agricultural sector. 600USD @50Days, Total: 30000USD</p>
10	<p>Undertake an institutional capacity assessment of FRM institutions, and develop a capacity development plan for embedding flood hazard and risk modelling approaches and FFEWS into appropriate institutions in B&amp;H. 400USD @15Days, Total: 6000USD</p> <p>National gender expert to ensure gender responsive capacity development plan and climate information products. 250USD @16Days, Total 4000USD</p>
11	<p>Improvements in Meteorological forecasting capabilities</p> <ul style="list-style-type: none"> <li>- ECMWF Membership USD 45,000 and; ECMWF data for 6 years, USD 180,000</li> <li>- Global Meteorological Forecasting Data Sources - GPM &amp; MPE USD 40,000, Total; 265000USD</li> </ul> <p>Upgrade of ICT to support FFEWS platform. 1Item, Total: 100000USD</p> <p>Equipment for Community-based EWS:</p> <ul style="list-style-type: none"> <li>- Purchases of monitoring devices - Water level sensors (x60)</li> <li>- Purchases of monitoring devices - Staff gauges (x120)</li> </ul> <p>Total: 356400USD</p> <p>Purchase of communication tools - GSM/GPRS modem device (x2); Generators (x60); Sirens (x60); Boards (x120); Miscellaneous, Items Total: 353600USD</p>
12	<p>Development of new climate information products and services for the HPP.</p> <ul style="list-style-type: none"> <li>- The activity will include a detailed information needs assessment survey targeting HPP operators.</li> <li>- Workshops and information sessions will be carried out in order to collect information about what data would be particularly useful to them, how would it be best to disseminate this information and their current practices.</li> <li>- Development of HPP sector specific climate information products, tools and services. Items, Total: 150000USD</li> </ul> <p>Capacity building and training for HPP practitioners, including specific training on the use of climate information products and services - on the spot training with 3 power companies and HPP practitioners at hydro-power intensive watersheds, at app 25 locations. 400USD @50Days, Total: 20000USD</p> <p>International Forecasting and early warning expert – Agriculture:</p> <ul style="list-style-type: none"> <li>- Development of new climate information products for the agricultural sector and delivery of these products to the farmers. 1Study, Total: 130000USD</li> </ul>

	Implement a capacity development plan for embedding flood hazard and risk modelling approaches and FFEWS into appropriate institutions in B&H - set of twenty 2-day workshops for relevant institutions at state, entity and cantonal level in charge of agriculture, spatial planning, civil engineering and ecology covering. 4000USD @20Workshops, total: 80000USD
	Establishment of CBEWS in identified communities, including capacity building for responsible municipal personnel; Developing last mile warning and communication system - Technologies implementation. 400USD @525Days, Total: 210000USD
	Supporting improvement of agrometeorological advisory services to farmers. - ToT for agricultural specialists working with local farmers to teach them how best to use the weather forecasts within their farming methods. - Usage of automatic SMS text messaging to disseminate information to registered farmers. Workshop, Total: 47500USD
13	Consultant for development of Flood Forecasting and Early Warning System - Hydrological Forecast Model development – Neretva and Trebišnjica - Hydraulic Forecast Model development – Neretva and Trebišnjica - Development of last-mile communication models. 1Item, total: 335000USD
14	National consultant to finalise data sharing protocols on: - Protocol on the horizontal and vertical inter-sectoral cooperation on flood risk management to harmonize water management between entities and ensure timely information flow to the state level for the purpose of international reporting obligations; - Protocol on cooperation between water management key sectors; - Protocol establishing an effective M&E system for flood risk management activities. 300USD @20Days, Total: 6000 USD
15	Project officer; Total cost of USD 180,000 split across outputs: 25% of time devoted to output 1 - USD 45,000.
	Project officer - DRR institutional expert; Total cost of USD 180,000 split across outputs: 25% of time devoted to output 1 - USD 45,000
16	TA from International consultant for developing last mile warning and communication system (including dissemination and warning technologies) to: - Help the government to clearly define the supporting SOPs including - Definition of major and minor hazards to which the different levels of response will be needed, and review of criteria for their distinction. - Thresholds and areas of influence will be determined through hazard and risk mapping based on which definition of the response size and resources to be deployed will be determined for relevant response agencies (including local and regional authorities). - Criteria for the definition of the different warning levels will be established and different standard types of messages will be devised depending on the recipient of the message. - Clear communication lines between different agencies will be established, any duplication and inefficiencies will be eliminated. Moreover, the role of the operations Center will be clarified, and their capacities strengthened in terms of warnings and operative responses from first responders. 600USD @50Days, Total: 30,000USD
	Development of Standard Operational Procedures, on data generation, at management and communication for effective FFEWS, Including technology updates to existing data sharing software and databases (WIS and HIS). 1Item, Total:100,000USD
	National Consultant in GIS-based systems and technology to: - Scale up FRM data sharing technologies - Development and extension of the Vrbas GeoPortal a municipal level flood risk data sharing and PGIS platform; - Contribute to the development of the Disaster Risk Analysis System. 1Item, Total: 70,000USD
	Establishment of inter-entity, cross-sectoral flood risk management platform. - To integrated local level and embed FRM into local development processes; - Work closely with the Focal Point to promote effective coordination of activities; 1Study, Total: 40,000USD
17	International consultant for review of existing hydropower sector dam safety strategies, policies and plans and identify entry points for embedding climate risk resilient approaches; - Develop the climate risk-informed dam flood safety strategy for dams in B&H; - Integrate climate risk and adaptation priorities into the HPP sector plans, investments and budget frameworks, including the investment appraisal skills, economic valuation of climate change impacts, based on sector model, trade off analysis and cost-benefit assessments for a range of plausible adaptation options in HPP;



	<ul style="list-style-type: none"> <li>- Development of guidance documents, methodologies and technical regulations for the HPP sector on climate risk assessment and management and the use of climate information.600USD @35Days, Total: 21000USD</li> </ul>
	<ul style="list-style-type: none"> <li>International consultant for technical assistance to entity forestry for: <ul style="list-style-type: none"> <li>- Development and mainstreaming of basin afforestation/reforestation and agro-forestry strategies and FR adaptation priorities into the forestry sector plans, investments and budget frameworks;</li> <li>- Development of the skills, tools and methods as well as generated technical material to enhance forestry sector-wide planning and make investment decisions more climate risk responsive;</li> <li>- Development of guidance documents, methodologies and technical regulations for the forestry sector on flood risk assessment and management and the use of climate change induced flood risk information in forestry management.600USD @55Days, Total: 33000USD</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>International consultant in critical infrastructure design for: <ul style="list-style-type: none"> <li>- Review of existing design guidelines and specifications and identify requirement for revised and improved approaches to respond to the changing climate and existing conditions on the ground;</li> <li>- Development and codification of revised guidelines and specifications based on detailed methodologies for incorporating CC considerations into risk assessments, strategies, policies and plans for all critical infrastructure relevant sectors using international best practice,</li> <li>- Development of plan for long term capacity strengthening of practitioners.600USD @70Days, Total: 42000USD</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>Provision for contractual services of a Chief Technical Advisor (CTA) for the 6 years of the project. The total cost for the CTA is USD 464,000 for 580 days split across activities: activity 2.1.- 25% of time i.e. USD 116,000. 800USD @580Days, Total: 116000USD</li> </ul>
18	<ul style="list-style-type: none"> <li>Travel costs: DSA and internal travel; local consultants inclusive of vehicle costs and DSA. 150USD @40Trips, Total: 6000USD</li> </ul>
19	<ul style="list-style-type: none"> <li>Training of 40 WA practitioners and engineers in: <ul style="list-style-type: none"> <li>- Climate resilient infrastructure design</li> </ul> </li> <li>Training and technical assistance for 40 WA staff in <ul style="list-style-type: none"> <li>- Climate resilient project prioritisation and feasibility studies</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>4000USD @7Workshops, Total: 28000USD</li> </ul>
	<ul style="list-style-type: none"> <li>TA and training of WA and municipal engineering using new CBA methods for project prioritization. 4000USD @15Workshops, Total: 60000USD</li> </ul>
20	<ul style="list-style-type: none"> <li>National consultant in agriculture for: <ul style="list-style-type: none"> <li>- Development and mainstreaming of a strategy for climate-smart agriculture which integrates climate risk and adaptation priorities into the agriculture sector plans, investments and budget frameworks,</li> <li>- Support policy development and implementation;</li> <li>- Undertake large-scale surveys of farmers' attitudes to proposed climate-smart FRM methods;</li> <li>- Undertake an economic analysis of the impact of different FRM measures under different scenarios and across different farming systems;</li> <li>- Development of the skills, tools and methods as well as generated technical material to enhance agriculture sector-wide planning and make investment decisions more climate risk responsive;</li> <li>- Development of guidance documents, methodologies and technical regulations for the agricultural sector on flood risk assessment and management and the use of climate change induced flood risk information and agricultural risk management.1Item, Total: 36000USD</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>National Consultant in Spatial planning to: <ul style="list-style-type: none"> <li>- Update the existing floodplain zoning policy to produce the country-wide flood zone designation policy for all basins in B&amp;H;</li> <li>- Establish and publish development control rules and regulations designed to zone activities away from high risk areas and to encourage environmental enhancement of the floodplain;</li> <li>- Develop policies for development of construction and building codes for properties in the floodplain that incorporate climate change flood resilience.;</li> <li>- Develop missing and update existing, local/cantonal Spatial Plans and integration of Flood Zoning Policy and flood hazard and risk information into the local/cantonal Spatial Plans for 10-12 municipalities and cantons;</li> <li>- Develop and implement a capacity building roadmap for state and entity authorities. 1Item, Total: 24000USD</li> </ul> </li> </ul>

21	Design of non structural measures in Jošavka river basin. Identify agriculture infrastructure that could address climate threats, such as irrigation systems and reservoirs and rainwater collection in each target basin; Assess and identify flood risks to agricultural infrastructure in target basins, as well as flood risk management opportunities associated with agricultural infrastructure under climate change and potential new infrastructure such as irrigation retention basins that could also serve as flood storage areas; Design an agro-forestation scheme identified area of floodplain and develop an implementation plan for the scheme; 1Study, Total: 99000USD
	Supervision over no structural works in Jošavka river basin. 1Item, Total: 49500USD
	Supervision over construction works in Krupa river in Višići settlement. 1Item, Total: 12656.25USD
	Supervision over construction works on Neretva river at Struge-Čapljina section. 1Items, Total: 9843.75USD
	Supervision over construction works on Spreča river in Gračanica settlement. 1Item, Total: 93750USD
	Supervision over construction works on Bosna river in Maglaj. 1Item, Total: 9839.25USD
	Supervision over construction works on Spreča river in Lukavac. 1Item, Total: 23906.25USD
	Supervision over construction works on Bosna river in Doboj. 1Item, Total: 21375USD
	Supervision over construction works on Bosna river in Modriča. 1Item, Total: 38587.5USD
	Supervision over construction works on Gomjenica river in Prijedor. 1Item, Total: 33975USD
22	Construction works in Jošavka river basin: - Erosion reduction on torrential watercourses e.g. gabion walls, sediment barriers etc.; the stabilization of excessively eroding river banks with vegetation cover and its root network; Planting of forest stripes in agricultural land; 1Item, Total: 841500USD
	Construction works in Krupa river in Višići settlement - Rehabilitation of the right defensive embankment on the Krupa River in Višići settlement. 1Item, Total: 240468USD
	Construction works on Neretva river at Struge-Čapljina section. - Flood deposit removal and rehabilitation of damaged banks of the Neretva River at the Struge-Čapljina section, 1Item, Total: 187031USD
	Construction works on Spreča river in Gračanica settlement - Completion of flood protection line on river Spreča in urban areas of Gračanica settlement in total length of 2.5 km. 1Item, Total 1781250USD
	Construction works on Bosna river in Maglaj - Completion of flood protection line on river Bosna in urban areas of Maglaj settlement in total length of 1.3 km. 1Item, Total: 187035USD
	Construction works on Spreča river in Lukavac - Completion of flood protection line on river Bosna in urban areas of Maglaj settlement in total length of 1.2 km. 1Item, Total: 454218USD
	Construction works on Bosna river in Doboj - Construction of a bank revetment on the left bank starting from the New-Japanese Bridge in Doboj towards downstream at a length of approximately 1,5 km. 1Item, Total: 406125USD
	Construction works on Bosna river in Modriča - Construction of protective structures in Dobor settlement: - Regulation of the main riverbed of the Bosna River at a length of 2,500 m - Construction of a protective embankment along the Bosna River at a length of 2,900 m - Construction of an embankment along the Dusa River with a length of 250 m and the structure on the mouth of the Dubokovac canal. 1Item, Total: 733162USD
	Construction works on Gomjenica river in Prijedor - Regulation of the canal of the Gomjenica River in the area of the City of Prijedor from the confluence with the Sana River and upstream at a length of approximately 4 km. 1Item, Total: 645525USD
23	Provision for contractual services of a Chief Technical Advisor (CTA) for the 6 years of the project. The total cost for the CTA is USD 464,000 for 580 days split across activities: activity 2.3.- 12% of time i.e. USD 55,680. 800USD @580Days, Total: 55680USD

	<p>TA from international expert in EbA to:</p> <ul style="list-style-type: none"> <li>- Develop methodology and guidance for undertaking risk assessment and appraisal of EbA measures, by adapting traditional risk assessment and appraisal methods for nature-based solutions,</li> <li>- To incorporate the full range of benefits generated by nature-based projects. review existing international technical specifications, standards and protocols for the design and implementation of nature-based structures and adapt and develop same for B&amp;H,</li> <li>- Develop performance standards as well as mechanisms for monitoring and measuring performance of effectiveness of EbA measures in reducing hazard or exposure in B&amp;H</li> </ul> <p>600USD @55Days, Total: 33000USD</p>
24	<p>Project officer; Total cost of USD 180,000 split across outputs: 25% of time devoted to output 2 - USD 45,000. 1Person, Total: 45000USD</p> <p>Project officer - DRR institutional expert; Total cost of USD 180,000 split across outputs: 25% of time devoted to output 2 - USD 45,000. 1Person, Total: 45000USD</p>
25	<p>National consultant in systems and technology for:</p> <ul style="list-style-type: none"> <li>- Develop a knowledge portal and common resource center to collect, collate and share knowledge and fill these gaps to advance uptake of nature-based solutions. 1Study, Total: 15000USD</li> </ul> <p>Undertake training for 30 staff from the ministries and water agencies in the methodology and guidance undertaking risk assessment and appraisal of EbA measure:</p> <ul style="list-style-type: none"> <li>- Eco-system analysis and evaluation; and eco-system valuation methods, and</li> <li>- Eco-system benefit assessment as part of CBA.3000USD @5Workshops, Total: 15000USD</li> </ul>
26	<p>International Institutional Capacity development and training expert to:</p> <ul style="list-style-type: none"> <li>- Develop and establish training curricula, and rosters of trainers.</li> <li>- ToT methodology;</li> <li>- Develop mechanisms for delivering long-term capacity development such as development of key partnerships with universities that can be forged to ensure long-term FRM training. 500USD @24Days, Total: 12000USD</li> </ul> <p>Gender Analysis and Action Plan revision. 500USD @16Days, Total: 8000USD</p> <p>Three community impact evaluations/surveys including design and validation of the programme-total value of USD 240,000 for 300 days split across output 2 and output 3 - 150 days to be devoted to output 2 i.e. USD 120,000. 800USD @300Days, Total: 120000USD</p>
27	<p>Travel costs: DSA and internal travel; local consultants inclusive of vehicle costs and DSA. 150USD @60Trips. Total: 9000USD</p>
28	<p>National company/NGO to develop and deliver an awareness raising campaign for:</p> <ul style="list-style-type: none"> <li>- Capacity building at municipal and community levels;</li> <li>- Networking and advocacy;</li> <li>- Country-wide media campaign on FRM and FFEWS. 1Item, Total: 40000USD</li> </ul>
29	<p>Deliver 3 sets of 3-day training curricula in the areas of:</p> <ul style="list-style-type: none"> <li>- Flood hazard and risk assessment, hydrometry, forecasting and modelling, EWSs - 40 participants;</li> <li>- Vulnerability and risk assessments - 50 participants;</li> <li>- River basin flood risk management planning and the use of climate information - 20 participants; 1Item, Total: 21000USD</li> </ul> <p>Capacity assessments of national and local state institutions: initial (baseline), mid-term and final. 30000USD @3Studies, Total: 90000USD</p>
30	<p>Mid-term and Terminal evaluation. 600USD @70Days, Total 42000USD</p> <p>Provision for contractual services of a Chief Technical Advisor (CTA) for the 6 years of the project. The total cost for the CTA is USD 464,000 for 580 days split across activities: activity 3.1.- 11% of time i.e.USD 51,040. 800USD @580Days, Total: 51040USD</p>
31	<p>National Consultant to support international consultant in climate risk financing to:</p> <ul style="list-style-type: none"> <li>- Develop sector-specific approaches for the private sector engagement in the climate resilience. Identify public-private partnerships, and develop strategies, plans, projects and implementation plans for PPPs. 300USD @70Days, Total: 21000USD</li> </ul>

	National legal and policy expert to: - Establish a connection between micro-insurance and microfinance; review and identify changes required to the current regulations to enable micro-insurance product development Identify and develop concept for micro-insurance products for microfinance sector. 300USD @110Days, Total: 33000USD
	National socio-economics expert for: - Development of unified methodology for undertaking cost-benefit analysis and CBA of FRM interventions and investment planning - Extension of the socio-economic GIS-based damage and loss modelling tool to include CBA of FRM interventions. - Develop and deliver a training programme on the new socio-economic GIS-based damage and loss modelling tool.300USD @68Days, Total: 20400USD
	National gender expert to ensure gender to ensure gender responsiveness in regulatory and policy framework. 250USD @36Days, Total: 9000USD
	National legal and policy expert to: - Strengthen the regulatory framework to ensure policies, laws, and regulations create an enabling environment for private sector investment in adaptation; Strengthening governance by bringing together private, public and civil society actors to mainstream climate change adaptation in their decision-making processes and develop partnerships and collaborations. - Establish a connection between micro-insurance and microfinance; review and identify changes required to the current regulations to enable micro-insurance product development Identify and develop concept for micro-insurance products for microfinance sector. 300USD @20Days, Total: 6000USD
32	Deliver training in the areas of risk financing and transfer mechanisms for at least 80 representatives of financial institutions and financiers, including micro-financing institutions and insurance sectore practitioners. 5000USD @5Workshops. Total: 25000USD
33	International consultant in climate risk financing to: - Working with the relevant priority public and private sectors develop the relevant sector resilience strategies and plans for long-term ongoing FRM investment frameworks for each (at least three) sector. - Develop a strategy and tools for private sector engagement in long-term climate-proof risk management; - Develop a strategy and plan and provide technical assistance to financial institutions to mainstream climate change risks into their business models to manage the effects. - Development of risk financing and risk transfer mechanisms strategy to include private sector engagement strategy for long-term implementation of risk financing and risk transfer mechanisms for entity-level flood risk financing and resilience strategy including incentivization mechanisms for enhancing access to finance to improve the risk-reward profile of private sector investment in climate change adaptation; - Identification or public-sector risk financing mechanisms for flood risk management; - Identify and develop Risk financing and transfer mechanisms products and tools, based on detailed socio-economic risk, damages and losses assessment;1Item, Total: 140000USD
	International Consultant in Insurance to: - Undertake feasibility studies of all identified and shortlisted risk financing mechanisms based on Vrbas project, development of flood insurance models for the assessment of premiums and payouts of flood events of different return periods; - Provide technical assistance to financial institutions and financiers, including mirco-financing institutions, for the development of lending products to mainstream the use of climate-risk information into their lending processes that maximizes performance and minimizes risks and to provide loans to climate responsive/resilient enterprises in B&H - Undertake a feasibility study into the introduction of micro-insurance for agricultural producers, entrepreneurs and small and medium-sized enterprises in different industries. - Undertake feasibility study for creating a regional disaster risk insurance micro-insurance program to increase the degree of diversification of risk. - Undertake feasibility of issuing catastrophe bonds to transfer disaster risk to the capital market.. - Identification of potential sector-specific natural disaster (including floods) insurance product packages for insurance in each of the defined sectors, based on studies to estimate cost-benefit, 1Item, Total: 133000USD
34	International consultant to undertake: - Identification of financing models for investment maintenance costs (e.g. of community-based scheme that involve the use of tariffs or in-kind contributions to establish municipal maintenance programmes or engagement of private sector in infrastructure maintenance financing); 500USD @20Days, Total: 10000USD
	Three community impact evaluations/surveys including design and validation of the programme-total value of USD 240,000 for 300 days split across output 2 and output 3 - 150 days to be devoted to output 3 i.e. USD 120,000. 800USD @300Days, Total: 120000USD

35	National socio-economics expert for: - Technical assistance to government in identifying and prioritising flood risk financing using CBA tool; Embedded CBA tools in municipality as a standardised requirement for developing annual infrastructure investment plans. 300USD @30Days, Total: 9000USD
	National gender expert to ensure gender responsiveness in development of investment plans and preparedness plans. 250USD @24Days, Total: 6000USD
36	Project officer - DRR institutional expert; Total cost of USD 180,000 split across outputs: 25% of time devoted to output 3 - USD 45,000.
	Project officer; Total cost of USD 180,000 split across outputs: 25% of time devoted to output 3 - USD 45,000
37	National consultant for formulate multi-year climate resilient municipal investment plan and gender sensitive community preparedness plan implemented in the highest risk municipalities (10-12) and 1 canton, based on risk-informed project designs, including maintenance, and costs-benefit analysis based on CBA methods and models.1Item, Total: 100000USD
	National consultant for technical assistance to support the development of community preparedness plans for the most vulnerable 10-12 communities in target basins, (excluding Vrbas) in line with the procedure, methodology and content of CFEP in B&H as defined by Law of Protection and Rescue in RS and FB&H including cantons. 1Item, Total: 100000USD
	Capacity assessments of national and local state institutions: initial (baseline), mid-term and final. 30000USD @3Studies, Total 90000USD
38	Implementation of ESMF and development and implementation of site specific environmental and social safeguards plan, adressing grievances. 500USD @250Days, Total: 125000USD
39	Detailed design of climate resilient flood protection measures - Undertake climate proofing of detailed design of proposed structural and non-structural measures. 1Items, Total: 750280USD
40	Safeguard officer 100%. 1Person, Total: 180000USD
	Project officer; Total cost of USD 180,000 split across outputs: 25% of time devoted to output 4 - USD 45,000. 1Person, Total: 45000USD
	Project officer - DRR institutional expert; Total cost of USD 180,000 split across outputs: 25% of time devoted to output 4 - USD 45,000. 1Person, Total: 45000USD
	Project manager 100% 1Person, Total: 205000USD
	Project assistant 100%. 1Person, Total: 123000USD
41	Travel costs related to project management.160USD @150Trips, Total: 24000USD
42	Telephone and internet services 183.33USD @60Months, Total: 11000USD
43	5 laptops, 1800USD @5items, Total: 9000USD
44	Office supplies. 1500USD @6Years, Total: 9000USD
45	Electricity and communal services. 400USD @60Months, Total: 24000USD
46	Inception and Final Workshop. 2500USD @2Workshops, Total: 5000USD
47	40% of the energy and environment sector leader (NOC), total of USD 115,200 20% of Programme Analyst (NOB) - total of USD 50,400

48	40% of the energy and environment sector associate (GS7), total of USD 84,000 15% of Personnel officer (GS6) - total of 27,000 15% of Procurement officer (GS6) - total of USD 23,400
Co-F 1 - 2	Improvement of hydrometric network - under activity 1.1 co-financing will be provided by Ministry of Agriculture, Forestry and Water Management of RS (USD 504,312), Water Agencies for Sava (688,222) and Adriatic River Basin (USD 909,048) and HPP (USD 774.384); Total: 2,869,966 USD
	Development of flood risk and flood hazard maps, development and implementation of the socio-economic flood risk and vulnerability modelling tool - under activity 1.2 co-financing will be provided by MoFTER (USD 2,669,312) Water Agencies for Sava (USD 400,000) and Adriatic River Basin (USD 727,460) and HPP (731,983); Total: 4,528,756 USD
	Development of CBEWS and FFEWS - under activity 1.3 co-financing will be provided by Ministry of Agriculture, Forestry and Water Management of RS (USD 255,438), Water Agencies for Sava (USD 200,000) and Adriatic River Basins (USD 500,000) and HPP (USD 1,000,000); Total: 1,955,438 USD
	Development of SOP on data management for flood risk management - under activity 1.4 co-financing will be provided by Water Agency for Adriatic River Basin (USD 200,000); Total: 200,000 USD
Co-F 3 - 4	Enhancing the existing legislative and regulatory FRM framework by mainstreaming the climate-induced flood risk management into sectoral planning - under activity 2.1 co-financing will be provided by Ministry of Spatial Planning, Civil Engineering and Ecology (USD 90,000); Total: 90,000 USD
	Implementation of flood risk reduction measures in B&H - under activity 2.2 co-financing will be provided by Ministry of Agriculture, Forestry and Water Management of RS (USD 2,010,621), Water Agencies for Sava (USD 13,755,873) and Adriatic River Basin (USD 2,225,397) and HPP (USD 2,255,538); Total: 20,247,428 USD
	Enhancing EbA solutions into policies and regulations - under activity 2.3 co-financing will be provided by Ministry of Spatial Planning, Civil Engineering and Ecology, (USD 90,000); Total: 90,000 USD
	Capacity development for flood risk management - under activity 2.4 co-financing will be provided by Ministry of Agriculture, Forestry and Water Management of RS (USD 100,000) and Water Agencies for Sava (USD 200,000) and Adriatic River Basins (USD 200,000); Total: 500,000 USD
Co-F 5 - 8	Develop the most appropriate mechanisms for risk transfer, risk financing and supporting cost recovery mechanisms from a variety of sources - under activity 3.1 co-financing will be provided by Association of Insurance Companies in FB&H (USD 285,714) and Re-insurance company Bosna RE (USD 317,460); Total: 603,174 USD
	Development of climate resilient municipal investment plans and gender sensitive community preparedness plans - under activity 3.2 co-financing will be provided by MoFTER (USD 2,621,693) and UNDP (476,190); Total: 3,097,884 USD
	Implementation, monitoring and evaluation of flood risk reduction measures in B&H - under activity 3.3 co-financing will be provided by Ministry of Agriculture, Forestry and Water Management of RS (USD 833,333 from own resources + USD 20,105,820 from EIB loan); Total: 20,939,153 USD
Co-F 9, 11, 12	Logistic and administrative support to project activities - co-financing will be provided by all contributing co-financiers; Total: 2,843,280 USD
Co-F 10	Logistic and administrative support to project activities; Total: 323,810 USD

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## **XI. LEGAL CONTEXT**

136. This project document shall be the instrument referred to as such in Article 1 of the Standard Basic Assistance Agreement between the Government of Bosnia and Herzegovina and UNDP, signed on 07 December 1995. All references in the SBAA to “Executing Agency” shall be deemed to refer to “Implementing Partner.”

137. The B&H and the UN Sustainable Development Cooperation Framework (UNSDCF) for the period 2021-2025 (signed by the Council of Ministers of Bosnia and Herzegovina and UN on 20 May 2021), as well as the current UNDP Country Programme Document 2021-2025 represent the basis for the activities of UNDP in the country.

138. This project will be implemented by UNDP (“Implementing Partner”) in accordance with its financial regulations, rules, practices and procedures only to the extent that they do not contravene the principles of the Financial Regulations and Rules of UNDP. Where the financial governance of an Implementing Partner does not provide the required guidance to ensure best value for money, fairness, integrity, transparency, and effective international competition, the financial governance of UNDP shall apply.

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## **XII. RISK MANAGEMENT**

139. UNDP as the Implementing Partner will comply with the policies, procedures and practices of the United Nations Security Management System (UNSMS.)

140. UNDP as the Implementing Partner will undertake all reasonable efforts to ensure that none of the project funds are used to provide support to individuals or entities associated with terrorism, that the recipients of any amounts provided by UNDP hereunder do not appear on the United Nations Security Council Consolidated Sanctions List, and that no UNDP funds received pursuant to the Project Document are used for money laundering activities. The United Nations Security Council Consolidated Sanctions List can be accessed via <https://www.un.org/securitycouncil/content/un-sc-consolidated-list>. This provision must be included in all sub-contracts or sub-agreements entered into under this Project Document.

141. Social and environmental sustainability will be enhanced through application of the UNDP Social and Environmental Standards (<http://www.undp.org/ses>) and related Accountability Mechanism (<http://www.undp.org/secu-srm>).

142. UNDP as the Implementing Partner will: (a) conduct project and programme-related activities in a manner consistent with the UNDP Social and Environmental Standards, (b) implement any management or mitigation plan prepared for the project or programme to comply with such standards, and (c) engage in a constructive and timely manner to address any concerns and complaints raised through the Accountability Mechanism. UNDP will seek to ensure that communities and other project stakeholders are informed of and have access to the Accountability Mechanism.

143. In the implementation of the activities under this Project Document, UNDP as the Implementing Partner will handle any sexual exploitation and abuse (“SEA”) and sexual harassment (“SH”) allegations in accordance with its regulations, rules, policies, and procedures.

144. All signatories to the Project Document shall cooperate in good faith with any exercise to evaluate any programme or project-related commitments or compliance with the UNDP Social and Environmental Standards. This includes providing access to project sites, relevant personnel, information, and documentation.

145. UNDP as the Implementing Partner will ensure that the following obligations are binding on each responsible party, subcontractor and sub-recipient:

- a. Consistent with the Article III of the SBAA *[or the Supplemental Provisions to the Project Document]*, the responsibility for the safety and security of each responsible party, subcontractor and sub-recipient and its personnel and property, and of UNDP's property in such responsible party's, subcontractor's and sub-recipient's custody, rests with such responsible party, subcontractor and sub-recipient. To this end, each responsible party, subcontractor and sub-recipient shall:
  - i. put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried;
  - ii. assume all risks and liabilities related to such responsible party's, subcontractor's and sub-recipient's security, and the full implementation of the security plan.
- b. UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of the responsible party's, subcontractor's and sub-recipient's obligations under this Project Document.
- c. Each responsible party, subcontractor and sub-recipient (each a "sub-party" and together "sub-parties") acknowledges and agrees that UNDP will not tolerate sexual harassment and sexual exploitation and abuse of anyone by the sub-parties, and other entities involved in Project implementation, either as contractors or subcontractors and their personnel, and any individuals performing services for them under the Project Document.
  - (a) In the implementation of the activities under this Project Document, each sub-party shall comply with the standards of conduct set forth in the Secretary General's Bulletin ST/SGB/2003/13 of 9 October 2003, concerning "Special measures for protection from sexual exploitation and sexual abuse" ("SEA").
  - (b) Moreover, and without limitation to the application of other regulations, rules, policies and procedures bearing upon the performance of the activities under this Project Document, in the implementation of activities, each sub-party, shall not engage in any form of sexual harassment ("SH"). SH is defined as any unwelcome conduct of a sexual nature that might reasonably be expected or be perceived to cause offense or humiliation, when such conduct interferes with work, is made a condition of employment or creates an intimidating, hostile or offensive work environment. SH may occur in the workplace or in connection with work. While typically involving a pattern of conduct, SH may take the form of a single incident. In assessing the reasonableness of expectations or perceptions, the perspective of the person who is the target of the conduct shall be considered.
- d. In the performance of the activities under this Project Document, each sub-party shall (with respect to its own activities), and shall require from its sub-parties (with respect to their activities) that they, have minimum standards and procedures in place, or a plan to develop and/or improve such standards and procedures in order to be able to take effective preventive and investigative action. These should include: policies on sexual harassment and sexual exploitation and abuse; policies on whistleblowing/protection against retaliation; and complaints, disciplinary and investigative mechanisms. In line with this, sub-parties will and will require that their respective sub-parties will take all appropriate measures to:
  - (i) Prevent its employees, agents or any other persons engaged to perform any services under this Project Document, from engaging in SH or SEA;
  - (ii) Offer employees and associated personnel training on prevention and response to SH and SEA, where sub-parties have not put in place its own training regarding the prevention of SH and SEA, sub-parties may use the training material available at UNDP;



(iii) Report and monitor allegations of SH and SEA of which any of the sub-parties have been informed or have otherwise become aware, and status thereof;

(iv) Refer victims/survivors of SH and SEA to safe and confidential victim assistance; and

(v) Promptly and confidentially record and investigate any allegations credible enough to warrant an investigation of SH or SEA. Each sub-party shall advise UNDP of any such allegations received and investigations being conducted by itself or any of its sub-parties with respect to their activities under the Project Document, and shall keep UNDP informed during the investigation by it or any of such sub-parties, to the extent that such notification (i) does not jeopardize the conduct of the investigation, including but not limited to the safety or security of persons, and/or (ii) is not in contravention of any laws applicable to it. Following the investigation, the relevant sub-party shall advise UNDP of any actions taken by it or any of the other entities further to the investigation.

- e. Each sub-party shall establish that it has complied with the foregoing, to the satisfaction of UNDP, when requested by UNDP or any party acting on its behalf to provide such confirmation. Failure of the relevant sub-party to comply of the foregoing, as determined by UNDP, shall be considered grounds for suspension or termination of the Project.
- f. Each responsible party, subcontractor and sub-recipient will ensure that any project activities undertaken by them will be implemented in a manner consistent with the UNDP Social and Environmental Standards and shall ensure that any incidents or issues of non-compliance shall be reported to UNDP in accordance with UNDP Social and Environmental Standards.
- g. Each responsible party, subcontractor and sub-recipient will take appropriate steps to prevent misuse of funds, fraud, corruption or other financial irregularities, by its officials, consultants, subcontractors and sub-recipients in implementing the project or programme or using the UNDP funds. It will ensure that its financial management, anti-corruption, anti-fraud and anti-money laundering and countering the financing of terrorism policies are in place and enforced for all funding received from or through UNDP.
- h. The requirements of the following documents, then in force at the time of signature of the Project Document, apply to each responsible party, subcontractor and sub-recipient: (a) UNDP Policy on Fraud and other Corrupt Practices (b) UNDP Anti-Money Laundering and Countering the Financing of Terrorism Policy; and (c) UNDP Office of Audit and Investigations Investigation Guidelines. Each responsible party, subcontractor and sub-recipient agrees to the requirements of the above documents, which are an integral part of this Project Document and are available online at [www.undp.org](http://www.undp.org).
- i. In the event that an investigation is required, UNDP will conduct investigations relating to any aspect of UNDP programmes and projects. Each responsible party, subcontractor and sub-recipient will provide its full cooperation, including making available personnel, relevant documentation, and granting access to its (and its consultants', subcontractors' and sub-recipients') premises, for such purposes at reasonable times and on reasonable conditions as may be required for the purpose of an investigation. Should there be a limitation in meeting this obligation, UNDP shall consult with it to find a solution.
- j. Each responsible party, subcontractor and sub-recipient will promptly inform UNDP as the Implementing Partner in case of any incidence of inappropriate use of funds, or credible allegation of fraud, corruption or other financial irregularities with due confidentiality.

Where it becomes aware that a UNDP project or activity, in whole or in part, is the focus of investigation for alleged fraud/corruption, each responsible party, subcontractor and sub-recipient will inform the UNDP Resident Representative/Head of Office, who will promptly inform UNDP's Office of Audit and Investigations (OAI). It will provide regular updates to the head of UNDP in the country and OAI of the status of, and actions relating to, such investigation.

- k. UNDP will be entitled to a refund from the responsible party, subcontractor or sub-recipient of any funds provided that have been used inappropriately, including through fraud, corruption or other financial irregularities, or otherwise paid other than in accordance with the terms and conditions of this Project Document. Such amount may be deducted by UNDP from any payment due to the responsible party, subcontractor or sub-recipient under this or any other agreement. Recovery of such amount by UNDP shall not diminish or curtail any responsible party's, subcontractor's or sub-recipient's obligations under this Project Document.

Where such funds have not been refunded to UNDP, the responsible party, subcontractor or sub-recipient agrees that donors to UNDP (including the Government) whose funding is the source, in whole or in part, of the funds for the activities under this Project Document, may seek recourse to such responsible party, subcontractor or sub-recipient for the recovery of any funds determined by UNDP to have been used inappropriately, including through fraud, corruption or other financial irregularities, or otherwise paid other than in accordance with the terms and conditions of the Project Document.

Note: The term "Project Document" as used in this clause shall be deemed to include any relevant subsidiary agreement further to the Project Document, including those with responsible parties, subcontractors and sub-recipients.

- l. Each contract issued by the responsible party, subcontractor or sub-recipient in connection with this Project Document shall include a provision representing that no fees, gratuities, rebates, gifts, commissions or other payments, other than those shown in the proposal, have been given, received, or promised in connection with the selection process or in contract execution, and that the recipient of funds from it shall cooperate with any and all investigations and post-payment audits.
- m. Should UNDP refer to the relevant national authorities for appropriate legal action any alleged wrongdoing relating to the project or programme, the Government will ensure that the relevant national authorities shall actively investigate the same and take appropriate legal action against all individuals found to have participated in the wrongdoing, recover and return any recovered funds to UNDP.
- n. Each responsible party, subcontractor and sub-recipient shall ensure that all of its obligations set forth under this section entitled "Risk Management" are passed on to its subcontractors and sub-recipients and that all the clauses under this section entitled "Risk Management Standard Clauses" are adequately reflected, *mutatis mutandis*, in all its sub-contracts or sub-agreements entered into further to this Project Document.

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### **XIII. MANDATORY ANNEXES**

Annex A: GCF Specific Conditions, Representations, Warranties and Covenants

Annex B: GCF Board-approved Funding Proposal

Annex D: Co-financing commitment letters of co-financing (from the project design stage)

Annex E: Timetable of project implementation

Annex F: Procurement plan

Annex G: Terms of References for Project Board and Project Team TORs

Annex H: UNDP Social and Environmental Screening Procedure (SESP) (to be completed in UNDP Quantum+ and the printout to be attached to the project document)

Annex I: Environmental and Social Management Plan or Framework (ESMP or ESMF), as relevant

Annex J: Stakeholder Engagement Plan (including summary of consultations)

Annex K: Gender Analysis and Action Plan

Annex L: UNDP Risk Register

Annex P: UNDP Project Quality Assurance Report (to be completed in UNDP Quantum+ and the printout to be attached to the project document)

Annex Q: Monitoring Activity Table

Annex R: On-Granting Provisions Applicable to the Implementing Partner

Annex S: Other annexes included in the Funding Proposal annex package approved by the GCF Board (to the extent that they are not confidential as indicated in the disclosure form submitted to the GCF)

### **Annex A: GCF Specific Conditions, Representation, Warranties and Covenants**

(i) The Implementing Partner hereby expressly agrees, and shall ensure that each of its responsible parties, their respective sub-recipients and other entities involved in Project Implementation, either as contractors or subcontractors and any individuals performing services for them under the Project Document agrees, to comply with the following Project Specific Conditions: as stipulated in the FAA at Annex S: Other annexes included in the Funding Proposal annex package approved by the GCF Board.

(ii) The Implementing Partner hereby expressly represents and warrants, and shall ensure, where applicable, that each of its responsible parties, their respective sub-recipients and other entities involved in Project Implementation, either as contractors or subcontractors and any individuals performing services for them under the Project Document represents and warrants, that: as stipulated in the FAA at Annex S: Other annexes included in the Funding Proposal annex package approved by the GCF Board.

(iii) The Implementing Partner hereby expressly covenants, and shall ensure, where applicable, that each of its responsible parties, their respective sub-recipients and other entities involved in Project Implementation, either as contractors or subcontractors and any individuals performing services for them under the Project Document covenants, that: as stipulated in the FAA at Annex S: Other annexes included in the Funding Proposal annex package approved by the GCF Board.

The Implementing Partner agrees that any non-compliance of the Project Specific Conditions under item (i), representation and warranties provided under item (ii) and/or the covenants set out in item (iii) above shall be deemed a breach of the obligations of the Implementing Partner under this Project Document.

**Annex B: GCF Board-approved Funding Proposal**

(This can be a link to the approved proposal on the GCF website)

<https://www.greenclimate.fund/document/scaling-climate-resilient-flood-risk-management-bosnia-and-herzegovina-0>

**Annex D: Co-financing commitment letters of co-financing**



Sarajevo, 26<sup>th</sup> April 2024

Dear Ms. Bennet,

**Subject: UNDP Country Office Bosnia and Herzegovina co-financing statement in regard to the GCF Funding Proposal „Scaling up Climate Resilient Flood Risk Management in Bosnia and Herzegovina“**

UNDP Country Office Bosnia and Herzegovina would like to express our full support to the GCF Funding Proposal „Scaling up Climate Resilient Flood Risk Management in Bosnia and Herzegovina“.

With this letter, we would like to confirm our commitment to co-finance the aforementioned project in the amount of USD 800,000 over the period 2024-2030 as follows:

- Contribution in the amount of USD 500,000 will be to strengthen climate resilience of the local governments (Activity 3.2 of the Funding Proposal) via Joint Swiss-UN Programme “Disaster Risk Reduction for sustainable development in Bosnia and Herzegovina – Phase II”
- The amount of USD 300,000 of trac funds is planned to cover project management costs.

For any additional information kindly contact my colleague Raduška Cupać, Energy and Environment Sector Leader ([raduska.cupac@undp.org](mailto:raduska.cupac@undp.org)).

Sincerely,

A handwritten signature in blue ink, appearing to read 'Narine Sahakyan'.

Narine Sahakyan

Resident Representative a.i.

**To: Nancy Bennet**  
Executive Coordinator and Director – Environmental Finance a.i.  
Vertical Funds Programming Support, Oversight and Compliance Unit  
Bureau for Policy and Programme Support



**REPUBLIC OF SRPSKA**  
**MINISTRY OF AGRICULTURE, FORESTRY AND WATER MANAGEMENT**  
Trg Republike Srpske 1, Banja Luka, tel: 051/338-368; 338-415; www.vladars.rs, E-mail: [mps@mps.vladars.rs](mailto:mps@mps.vladars.rs)

Ref No: 12.07-337-176/24

Date: 24 April 2024

**Nancy Bennet**

**Executive Coordinator and Director – Environmental Finance a.i.  
Vertical Funds Programming Support, Oversight and Compliance Unit  
Bureau for Policy and Programme Support**

**Subject:** Letter of support, delivering

Dear Ms. Bennet,

Ministry for Agriculture, Forestry and Water Management of Republika Srpska (hereinafter referred to as the Ministry) express its support to the project "Scaling-up Climate Resilient Flood Risk Management in Bosnia and Herzegovina" which has been submitted to Green Climate Fund (GCF) by UNDP and its currently under review by GCF. This project is fully aligned with Ministry's strategic goals in the field of water management and flood risk reduction.

Herewith, we would like to confirm our readiness to co-finance the above project during the period 2024-2030. Our contribution in the amount of Eur 22,5 Million will be used to co-finance the below activities, as described in the project proposal:

- Activity 1.1: Upgrade and expand the coverage of the hydrometric network for enhanced monitoring of climate variables in Category I catchments and torrential streams
- Activity 1.3: Develop an integrated impact-based centralized and community-based flood forecasting and early warning system (FFEWS)
- Activity 2.2: Implement and mainstream new ecosystem-based flood risk reduction and climate change adaptation methods
- Activity 2.4: Review and strengthen institutional capacity and develop long-term institutional capacity development plans for climate resilient FRM



- Activity 3.3: Implement climate-proof structural flood risk reduction and anti-erosion interventions in Vrbas, Una-Sana, Bosna and Drina river basins

Our total co-financing contribution is Eur 22.5 Million and the above support will be conditional upon securing GCF support, as indicated in GCF funding proposal.

The co-financed activities will be undertaken in full compliance with the Ministry's policies and procedures. However, because the activities are included in the results of the project, the Ministry commits to monitor these activities consistent with the UNDP Project Document, including Environmental and Social Assessment Report and Environmental and Social Management Plan. The Project Board and UNDP will also assume and oversight and assurance role to further ensure the project, including the co-financed activities covered by this letter, remains consistent with UNDP policies and procedures. These arrangements will be confirmed through official adoption of the Project document by the Government of Republika Srpska, following its approval by GCF.

Sincerely,



BOSNA I HERCEGOVINA  
MINISTARSTVO VANJSKE  
TRGOVINE I EKONOMSKIH ODNOSA



БОСНА И ХЕРЦЕГОВИНА  
МИНИСТАРСТВО СПОЉНЕ ТРГОВИНЕ  
И ЕКОНОМСКИХ ОДНОСА

BOSNIA AND HERZEGOVINA  
MINISTRY OF FOREIGN TRADE AND  
ECONOMIC RELATIONS

No: 01-50-3701 /24  
Sarajevo, 25 September, 2024

**Nancy Bennet**  
**Executive Coordinator, ad interim (A.I)**  
**Vertical Fund Programme Support, Oversight and**  
**Compliance Unit (Vertical Fund Hub),**  
**Bureau for Policy and Programme Support (BPPS)**  
**The Green Climate Fund (GCF)**

**Subject:** Co- financing letter for the Project „Scaling up climate resilient flood risk management in Bosnia and Herzegovina“

Dear Mrs. Benent,

Ministry of Foreign Trade and Economic Relations expresses its full support to the project proposal “Scaling up climate resilient flood risk management in Bosnia and Herzegovina” which has been approved by the Green Climate Fund in October 2023.

The Project is fully aligned with Bosnia and Herzegovina (B&H) strategic objectives and will provide significant contribution to:

- Implementation of strategic and planning documents in B&H;
- Fulfilling EU accession obligations;
- Strengthening institutional capacities;
- Creating pre-condition for sustainable development and improving quality of life.

Herewith, we would like to express our readiness to co-finance the above project during its duration (2024-2030) in the amount of 5 million Euros, which will be used to co-finance the below outputs, as described in the Project document:

- 1: Fully integrated impact-based Flood Forecasting and EWS facilitates timely preparation and response*
- 3: Climate-proof flood protection measures scaled-up through new and improved national and local investment frameworks increasing resilience of the most vulnerable groups to climate induced flooding*

---

Musala 9, 71 000 Sarajevo, tel: +387 33 220 093 факс: +387 33 220 091  
Musala 9, 71 000 Sarajevo, tel: +387 33 220 093 faks: +387 33 220 091  
[www.mvteo.gov.ba](http://www.mvteo.gov.ba)

The above support will be conditional upon securing GCF finances, as indicated in the GCF funding proposal.

Respectfully,

**MINISTER**  
  
**Stasa Kosarac**



---

Musala 9, 71 000 Sarajevo, тел: +387 33 220 093 факс: +387 33 220 091  
Musala 9, 71 000 Sarajevo, tel: + 387 33 220 093 faks: +387 33 220 091  
[www.mvteo.gov.ba](http://www.mvteo.gov.ba)



AGENCIJA ZA  
VODNO PODRUČJE JADRANSKOG MORA  
MOSTAR

Dr. Ante Starčevića bb  
88000 Mostar  
Bosna i Hercegovina

Tel: ++387 36 397-881; 397-882

Fax: ++387 36 397-883

To: **Mr. Pradeep Kurukulasuriya,**  
**Director and Executive Coordinator, Nature, Climate and Energy**  
**United Nations Development Program (UNDP) and the Green Climate Fund.**

Ref. no.:21-1/45-1-133/24

Date: 14.2.2024. y.

Dear Mr. Pradeep Kurukulasuriya,

Water Agency for Adriatic Sea Watershed (hereinafter referred to as an Agency) is in charge of the water management in the following river basins: Neretva, Cetina and Krka within the Federation of Bosnia and Herzegovina. Activities the Agency is conducting are, but not limited to:

- organization, gathering, management and distribution of data on water resources including establishing and maintenance of the water information system;
- hydrological monitoring and water quality monitoring, monitoring of ecological status of surface waters, monitoring of underground waters, preparation of reports on water status and recommendation of necessary measures.
- preparation of water management plans for the relevant river basin, development of the technical documentation for various areas of water management and other affairs related to the water management and as prescribed by the Law;
- preparation of plans for preventing and reducing adverse water effects caused by floods, draughts, erosion and organization of the implementation of these plans;
- implementation of activities related to projects financed by international institution, as well as those financed by the Federation of Bosnia and Herzegovina budget.

With this Letter, the Agency would like to demonstrate its support to the project proposal "Scaling up climate resilient flood risk management" which is to be submitted to the Green Climate Fund by UNDP, and is aligned with Agency's strategic objectives.

We would like to confirm our readiness to co-finance the above project during the period 2024-2030, and in line with the above activities conducted by the Agency. Our contribution in the amount of USD 5 million will be used to co-finance the below activities, as described in the project proposal:

Activity 1.1: Expansion of the hydrometric network for enhanced monitoring of climate variables

Activity 1.2: Enhancing climate-induced hydrological and hydraulic modelling for determining flood hazard and risk in line with Flood directive;

Activity 1.3 and 1.4: Developing flood forecasting and early warning system, including flow forecasting and implementation of protocol and Standard operational procedures for data gathering and analysis;

Activity 2.2: Implementation and scaling-up of non-structural flood risk reduction and climate change adaptation measures;

Activity 2.4: Capacity building.

The above support will be conditional upon securing GCF support, as indicated in the GCF funding proposal.

Sincerely



DIRECTOR

Damir Mrđen

To:

1. Adresse
2. 21-1, 24-1, 25-1, 10-1
3. 3/a

Registracija agencije:  
Općinski sud u Mostaru  
Registracijski broj:  
Tt-O-919/07

Identifikacijski broj:  
4227123060007

Korisnička banka i broj računa:  
Unikredit Zagrebačka banka BH d.d. Mostar  
Broj računa: 338-100-22003965-22



"AGENCIJA ZA VODNO PODRUČJE RIJEKE SAVE"  
SARAJEVO



"SAVA RIVER WATERSHED AGENCY"  
SARAJEVO

Adresa: **Ul. Hamdije Čemerlića 39 a**  
71000 Sarajevo  
<http://www.voda.ba>

tel. +387 33 726 400  
fax. +387 33 726 423  
e – mail: [info@voda.ba](mailto:info@voda.ba)

**To: Mr. Pradeep Kurukulasuriya**  
**Director and Executive Coordinator,**  
**Nature, Climate and Energy**  
**Nations Development Program (UNDP)**  
**and the Green Climate Fund (GCF)**

Naš znak/Our ref.: **10 – 166 – 1 / 24**

Vaš znak/Your ref.:

Datum /Date, 06.02.2024. godine

**PREDMET:** Letter of the support to the project proposal, delivered

Dear Mr. Kurukulasuriya,

Water Agency for Sava River Basin (hereinafter referred to as the Agency), Sarajevo manages watershed which covers part of the international Danube river basin (part related to Sava international sub-river basin) located on the territory of Federation of Bosnia and Herzegovina.

The Agency would like, via this Letter, to express its support to the project proposal "Scaling up climate resilient flood risk management" which is to be submitted to the Green Climate Fund by UNDP, and is aligned with Agency's strategic objectives.

Herewith, we would like to confirm our readiness to co-finance the above project during the period 2020-2026, in line with the Agency's authorities as indicated in Law on Waters (Official Gazette of Federation Bosnia and Herzegovina no. 70 of 20 Nov 2006). Our contribution in the amount of USD 16 million will be used to co-finance the below activities, as described in the project proposal:

- Expansion of the hydrometric network for enhanced monitoring of climate variables
- Enhancing hydrological and hydraulic modelling, taking into consideration climate changes, for determining flood hazard and risk
- Developing flood forecasting and early warning system, with development and implementation of protocol and Standard operational procedures for data gathering and analysis
- Implementation and scaling-up of non-structural flood risk reduction measures
- Implementation of flood risk reduction measures in urban areas
- Capacity building.

The above support will be conditional upon securing GCF support, as indicated in the GCF funding proposal.

Respectfully,

DIRECTOR  
 Sejad Delić, dipl.inž.

Delivered:

- Title,
- Sector 10, 30,
- a/a

BOSNA REOSIGURANJE Dioničko društvo  
BOSNA REINSURANCE Company Limited

Zmaja od Bosne 74; 71000 Sarajevo  
Bosna i Hercegovina  
tel: +387 33 72 55 00  
fax: +387 33 72 55 22  
e-mail: info@bosnare.ba  
web: www.bosnare.ba



**To: Mr. Pradeep Kurukulasuriya**  
**Director and Executive Coordinator**  
**Nature, Climate and Energy UNDP**  
**and Green Climate Fund**

Sarajevo, 05.02.2024.  
Our Ref.: 317/24

Dear Mr. Pradeep Kurukulasuriya,

Bosna Reinsurance Company Limited (Bosna Reosiguranje d.d., Bosna RE for short) is a reinsurance company incorporated under the respective laws of Bosnia and Herzegovina. We are authorized to write inward and outward reinsurance treaties and are fully privately owned by 64 shareholders (stand as at 31.12.2023).

Bosna RE was established in 1978 and now is in its 46th year of operation. We are the only financial institution in Bosnia and Herzegovina with its own sovereign rating, Good B+ with stable outlook, assigned to us by reputable rating agency A.M. Best for the 16<sup>th</sup> time in 2023.

Nature of our business encompass risk assessment, risk prevention and risk transfer as some of our main interests and improvement in this segment along with potential benefits for the society are highly on our agenda.

By the virtue of this Letter we wish to express our support for the "Scaling up climate resilient flood risk management" which is to be submitted to the Green Climate Fund by UNDP and is aligned with our business objectives.

Thus, we would like to confirm our readiness to co-finance the above project during the period 2024-2030. Our contribution of approximately EUR 300,000 will be used to co-finance the following activities described in the project document:

- Activity 3.1: Development of a national investment framework for climate induced floods risk reduction and management including provisions for private sector engagement in climate risk financing and for risk transfer mechanisms.

The above support will be conditional upon securing GCF support, as indicated in the GCF funding proposal.

Sincerely,

**Zlatan Filipović**  
**Director**  
**Bosna Reinsurance Co. Ltd.**



Društvo je registrovano kod Općinskog suda Sarajevo, Rješenje br. 065-0-Reg-18-002887  
Trn: 1610000004490044 Raiffeisen Bank d.d. Sarajevo  
Trn: 1540011100374760 Intesa Sanpaolo Banka d.d. Sarajevo  
ID br: 4200066680006 PDV br: 200066680006



UDRUŽENJE DRUŠTAVA ZA OSIGURANJE  
U FEDERACIJI BOSNE I HERCEGOVINE

Broj: 40/24

Sarajevo, 29.04.2024. godine

PRADEEP KURUKULASURIYA  
Director and Executive Coordinator,  
NatureClimate and Energy  
United Nations Development Programme  
(UNDP) and Green Climate Fund

**Predmet: Pismo podrške projektnom prijedlogu „Povećanje ulaganja u smanjenje poplavnog rizika“ UNDP**

Poštovani gospodine Kurukulasuriya,

Udruženje društava za osiguranje u Federaciji Bosne i Hercegovine (u daljem tekstu UDO FBiH) je neprofitna institucija sa sjedištem u Sarajevu nastala dobrovoljnim povezivanjem osiguravajućih društava sa ciljem unapređenja struke osiguranja i ostvarivanja zajedničkih interesa i ciljeva u skladu sa zakonskim propisima. UDO FBiH djeluje u skladu sa zakonskim propisima i ovlašteno je, pored ostalog, za pokretanje inicijative kod nadležnih organa za donošenje i izmjene zakonskih propisa iz oblasti osiguranja, te po potrebi, pribavljanje autentičnih tumačenja zakonskih i podzakonskih propisa i preduzimanje drugih pravnih radnji u svim vrstama postupaka na teritoriji Federacije Bosne i Hercegovine.

UDO FBiH ovim dopisom iskazuje svoju podršku projektnom prijedlogu „Povećanje ulaganja u smanjenje poplavnog rizika“, koji UNDP podnosi Zelenom klimatskom fondu i koji je usklađen sa ciljevima Udruženja.

Ovim iskazujemo našu spremnost da, u okviru programskih aktivnosti UDO FBiH, podržimo gore navedeni projekat tokom perioda 2024-2030, a u skladu sa nadležnostima koje ima UDO FBiH, a koje su propisane Zakonom o udruženjima i fondacijama F BiH (Službene novine Federacije BiH, br. 45/02) i Zakonom o osiguranju (Službene novine Federacije BiH, broj 23/17). Naš doprinos će se ogledati kroz finansiranje aktivnosti UDO FBiH, u iznosu od USD 300,000, koje bi bile komplementarne sa slijedećim aktivnostima koje su opisane u projektnom dokumentu:

- Aktivnost 3.1: Investicioni okvir za smanjenje i upravljanje rizicima od poplava uzrokovanih klimatskim promjenama uz uključivanje privatnog sektora u mehanizme finansiranja rizika i transfer rizika.

Gore navedena podrška se podrazumijeva samo u slučaju obezbjeđenja sredstava Zelenog klimatskog fonda, kao što je i navedeno u projektnom prijedlogu.

S poštovanjem,

Generalni sekretar  
UDO FBiH:  
mr.sc. Ermin Cengić



ASSOCIATION OF INSURANCE COMPANIES IN THE FEDERATION OF BOSNIA AND  
HERZEGOVINA

Number: 40/24  
Sarajevo, 29 04 2024

PRADEEP KURUKULASURIYA  
Director and Executive Coordinator,  
Nature Climate and Energy  
United Nations Development Programme  
(UNDP) and Green Climate Fund

**SUBJECT: Letter of Support to the UNDP Project Proposal: "Scaling up Climate-Resilient  
Flood Risk Management"**

Dear Mr. Kurukulasuriya,

The Association of Insurance Companies in the Federation of Bosnia and Herzegovina (hereinafter UDO FBiH) is a non-profit institution based in Sarajevo, formed through the voluntary association of insurance companies with the aim of advancing the insurance profession and achieving common interests and goals in accordance with legal regulations. UDO FBiH operates in accordance with legal regulations and is authorized, among other things, to initiate actions with competent authorities for the adoption and amendment of laws in the field of insurance, and, when necessary, to obtain official interpretations of legal and sub-legal regulations, as well as to take other legal actions in all types of proceedings within the territory of the Federation of Bosnia and Herzegovina.

With this letter, UDO FBiH expresses its support for the project proposal "Scaling up Climate-Resilient Flood Risk Management" which UNDP is submitting to the Green Climate Fund and which is aligned with the goals of the Association.

We hereby express our readiness, within the program activities of UDO FBiH, to support the above-mentioned project during the period 2024-2030, in accordance with the competences of UDO FBiH outlined in the Law on Associations and Foundations of the FBiH (Official Gazette of the Federation of BiH, No. 45/02) and the Law on Insurance (Official Gazette of the Federation of BiH, No. 23/17). Our contribution will be reflected in the financing of UDO FBiH activities in the amount of 300,000 USD, which would complement the following activities described in the project document:

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BIH 171000 Sarajevo I Kolodvorska 12 I tel.: +387 33 207 881 I e-mail: [udofbih@udofbih.ba](mailto:udofbih@udofbih.ba) I [www.udofbih.ba](http://www.udofbih.ba)



Activity 3.1. Develop a country-wide investment framework for climate induced flood risk reduction and management including provisions for private sector engagement in climate risk financing.

The above-mentioned support is provided only in the case of securing funds from the Green Climate Fund, as stated in the project proposal.

Kind regards,

Secretary General

MSc. Ermin Cengic

Unofficial translation



**REPUBLIC OF SRPSKA  
GOVERNMENT**

**MINISTRY OF SPATIAL PLANNING, CONSTRUCTION AND ECOLOGY**

Trg Republike Srpske 1, Banja Luka, Telephone 00387 (0)51 339 592; Fax 00387 (0)51 339 653  
E-mail: kabinetministra@mgr.vladars.rs; www.vladars.rs

Reference number: 15.4.1-052-6845/24

Dated, 18.10.2024.

**To: Nancy Bennet**  
**Executive Coordinator, ad interim (A.I)**  
**Vertical Fund Programme Support, Oversight and**  
**Compliance Unit (Vertical Fund Hub),**  
**Bureau for Policy and Programme Support (BPPS**  
**and**  
**The Green Climate Fund (GCF)**

Dear Mrs. Nancy Bennet,

The Ministry of Spatial Planning, Civil Engineering and Ecology of Republika Srpska, in its capacity of UNFCCC focal point for Bosnia and Herzegovina would like to express our full support to the GCF funded project "Scaling up climate resilient flood risk management in Bosnia and Herzegovina (B&H)", which will be implemented by UNDP. The project is fully aligned with the strategic objectives of the Ministry in the area of climate change adaptation.

Due to the specific needs and conditions of B&H, investment in adaptation activities is not yet fully attractive - neither for public nor private investors, regardless of huge losses and damages suffered, especially from floods, on yearly basis. Therefore, GCF support is needed to increase resilience of vulnerable B&H communities and livelihoods to intensified climate-induced hydro-meteorological flood-related disasters.

Having received excellent news about Project approval, we would like to confirm our commitment to provide in-kind contribution to the aforementioned project in the amount of US\$ 300,000.00 over the period 2024-2030 to support mainstreaming of climate-induced risks into sectoral policies, as well as mainstreaming and documenting of eco-system based approaches, as envisaged under output 2 (activities 2.1 and 2.3). Part of our support will be allocated for providing logistical support i.e. office space for project unit.

Sincerely,





Мјешовити Холдинг  
„Електропривреда Републике Српске“

Матично предузеће а.д. Требиње

Зависно предузеће

„Хидроелектране на Требишњици“

акционарско друштво, Требиње

Обала Луке Вукаловића 2, 89101 Требиње, РС/БиХ, www.henatrebisnjici.com,  
e-mail het@henatrebisnjici.com

Тел: +387 (59) 260 213, Факс: +387 (59) 260 782

Директор: 260 213, Извршни дир. за производњу и техничке послове: 260 214;

Извршни дир. за управљање системом: 260 478, Извршни дир. за економске, правне и опште послове: 223 713



Број: 7958,  
Датум: 22.10.24.

За: Ненси Бенет  
Извршни координатор, в.д. за вертикалне фондове  
UNDP канцеларија за политике и подршку програму  
и  
Зелени климатски фонд (GCF)

Поштована госпођо Бенет,

Зависно предузеће „Хидроелектране на Требишњици“, а.д. Требиње, саставни дио акционарског друштва Мјешовити Холдинг „Електропривреда Републике Српске“, чији је основни циљ, производња електричне енергије у потпуности усаглашена са квалитетним програмима и еколошким стандардима атрактивним на тржишту са аспекта одрживог развоја и заштите животне средине, који омогућавају додатну добит како за потрошаче, тако и за друштво и компанију.

Желимо да искажемо нашу пуну подршку пројектном приједлогу „Повећање улагања у смањење поплавног ризика“, који UNDP подноси Зеленом климатском фонду. Пројекат је у потпуности усклађен са стратешким циљевима Зависног предузећа „Хидроелектране на Требишњици“, а.д. Требиње као саставног дијела Мјешовитог Холдинга „Електропривреда Републике Српске“.

Овим дописом изражавамо спремност да кофинансирамо горе наведени пројекат, при чему би у периоду 2024-2030. године наш допринос износио 5 милиона америчких долара, који би се искористио за финансирање следећих активности:

Активност 1.1: Проширење хидрометеоролошке мреже у циљу појачаног праћења климатских варијабли

Активност 1.2: Унапређење хидролошко-хидрауличног моделирања узимајући у обзир и утицај климатских промјена, а у сврху одређивања опасности и ризика у складу са Директивом о поплавама

Регистровано код Округног привредног суда у Требињу, МБС: 62-01-0007-12; ЈИБ: 4401355020001; ПИБ: 401355020001

Жиро рачуни:  
НЛБ банка а.д. Бања Лука : 562-008-00000313-37;  
Уникредит банка а.д. Бања Лука: 551-030-00010943-20  
Нова банка а.д. Бања Лука: 555-009-00004811-82;  
Сбербанк а.д. Бања Лука: 567-443-11000507-66  
Комерцијална банка а.д. Бања Лука: 571-080-00000077-89



Активност 1.3: Развијање система прогнозе поплава и раног упозоравања укључујући и прогнозу дотока


Активност 2.2: Провођење и проширење неструктурних мјера смањења ризика од поплава и прилагођавања климатским промјенама.

Горе наведена подршка се подразумијева само у случају обезбјеђења средстава Зеленог климатског фонда, као што је и наведено у пројектном приједлогу.

С поштовањем,



За Управу  
в.д. Директора

  
Гордан Мишељић, дипл.маш.инж.



Number: 7958

Date: 22.10.24'

To: **Nancy Bennet**  
**Executive Coordinator, Acting for Vertical Funds**  
 UNDP Policy and Programme Support Office  
 and  
 Green Climate Fund (GCF)

Dear Ms. Bennett,

The subsidiary company "Hydroelectric Power Plants on Trebišnjica," JSC Trebinje, is a part of the joint-stock company Mixed Holding "Elektroprivreda Republike Srpske," whose main goal is the production of electricity fully aligned with quality programs and environmental standards attractive to the market, from the aspect of sustainable development and environmental protection, which enables additional benefits for consumers, society, and the company.

We hereby express our full support for the project proposal "Increasing Investment in Flood Risk Reduction," which UNDP is submitting to the Green Climate Fund. The project is fully aligned with the strategic goals of the subsidiary company "Hydroelectric Power Plants on Trebišnjica," JSC Trebinje, as part of the Mixed Holding "Elektroprivreda Republike Srpske."

Through this letter, we express our willingness to co-finance the aforementioned project. During the period from 2024 to 2030, our contribution of 5 million U.S. dollars will be used to co-finance the following activities:

Activity 1.1: Upgrade and expand the coverage of the hydrometric network for enhanced monitoring of climate variables in Category I catchments and torrential streams;

Activity 1.2: Enhance climate-induced flood hazard, risk and vulnerability information for strategic risk management and sound decision making for climate induced flood management;

Activity 1.3: Develop an integrated impact-based centralized and community-based flood forecasting and early warning system (FFEWS);





Activity 2.2: Implementation and mainstream new ecosystem-based flood risk reduction and climate change adaptation methods;

The above-mentioned support is contingent upon securing funds from the Green Climate Fund, as stated in the project proposal.

With regards,

For management:  
Director a.i.

Gordan Mišeljčić, dipl.ing.mech,  
(STAMPED AND SIGNED)

## Annex E: Timetable of project implementation

COMPONENTS/OUTPUTS	2024	2025				2026				2027				2028				2029				2030		
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
<b>Output 1: Fully integrated impact-based Flood Forecasting and EWS facilitates timely preparation and response</b>																								
Activity 1.1: Upgrade and expand the coverage of the hydrometric network for enhanced monitoring of climate variables in Category I catchments and torrential streams	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Activity 1.1.1: Develop optimized hydrometric network specification, develop ICT strategy and plan for hydrometric network	Assessment of existing hydrometric network and conceptual design of the optimised hydrometric network.	X	X	X	X	X	X	Detailed design document of the optimised hydrometric network;	X	X	X	X	X	X	X	X	X	X	X	Finalised protocols for the collection, transmission, sharing, storage, management and use of the observed data	X	X	X	Complete digitized data for all basins

COMPONENTS/OUTPUTS	2024	2025				2026				2027				2028				2029				2030		
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Activity 1.1.2: Procure and install equipment to increase density of the hydro-meteorological observation network and expand monitoring to include greater range of hydrometric variables that climate change is bringing				Technical specification, bill of quantity (BoQ), procurement plan for the optimised hydrometric network.	4) Procurement and implementation of equipment for ICT and telecommunications systems upgrades for hydrometric network support																			



COMPONENTS/OUTPUTS	2024	2025				2026				2027				2028				2029				2030		
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Activity 1.1.3: Set-up sustainable operation and maintenance O&M for the network				Report on the existing institutional arrangement for optimised hydrometric monitoring network management with	X	Strategic plan, methodologies, guidelines and manuals for the operation and maintenance of the optimised hydrometric network	X	50 practitioners of HMIIs and WAs trained in O&M of up-graded hydrometric stations																

COMPONENTS/OUTPUTS	2024	2025				2026				2027				2028				2029				2030		
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Activity 1.1.4: Develop long-term financing mechanisms for the maintenance of the hydrometric network				Report on public and private sector climate and flood risk management financing.	Awareness raising/sensitization workshops for private sector players.	Feasibility report on private sector financing of hydrometric network O&M and shortlist of tailored products and services to be provided to	Prototype mechanism for private sector cost recovery	Public Sector O&M financing strategy, action plan, budgetary allocation mechanisms and tools.																
Activity 1.2: Enhance climate-induced flood hazard, risk and vulnerability information for strategic risk management and sound decision making for climate induced flood management	X	X	X	X	X	X	X	X	X	X	X	X												

COMPONENTS/OUTPUTS	2024	2025				2026				2027				2028				2029				2030		
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Activity 1.2.1: Develop hydrological modelling for all main basins (category I rivers) to complement WBIF project's EUFD hazard and risk models		Hydrological model conceptualisation for each basin and review and analysis of available data for developing detailed hydrological models X		Acquire/procure datasets necessary for the development of enhanced hydrological models for detailed fluvial, torrent, and groundwater X		Detailed hydrological models for each target basin.																		

COMPONENTS/OUTPUTS	2024	2025				2026				2027				2028				2029				2030		
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Activity 1.2.2: Develop full basin hydraulic models	Topographic surveys in target basins	Relevant topographic data sets procured	Integrate detailed hydrological and hydraulic modelling of each target basin	Technical methodology for the systematic collection of gender-sensitive socio-economic data to support natural disaster risk and	Undertake socio-economic surveys for target river basins	X	Updated flood risk maps for target basins	X			Trained experts/modelers													

COMPONENTS/OUTPUTS	2024	2025				2026				2027				2028				2029				2030		
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Activity 1.2.3: Produce country-wide maps of torrents hazard, risk and vulnerability				Develop maps of erosion for FB&H territory (this is being done with IPA funds and will be completed in 2021). and update the existing	Develop Cadastre of torrential basins	X	Develop flash flood cadastre and flash flood susceptibility models, in line with the methodology for flash flood susceptibility modelling	4) Identify anti-erosion measures including structural and non-structural measures on individual river basin areas.	X	5) Develop finalised torrential hazard and risk maps for all target basins														

COMPONENTS/OUTPUTS	2024	2025				2026				2027				2028				2029				2030		
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Activity 1.2.4: HPP modelling for development of enhanced operating rules for HPPs. Incorporate HPP operations into flood hazard and risk modelling				Guidance, methodologies and specifications for dam breach modelling and mapping	X	X	Guidance, methodologies and specifications for the inclusion of HPP operations in flood hazard modelling and mapping: Reservoir	X	X	Updated Neretva and Trebišnjica basin model and optimised operating rules														
Activity 1.3: Develop an integrated impact-based centralized and community-based flood forecasting and early warning system (FFEWS)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

COMPONENTS/OUTPUTS	2024	2025				2026				2027				2028				2029				2030		
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Activity 1.3.1: Develop and implement impact-based FFEWS system			Assessment Report on legal, institutional, organisational, financial and technical environment. Issues and gaps, as well as data availability	X	A logical and physical database model for new and historic meteorological and hydrological data collections is developed.	X	The tools and services for online and offline data and metadata acquisition, quality and quantity control, database feed, post-	X	Developed and calibrated hydrological model for Neretva river Basin	X	x	Developed and calibrated hydrological model for Trebišnjica river Basin	x	X	Developed and calibrated hydrodynamic models and real time hydrological flood forecasting system for Neretva River area	X	X	Developed and calibrated hydrodynamic models and real time hydrological flood forecasting system for Trebišnjica River area	X	X	All models fully integrated in existing FFEWS platform, which already have models for Vrbas and Una-Sana models.	X	X	The staff of the two Hydro-meteorological services (HMSS), Agency for Adriatic sea basin and PI VS, is competent to use and manage the

COMPONENTS/OUTPUTS	2024	2025				2026				2027				2028				2029				2030		
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Activity 1.3.2: Implement CBEWS for high priority communities								Consultations with local authorities and community leaders on establishing the scheme and hazards experienced, including walkover					Arranging for the placement of markers and signs on buildings and other structures linked to warning threshold (alert) levels and signage											
								procurement and supervision for installation of manually-operated rain gauges and river gauges					procurement and supervision of installation of telemetered radar level gauges and rain gauges as appropriate											
								Establishing procedures for monitoring and evaluation and regular performance monitoring					Designing a standard set of warning messages, codes, icons, colour coding etc. to be used in future schemes for issuing warnings, based on a review of the in-country warning messages currently used											
								Establishing a volunteer observer or 'spotter' training and recruitment programme for rainfall, river conditions and flood extent																



COMPONENTS/OUTPUTS	2024	2025				2026				2027				2028				2029				2030		
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Activity 1.3.3: Review, identify and develop sector-specific FFEWS products								Review existing access to and use of climate and flood risk information in energy (HPP) sector.	X	X	Undertake studies to identify and design tailored climate information products and services for the HPP sector	X	Development of new climate information products and services for the HPP. The activity will include a detailed information needs assessment survey targeting HPP operators	X	X	Capacity building and training for HPP practitioners, including specific training on the use of climate information products and services								

COMPONENTS/OUTPUTS	2024	2025				2026				2027				2028				2029				2030								
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3						
Activity 1.3.4: Develop and implement a capacity development plan for embedding flood hazard and risk modelling approaches and FFEWS into appropriate institutions in B&H	Carry out workshops on hydrometry to include modern methods and equipment specification	Conduct trainings in hydrometric network design and implementation	X		Conduct trainings for local O&M staff on equipment maintenance	Introduce university courses in flood hazard analysis, modelling and mapping	X		Undertake refresher training in hydrology, hydraulic modelling and GIS	Conduct training in forecasting procedures	Conduct training in warning procedures	Conduct training in Common Alerting Protocols	Conduct training of HMI and WA staff in remote sensing	Conduct training of HMI, WA staff and other stakeholders in flood hazard risk assessment and mapping	X		Conduct FFEWS training on the new system for all institutions involved in FFEWS as identified by institutional mapping and modelling	X		Training on gender sensitive vulnerability and risk assessment and FRM options appraisal	Trainings in damages and losses assessment and the use of CBA in FRM options appraisal	Conduct training on proposed FRM policy and sectoral FRM	X		Awareness raising workshop for all government departments.	Targeted awareness and learning events on climate risk assessment and management for relevant sectoral investors	X		A series of targeted training workshops for municipalities	Workshops and round tables on risk management financing and risk transfer instruments
Activity 1.4: Develop and implement protocols and SoPs on data generation, data management and communication for effective impact based FFEWS and flood risk management	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X						

COMPONENTS/OUTPUTS	2024	2025				2026				2027				2028				2029				2030		
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Activity 1.4.1: mplement SoPs for “last-mile” warning, dissemination and communication system. Specify and implement the “last-mile” system including dissemination and warning technologies	X	X	X	X	X	SoPs for “last-mile” warning, dissemination and communication system developed	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

COMPONENTS/OUTPUTS	2024	2025				2026				2027				2028				2029				2030		
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Activity 1.4.2: Develop protocols and SOPs on data generation and data management for FRM						Development of Standard Operational Procedures, on data generation, at management and communication for effective EREWS																		

COMPONENTS/OUTPUTS	2024	2025				2026				2027				2028				2029				2030		
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Activity 1.4.3: Develop data sharing protocols and platform for climate data, across all government institutions in both entities.				Protocol on the horizontal and vertical inter-sectoral cooperation on flood risk management.	X	X	X	X	X	X	X	X	X	X	X	X	X	Establish an effective M&E system for flood risk management activities	X	X	X	X	X	X
Output 2: Non-structural flood risk reduction measures and nature-based solutions mainstreamed in sectoral policies and plans and effectively contribute to protection of people and livelihoods from climate-induced flood risk																								
Activity 2.1: Mainstream climate induced flood risk reduction into sectoral planning (agriculture, hydropower, critical infrastructure) and spatial planning	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				

COMPONENTS/OUTPUTS	2024	2025				2026				2027				2028				2029				2030		
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Activity 2.1.1: Mainstream climate induced flood risk reduction into sectoral strategies, plans and technical guidelines for agriculture, hydropower and critical infrastructure, forestry and environment			x	x	x	x	x	x	Development and mainstreaming of a strategy	Support policy development and implementation;	Development of the skills, tools and methods as well as generated technical material to enhance all sector-wide planning and make	Development of guidance documents, methodologies and technical regulations for the all sectors on flood risk assessment and	x	x	x	x	x	x	x	x				

COMPONENTS/OUTPUTS	2024	2025				2026				2027				2028				2029				2030		
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Activity 2.1.2: Develop country-wide floodplain zoning policy and legislation, based on hazard, risk and vulnerability mapping, flood resilient building codes and embed climate change considerations in the design and construction standards of critical infrastructure									Establish and publish development control rules and regulations designed to zone activities away from high risk areas and to encourage environmental enhancement of the floodplain	Develop policies for development of construction and building codes for properties in the floodplain that incorporate climate change flood	Develop missing and update existing, local/cantonal Spatial Plans and integration of Flood Zoning Policy and flood hazard and risk	Develop and implement a capacity building roadmap for state and entity authorities.												

COMPONENTS/OUTPUTS	2024	2025				2026				2027				2028				2029				2030		
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Activity 2.1.3: Update climate risk informed methodologies, standards for infrastructure design, construction material, use and maintenance of critical infrastructure in B&H				Review of existing design guidelines and specifications and identify requirement for revised and improved approaches to respond to the		Development and codification of revised guidelines and specifications based on detailed methodologies for incorporating CC considerations	Development of plan for long term capacity strengthening of practitioners.																	



COMPONENTS/OUTPUTS	2024	2025				2026				2027				2028				2029				2030		
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Activity 2.1.4: Deliver training and technical advice on climate resilient infrastructure design, construction and O&M approaches					Training of WA practitioners and engineers in climate resilient infrastructure design	Training and technical assistance WA staff in climate resilient project prioritisation and feasibility studies			TA and training of WA and municipal engineers using new CBA methods for project prioritization.	TA and training of WA and municipal managers in investment planning, engineering, project appraisal methods and development	TA and training of WA and municipal engineers in climate resilient infrastructure design and EIA	TA and training of WA and municipal engineers in identification, prioritisation and design of non-structural methods												
Activity 2.2: Implementation and mainstream new ecosystem-based flood risk reduction and climate change adaptation methods					X	X	X	X	X	X	X	X	X	X	X	X								

COMPONENTS/OUTPUTS	2024	2025				2026				2027				2028				2029				2030		
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Activity 2.2.1: Implement catchment management measures for reduced erosion																								

COMPONENTS/OUTPUTS	2024	2025				2026				2027				2028				2029				2030		
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Activity 2.2.2: Implement 21 selected non-structural flood risk reduction measures						Construction and supervision works on Spreča river in Gračanica settlement	Construction and supervision works on Neretva and Krupa river	Construction and supervision works on Bosna river in Modriča and Gomjenica river in Prijedor	X	X	Construction and supervision works on Bosna river in Dobo	Construction and supervision works on Bosna river in Maglaj and Spreča river in Lukavac	X	X	X	X	X							
Activity 2.3: Codify and mainstream EbA solutions into policies and regulations and promote non-structural measures among decision makers and communities	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

COMPONENTS/OUTPUTS	2024	2025				2026				2027				2028				2029				2030		
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Activity 2.3.1: Develop best-practice guidelines for non-structural measures	X	X	X	develop methodology and guidance for undertaking risk assessment and appraisal of EBA measures, by adapting traditional risk monitoring and measuring performance of effectiveness of EBA measures in reducing hazard or exposure to B&H		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

COMPONENTS/OUTPUTS	2024	2025				2026				2027				2028				2029				2030		
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Activity 2.3.2: Develop technical specification, standards and protocols for design and implementation of non-structural measures					Develop a knowledge portal and common resource centre to collect, collate and share knowledge and fill these gaps to advance uptake of nature-based solutions	X	X																	

COMPONENTS/OUTPUTS	2024	2025				2026				2027				2028				2029				2030		
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Activity 2.3.3: Review and implement training required for new non-structural measures					Undertake training in the methodology and guidance undertaking risk assessment and appraisal of EbA measure; eco-system analysis and evaluation; and eco-system valuation methods	Undertake training in the methodology and guidance undertaking risk assessment and appraisal of EbA measure; eco-system analysis and evaluation; and eco-system valuation methods																		
Activity 2.4: Review and strengthen institutional capacity and develop long-term institutional capacity development plans for climate resilient FRM	X	X	X	X	X	X			X			X	X	X			X	X	X	X	X	X	X	X

COMPONENTS/OUTPUTS	2024	2025				2026				2027				2028				2029				2030		
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Activity 2.4.1: Embed FRM training in existing government training programmes for long-term FRM training in B&H		Develop and establish training curricula, and rosters of trainers.	Develop mechanisms for delivering long-term capacity development such as development of key partnerships with universities that can be	Develop and establish training curricula, and rosters of trainers. ToT methodology.		Develop mechanisms for delivering long-term capacity development such as development of key partnerships with universities that can be						X	X	X								X	X	X

COMPONENTS/OUTPUTS	2024	2025				2026				2027				2028				2029				2030		
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Activity 2.4.2: Develop a costed and prioritised institutional capacity development plan to address technical, functional and human capacity gaps identified through the completed institutional capacity assessment					Capacity assessments of national and local state institutions: initial (baseline), mid-term and final	X			Deliver training curricula in the areas of: • flood hazard and risk assessment, hydrometry, forecasting and modelling, EWS; • vulnerability and risk assessments; • river basin flood risk management planning and the use of climate				Capacity assessments of national and local state institutions: initial (baseline), mid-term and final Deliver training curricula in the areas of: • flood hazard and risk assessment, hydrometry, forecasting and modelling, EWS; • vulnerability and risk assessments;	X			X	X	X	X	X			X



COMPONENTS/OUTPUTS	2024	2025				2026				2027				2028				2029				2030		
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Activity 2.4.3: Implement community-based training and awareness raising initiatives at community level					Develop and deliver an awareness raising campaign for: capacity building at municipal and community levels; Networking and advocacy; Country-wide media campaign on FRM and FFEWS				Develop and deliver an awareness raising campaign for: capacity building at municipal and community levels; Networking and advocacy; Country-wide media campaign on FRM and FFEWS				Develop and deliver an awareness raising campaign for: capacity building at municipal and community levels; Networking and advocacy; Country-wide media campaign on FRM and FFEWS				Develop and deliver an awareness raising campaign for: capacity building at municipal and community levels; Networking and advocacy; Country-wide media campaign on FRM and FFEWS				Develop and deliver an awareness raising campaign for: capacity building at municipal and community levels; Networking and advocacy; Country-wide media campaign on FRM and FFEWS			
Output 3: Climate-proof flood protection measures scaled-up through new and improved national and local investment frameworks increasing resilience of the most vulnerable groups to climate induced flooding																								
Activity 3.1: Develop investment framework for climate induced flood risk reduction and management	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

COMPONENTS/OUTPUTS	2024	2025				2026				2027				2028				2029				2030		
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Activity 3.1.1: Develop investment framework for climate induced floods risk reduction and management including provisions for public and private/productive sector engagement in climate risk financing	X	X	X	X	Develop sector-specific approaches for the private sector engagement in the climate resilience. Identify public-private partnerships, and develop strategies, plans, projects and implementation plans for PPPs. Working with the relevant priority public and private sectors develop the relevant sector resilience strategies and plans for long-term	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

COMPONENTS/OUTPUTS	2024	2025				2026				2027				2028				2029				2030		
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Activity 3.1.2: Develop risk financing and transfer mechanisms based on detailed socio-economic risk, damages and losses assessment					Undertake feasibility studies of all identified and shortlisted risk financing mechanisms based on Vrbas project, development of flood insurance models for the assessment of premiums and payouts of	X	X	X	X	X	X	X												

COMPONENTS/OUTPUTS	2024	2025				2026				2027				2028				2029				2030		
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Activity 3.1.3: Design natural disasters insurance scheme and explore and identify other risk financing products and tools									Establish a connection between micro-insurance and microfinance; review and identify changes required to the current regulations to enable micro-insurance product development Identify and develop concept for micro-insurance products for microfinance sector.	X	X	X												

COMPONENTS/OUTPUTS	2024	2025				2026				2027				2028				2029				2030		
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Activity 3.1.4: Develop tool for appraisal-led design for structural and non-structural FRM measures, FRM investment planning, climate risk financing mechanisms and for appraisal-led FRM options design and decision-making, based on cost benefit analysis (CBA) approaches					Development of unified methodology for undertaking cost-benefit analysis and CBA of FRM interventions and investment planning	Extension of the socio-economic GIS-based damage and loss modelling tool to include CBA of FRM interventions	X	Develop and deliver a training programme on the new tool																
Activity 3.2: Formulate multi-year climate resilient municipal investment plans and gender responsive community preparedness plans in selected municipalities (10-12) and in one canton in Vrbas, Una-Sana and Bosna, Drina, Neretva and Trebišnjica basins	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

COMPONENTS/OUTPUTS	2024	2025				2026				2027				2028				2029				2030		
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Activity 3.2.1: Develop municipal investment plan for climate-resilient FRM planning for 10-12 highest risk communities and 1 canton									Identification of financing models for investment maintenance costs (e.g. of community-based scheme that involve the use of tariffs or in-kind contributions to establish municipal maintenance programmes or engagement of private sector in infrastructure maintenance financial)	Use of municipality investment plans for technical justification for budget allocation to cover investment and maintenance cost for FRM	Detail design for torrents management	Formulate multi-year climate resilient municipal investment plan and gender sensitive community preparedness plan implemented in the												

COMPONENTS/OUTPUTS	2024	2025				2026				2027				2028				2029				2030		
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Activity 3.2.2: Develop preparedness plans for 10-12 highest risk communities and 1 canton	Capacity assessments of national and local state institutions: initial (baseline), mid-term and final	Capacity assessments of national and local state institutions: initial (baseline), mid-term and final							development of community preparedness plans for the most vulnerable 10-12 communities in target basins, (excluding Vrbas) in line with the procedure, methodology and content of CFEP in B&H as defined by Law of Protection and Rescue in RS and FB&H including cantons	X	X	X	Capacity assessments of national and local state institutions: initial (baseline), mid-term and final	Capacity assessments of national and local state institutions: initial (baseline), mid-term and final								Capacity assessments of national and local state institutions: initial (baseline), mid-term and final	Capacity assessments of national and local state institutions: initial (baseline), mid-term and final	
Activity 3.3: Implement climate-proof structural flood risk reduction and anti-erosion interventions in Vrbas, Una-Sana, Bosna and Drina river basins					X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

COMPONENTS/OUTPUTS	2024	2025				2026				2027				2028				2029				2030		
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Activity 3.3.1: Finalize detailed design of climate resilient flood protection structural measures	Detailed design of climate resilient flood protection measures: Undertake climate proofing of detailed design of proposed structural	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X				



COMPONENTS/OUTPUTS	2024	2025				2026				2027				2028				2029				2030		
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Activity 3.3.2: Implement new flood defences and the rehabilitation and upgrade of existing flood defences with climate proofing					Implementation of ESMF and development and implementation of site specific environmental and social safeguards plan, addressing grievances	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Project management, monitoring and evaluation																								

COMPONENTS/OUTPUTS	2024	2025				2026				2027				2028				2029				2030		
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Project Staffing, Project Operationalisation, Project Monitoring, Evaluation and Reporting*		Inception Report			APR				APR		Interim Evaluation		APR				APR				APR			Final Evaluation + Final Report consisting of APR and Final Evaluation
APR = Annual Performance Report																								
*In addition to this monitoring requirements, the Funded Activity is also subject to financial reporting per the AMA/FAA, such as Unaudited/Audited Financial Statements, Financial information reports, and other reports as defined in the FAA.																								



## Annex F: Procurement plan

### General

1. **Project information:** Scaling up climate resilient flood risk management in Bosnia and Herzegovina
2. **Version of the Plan:** Version 1.0 dated 15 June 2022
3. Approval Date of the procurement Plan:
4. **Date of General Procurement Notice:** -
5. **Period covered by this procurement plan:** First 18 months of the project duration
6. **Other Arrangements:** Procurement will be carried out by UNDP in line with UNDP's policies and procedures.
  
7. **UNDP Policy on Prior and Post Review:**  
To ensure procurement activities are conducted in line with accepted professional purchasing practices and appropriate rules and regulations, UNDP requires an independent review of the procurement process prior to a contract award. The review confirms that offers received are the result of a fully compliant process, sufficient funding exists, and risks have been assessed and mitigated. Such review is conducted by the Procurement Review Committees established at three levels:



	<b><u>Level 1 (Country Level):</u></b> Contracts, Assets and Procurement Committee	<b><u>Level 2 (Regional):</u></b> Regional Advisory Committee on Procurement (country offices only)	<b><u>Level 3 (HQ):</u></b> Advisory Committee on Procurement
<b>Competitive procurement process</b>			
Any contract or series of contracts including amendments to be awarded to a vendor <i>in a calendar year</i> that in aggregate has a cumulative value:	Above US \$50,000 (above US \$100,000 for Individual Contracts) and up to the standard delegated procurement authority – Direct Review by CAP Chairperson  Above the standard delegated procurement authority and up to any increased delegated procurement authority – by CAP Committee	Above the delegated procurement authority and up to US \$2 million (applies per year for Long-Term Agreements)	Headquarters units: above the delegated procurement authority.  Country offices: above US \$2 million (applies per year for Long-Term Agreements)
<b>Direct contracting</b>			
Any contract or series of contracts, including amendments to be awarded to a vendor <i>in a calendar year</i> that in aggregate has a cumulative value:	Above US \$50,000 and up to 50 percent of the standard delegated procurement authority – Direct Review by CAP Chairperson  Above 50 percent of the standard delegated procurement authority and up to 50 percent of any increased delegated procurement authority – by CAP Committee	Above 50 percent of the delegated procurement authority and up to US \$2 million (applies per year for long-term agreements)	Headquarters units: above 50 percent of the delegated procurement authority  Country offices: above US \$2 million (applies per year for long-term agreements)
<b>Amendment of all contracts</b>			



	<b><u>Level 1 (Country Level):</u></b> Contracts, Assets and Procurement Committee	<b><u>Level 2 (Regional):</u></b> Regional Advisory Committee on Procurement (country offices only)	<b><u>Level 3 (HQ):</u></b> Advisory Committee on Procurement
Any amendment or series of amendments to a contract which, in aggregate, increases the contract value by 20 percent or the delegated procurement authority, whichever is less:	Above US \$50,000 and up to the standard delegated procurement authority – Direct Review by CAP Chairperson.  Above the standard delegated procurement authority and up to the increased delegated procurement authority - by CAP Committee	Above the delegated procurement authority and up to US \$2 million (applies per year for long-term agreements)	Headquarters units: above the delegated procurement authority.  Country offices: above US \$2 million (applies per year for long-term agreements)
<b>Ex ante review</b>			
Ex ante review refers to the review of the procurement strategy roadmap prior to commencement of the procurement process for complex procurement actions with a value:	N/A	Above US \$1 million and up to US \$2 million (applies per year for long-term agreements)	Above US \$2 million (applies per year for long-term agreements)
Notes:	1. The procurement support unit shall participate when requested in the committee review of ex ante submissions. 2. An ex ante review is not required if: (a) The business unit has had a previous successful experience in the procurement of similar goods/services/works that was already subject to an ex ante review; or (b) There is sufficient specific corporate guidance and templates on the procurement of the said goods/services. 3. Irrespective of the above, the procurement authority may submit the cases for ex ante review if significant risks are perceived.		



## II. Goods, Works and non-consulting services.

### 1. Prior Review Threshold: Procurement Decisions subject to Prior Review by the AE

	Procurement Method	Threshold for use of method	Prior Review Threshold	Comment
1.	Request for quotation (RFQ)	US \$5,000 (\$10,000 if approved by the Bureau) to \$199,999		Goods, services or simple works / Open international or national or restricted international/national
2.	Invitation to bid (ITB)	US \$200,000 and above		Goods or works or simple services / Open international

### 2. Prequalification (for complex Civil Works)



### 3. Procurement Packages (for Goods, Works and Non-consultancy services) with Methods and Time Schedule

1	2	3	4	5	6	7	8	9	10	11	12	13
Ref. No.	Contract (Description)	Source of Funds	Planned vs Actual	Estimated Cost in US\$	Procurement Method	Prequalification (yes/no)	Domestic preference (yes/no)	Review by AE (Prior / Post)	Date of issuance of doc's	Bid-Opening Date	Date of contract /order signature	Comments
1.	Upgrade of ICT to support FFEWS platform	GCF	Planned	100,000	RFQ	No	No	Prior	Y1-Q3	Y1-Q3	Y1-Q3	UNDP has global LTAs for various categories of goods and services (including hydrological and meteorological equipment, which can be utilized for sourcing.
			Actual									
2.	Telephone and internet services	GCF	Planned	11,000	RFQ	No	No	Prior	Y1-Q1	Y1-Q1	Y1-Q1	
			Actual									
3.	Office supplies	GCF	Planned	9,000	RFQ	No	No	Prior	Y1-Q1	Y1-Q1	Y1-Q1	UNDP CO B&H has LTA with company that provides Office supplies, procurement can be obtain through that modality.
			Actual									
4.	5 laptops	GCF	Planned	9,000	RFQ	No	No	Prior	Y1-Q1	Y1-Q1	Y1-Q1	
			Actual									
5.	Electricity and communal services	GCF	Planned	24,000	RFQ	No	No	Prior	Y1-Q1	Y1-Q1	Y1-Q1	



1	2	3	4	5	6	7	8	9	10	11	12	13
Ref. No.	Contract (Description)	Source of Funds	Planned vs Actual	Estimated Cost in US\$	Procurement Method	Prequalification (yes/no)	Domestic preference (yes/no)	Review by AE (Prior / Post)	Date of issuance of doc's	Bid-Opening Date	Date of contract /order signature	Comments UNDP has global LTAs for various categories of goods and services (including hydrological and meteorological equipment, which can be utilized for sourcing.
			Actual									
6.	Acquire/procure datasets necessary for the development of enhanced hydrological models for detailed fluvial, torrent, and groundwater hydrological modelling in each river basin (surveys and data purchase) Acquire/purchase/commission high resolution topographic data for the floodplain areas through high-risk areas (Aerial photographs or LiDAR sources would be recommended in order to obtain a high-resolution DEM covering entire basins. Coarser DEM and topographic data will be used for the rest of the basin for basin wide modelling).	GCF	Planned	120,000	RFQ	No	No	Prior	Y1-Q3	Y1-Q3	Y1-Q3	
			Actual									
7.	Supervision over non structural works in Jošavka river basin	GCF	Planned	49,500	RFQ	No	No	Prior	Y3-Q2	Y3-Q2	Y3-Q2	
			Actual									
8.	Supervision over construction works in Krupa river in Višići settlement	GCF	Planned	12,656	RFQ	No	No	Prior	Y2-Q2	Y2-Q2	Y2-Q2	
			Actual									
9.		GCF	Planned	9,844	RFQ	No	No	Prior	Y1-Q4	Y1-Q4	Y1-Q4	





1	2	3	4	5	6	7	8	9	10	11	12	13
Ref. No.	Contract (Description)	Source of Funds	Planned vs Actual	Estimated Cost in US\$	Procurement Method	Prequalification (yes/no)	Domestic preference (yes/no)	Review by AE (Prior / Post)	Date of issuance of doc's	Bid-Opening Date	Date of contract /order signature	Comments UNDP has global LTAs for various categories of goods and services (including hydrological and meteorological equipment, which can be utilized for sourcing.
	Supervision over construction works on Neretva river at Struge-Čapljina section		Actual									
10.	Supervision over construction works on Spreča river in Gračanica settlement	GCF	Planned	93,750	RFQ	No	No	Prior	Y2-Q3	Y2-Q3	Y2-Q3	
			Actual									
11.	Supervision over construction works on Bosna river in Maglaj	GCF	Planned	9,839	RFQ	No	No	Prior	Y3-Q2	Y3-Q2	Y3-Q2	
			Actual									
12.	Supervision over construction works on Spreča river in Lukavac	GCF	Planned	23,906	RFQ	No	No	Prior	Y3-Q2	Y3-Q2	Y3-Q2	
			Actual									
13.	Supervision over construction works on Bosna river in Doboj	GCF	Planned	21,375	RFQ	No	No	Prior	Y3-Q1	Y3-Q1	Y3-Q1	
			Actual									
14.	Supervision over construction works on Bosna river in Modriča	GCF	Planned	38,588	RFQ	No	No	Prior	Y2-Q2	Y2-Q2	Y2-Q2	
			Actual									
15.	Supervision over construction works on Gomjenica river in Prijedor	GCF	Planned	33,975	RFQ	No	No	Prior	Y2-Q4	Y2-Q4	Y2-Q4	
			Actual									



1	2	3	4	5	6	7	8	9	10	11	12	13
Ref. No.	Contract (Description)	Source of Funds	Planned vs Actual	Estimated Cost in US\$	Procurement Method	Prequalification (yes/no)	Domestic preference (yes/no)	Review by AE (Prior / Post)	Date of issuance of doc's	Bid-Opening Date	Date of contract /order signature	Comments
16.	Upgrade of hydrometric network  - Procurement and installation of new hydrological, meteorological and groundwater stations.  - Procurement and implementation of equipment for ICT and telecommunications systems upgrades for hydrometric network support (Data Collection and Archiving System (DCAS))	GCF	Planned	1,286,100	ITB	No	No	Prior	Y1-Q3	Y1-Q3	Y1-Q3	UNDP has global LTAs for various categories of goods and services (including hydrological and meteorological equipment, which can be utilized for sourcing.
			Actual									
17.	Improvements in Meteorological forecasting capabilities  - ECMWF Membership; ECMWF data for 6 years  - Global Meteorological Forecasting Data Sources - GPM & MPE	GCF	Planned	265,000	ITB	No	No	Prior	Y1-Q1	Y1-Q1	Y1-Q1	
			Actual									
18.	Equipment for Community-based EWS:  - Purchases of monitoring devices - Water level sensors (x60)	GCF	Planned	356,400	ITB	No	No	Prior	Y2-Q2	Y2-Q2	Y2-Q2	
			Actual									



1	2	3	4	5	6	7	8	9	10	11	12	13
Ref. No.	Contract (Description)	Source of Funds	Planned vs Actual	Estimated Cost in US\$	Procurement Method	Prequalification (yes/no)	Domestic preference (yes/no)	Review by AE (Prior / Post)	Date of issuance of doc's	Bid-Opening Date	Date of contract /order signature	Comments
	- Purchases of monitoring devices - Staff gauges (x120)											
19.	Equipment for Community-based EWS: Purchase of communication tools – - GSM/GPRS modem device (x2); - Generators (x60); Sirens (x60); - Boards (x120); Miscellaneous	GCF	Planned	353,600	ITB	No	No	Prior	Y2-Q3	Y2-Q3	Y2-Q3	
			Actual									
20.	Construction works in Jošavka river basin: Erosion reduction on torrential watercourses e.g., gabion walls, sediment barriers etc.; the stabilization of excessively eroding riverbanks with vegetation cover and its root network; Planting of forest stripes in agricultural land;	GCF	Planned	841,500	ITB	No	No	Prior	Y3-Q1	Y3-Q1	Y3-Q1	
			Actual									
21.		GCF	Planned	240,468	ITB	No	No	Prior	Y2-Q2	Y2-Q2	Y2-Q2	



1	2	3	4	5	6	7	8	9	10	11	12	13
Ref. No.	Contract (Description)	Source of Funds	Planned vs Actual	Estimated Cost in US\$	Procurement Method	Prequalification (yes/no)	Domestic preference (yes/no)	Review by AE (Prior / Post)	Date of issuance of doc's	Bid-Opening Date	Date of contract /order signature	Comments UNDP has global LTAs for various categories of goods and services (including hydrological and meteorological equipment, which can be utilized for sourcing.
	Construction works in Krupa river in Višići settlement  - Rehabilitation of the right defensive embankment on the Krupa River in Višići settlement		Actual									
22.	Construction works on Neretva river at Struge-Čapljina section.  - Flood deposit removal and rehabilitation of damaged banks of the Neretva River at the Struge-Čapljina section	GCF	Planned	187,031	ITB	No	No	Prior	Y1-Q4	Y1-Q4	Y1-Q4	
			Actual									
23.	Construction works on Spreča river in Gračanica settlement  - Completion of flood protection line on river Spreča in urban areas of Gračanica settlement in total length of 2.5 km.	GCF	Planned	1,781,250	ITB	No	No	Prior	Y2-Q3	Y2-Q3	Y2-Q3	
			Actual									
24.	Construction works on Bosna river in Maglaj  - Completion of flood protection line on river Bosna in urban	GCF	Planned	187,035	ITB	No	No	Prior	Y3-Q2	Y3-Q2	Y3-Q2	
			Actual									



1	2	3	4	5	6	7	8	9	10	11	12	13
Ref. No.	Contract (Description)	Source of Funds	Planned vs Actual	Estimated Cost in US\$	Procurement Method	Prequalification (yes/no)	Domestic preference (yes/no)	Review by AE (Prior / Post)	Date of issuance of doc's	Bid-Opening Date	Date of contract /order signature	Comments UNDP has global LTAs for various categories of goods and services (including hydrological and meteorological equipment, which can be utilized for sourcing.
	areas of Maglaj settlement in total length of 1.3 km.											
25.	Construction works on Spreča river in Lukavac  - Completion of flood protection line on river Bosna in urban areas of Lukavac settlement in total length of 1.2 km.	GCF	Planned	454,218	ITB	No	No	Prior	Y3-Q2	Y3-Q2	Y3-Q2	
			Actual									
26.	Construction works on Bosna river in Doboj  - Construction of a bank revetment on the left bank starting from the New-Japanese Bridge in Doboj towards downstream at a length of approximately 1,5 km.	GCF	Planned	406,125	ITB	No	No	Prior	Y3-Q1	Y3-Q1	Y3-Q1	
			Actual									
27.	Construction works on Bosna river in Modriča  - Construction of protective structures in Dobor settlement:	GCF	Planned	733,162	ITB	No	No	Prior	Y2-Q2	Y2-Q2	Y2-Q2	
			Actual									



1	2	3	4	5	6	7	8	9	10	11	12	13
Ref. No.	Contract (Description)	Source of Funds	Planned vs Actual	Estimated Cost in US\$	Procurement Method	Prequalification (yes/no)	Domestic preference (yes/no)	Review by AE (Prior / Post)	Date of issuance of doc's	Bid-Opening Date	Date of contract /order signature	Comments  UNDP has global LTAs for various categories of goods and services (including hydrological and meteorological equipment, which can be utilized for sourcing.
	<div>- Regulation of the main riverbed of the Bosna River at a length of 2,500 m</div> <div>- Construction of a protective embankment along the Bosna River at a length of 2,900 m</div> <div>- Construction of an embankment along the Dusa River with a length of 250 m and the structure on the mouth of the Dubokovac canal.</div>											
28.	Construction works on Gomjenica river in Prijedor	GCF	Planned	645,525	ITB	No	No	Prior	Y2-Q4	Y2-Q4	Y2-Q4	
	Actual											
Total For Goods/Works/Services				8,303,847								



### III. Selection of Consultants

**1. Prior Review Threshold:** Selection decisions subject to Prior Review by AE:

	Selection Method	Prior Review Threshold	Comment
1.	Individual consultant (IC) contract	Below \$100,000	Individual consultancy services / Open international or national
2	Individual consultant (IC) contract	\$100,000 and above	Individual consultancy services / Open international
3.	Request for proposal (RFP)	US \$200,000 and above	Services / Open international
4.	Request for quotation (RFQ)	US \$5,000 (\$10,000 if approved by the Bureau) to \$199,999	Goods, services or simple works / Open international or national or restricted international/national

**2. Short list comprising entirely of national consultants:** Short list of consultants for services, estimated to cost less than \$100,000 equivalent per contract, may comprise entirely of national consultants in accordance with the Fund's interest in encouraging the development and use of National Consultants from partner countries of operation.

**3. Any Other Special Selection Arrangements:** [including advance procurement and retroactive financing, if applicable]

**4. Consultancy Assignments with Selection Methods and Time Schedule**



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1.	Three community impact evaluations/surveys including design and validation of the program split across Output 2-50% and Output 3 - 50%	GCF	240,000	IC	Prior	N/A	Y1-Q1	Y1-Q1	Y1-Q1	Y1-Q1	Y1-Q1	
2.	<p>International expert to review of existing public and private sector financing mechanisms for climate and flood risk management.</p> <ul style="list-style-type: none"> <li>- Identify key private sector players at risk from flooding, for key sectors including critical Infrastructure providers/managers, utility companies communications, telecommunications, Transportation Sector (Airlines/Air Traffic, road and rail operators), energy (hydropower and other than Hydropower);</li> <li>- Private enterprises such as hotel groups, chamber of commerce or business community, insurance and micro-finance companies and</li> <li>- undertake awareness raising on flood risk, flood risk management approaches for private and public sector.</li> </ul>	GCF	21,000	IC	Prior	N/A	Y1-Q3	Y1-Q3	Y1-Q3	Y1-Q3	Y1-Q3	





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	- Develop prototype mechanisms for cost recovery from a variety of private sector sources.											
3.	<p>International expert to develop public sector financing mechanisms</p> <p>- establishing and safeguarding public sector long-term commitment of network maintenance, capacity building for design, installation and maintenance of monitoring networks, community-managed gauging stations.</p> <p>- Development of innovative risk financing mechanisms that would seek to engage entity level and local government and beneficiary communities in O&amp;M of hydrometric network.</p> <p>- Develop Public Sector O&amp;M financing strategy, action plan, budgetary allocation mechanisms and tools.</p>	GCF	12,000	IC	Prior	N/A	Y2-Q2	Y2-Q2	Y2-Q2	Y2-Q2	Y2-Q2	
4.	International CTA services to the project	GCF	77,333	IC	Prior	N/A	Y1-Q1	Y1-Q1	Y1-Q1	Y1-Q1	Y1-Q1	
5.	International CTA services to the project	GCF	77,333	IC	Prior	N/A	Y2-Q1	Y2-Q1	Y2-Q1	Y21-Q1	Y2-Q1	
6.	International Hydrologist to lead development all hydrological studies	GCF	30,000	IC	Prior	N/A	Y1-Q1	Y1-Q1	Y1-Q1	Y1-Q1	Y1-Q1	
7.	International Institutional capacity expert to:	GCF	7,800	IC	Prior	N/A	Y1-Q4	Y1-Q4	Y1-Q4	Y1-Q4	Y1-Q4	



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	<ul style="list-style-type: none"> <li>- undertake capacity assessment of relevant institutions for flood risk assessment and modelling and</li> <li>- develop a long-term capacity development plan and training needs</li> </ul>											
8.	International Hydraulic modeler to lead modeling under activity 1.2.2 and develop national capacities plan	GCF	21,600	IC	Prior	N/A	Y1-Q3	Y1-Q3	Y1-Q3	Y1-Q3	Y1-Q3	
9.	<p>International expert to review existing guidance, methodologies and specifications for dam breach modelling and mapping.</p> <ul style="list-style-type: none"> <li>- Develop a unified technical guidance and specification for dam safety flood risk assessment, inundation modelling and mapping to include dam breach modelling and mapping which includes climate risk considerations.</li> <li>- Develop a strategy and programme of updating dam breach modelling and mapping based on developed unified guidance to cover all high and medium hazard dams in B&amp;H.</li> <li>- Deliverable: Guidance, methodologies and specifications for dam breach modelling and mapping; Strategy and programme of updating dam breach modelling and mapping for all medium and high hazard dams in B&amp;H.</li> </ul>	GCF	15,000	IC	Prior	N/A	Y1-Q3	Y1-Q3	Y1-Q3	Y1-Q3	Y1-Q3	



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10.	<p>International consultant to undertake studies to identify and design tailored climate information products and services for the HPP sector.</p> <p>- This will include cost-benefit analysis and appraisal of the options as well as detailed sector analysis including willingness to pay surveys.</p>	GCF	17,500	IC	Prior	N/A	Y2-Q4	Y2-Q4	Y2-Q4	Y2-Q4	Y2-Q4	
11.	<p>International expert to review existing access to and use of climate and flood risk information in agriculture sector.</p>	GCF	30,000	IC	Prior	N/A	Y2-Q3	Y2-Q3	Y2-Q3	Y2-Q3	Y2-Q3	
12.	<p>International expert for review of existing hydropower sector dam safety strategies, policies and plans and identify entry points for embedding climate risk resilient approaches;</p> <p>- Develop the climate risk-informed dam flood safety strategy for dams in B&amp;H;</p> <p>- Integrate climate risk and adaptation priorities into the HPP sector plans, investments and budget frameworks, including the investment appraisal skills, economic valuation of climate change impacts, based on sector model, trade off analysis and cost-benefit assessments for a range of plausible adaptation options in HPP;</p> <p>- Development of guidance documents, methodologies and technical regulations for the HPP sector on climate risk</p>	GCF	21,000	IC	Prior	N/A	Y2-Q4	Y2-Q4	Y2-Q4	Y2-Q4	Y2-Q4	



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	assessment and management and the use of climate information.											
13.	<p>International expert for technical assistance to entity forestry for:</p> <ul style="list-style-type: none"> <li>- development and mainstreaming of basin afforestation/reforestation and agro-forestry strategies and FR adaptation priorities into the forestry sector plans, investments and budget frameworks.</li> <li>- Development of the skills, tools and methods as well as generated technical material to enhance forestry sector-wide planning and make investment decisions more climate risk responsive;</li> <li>- Development of guidance documents, methodologies and technical regulations for the forestry sector on flood risk assessment and management and the use of climate change induced flood risk information in forestry management.</li> </ul>	GCF	33,000	IC	Prior	N/A	Y2-Q4	Y2-Q4	Y2-Q4	Y2-Q4	Y2-Q4	
14.	<p>International expert in critical infrastructure design for:</p> <ul style="list-style-type: none"> <li>- Review of existing design guidelines and specifications and identify requirement for revised and improved approaches to respond to the changing climate and existing conditions on the ground;</li> </ul>	GCF	42,000	IC	Prior	N/A	Y1-Q3	Y1-Q3	Y1-Q3	Y1-Q3	Y1-Q3	



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	<ul style="list-style-type: none"> <li>- Development and codification of revised guidelines and specifications based on detailed methodologies for incorporating CC considerations into risk assessments, strategies, policies and plans for all critical infrastructure relevant sectors using international best practice,</li> <li>- Development of plan for long term capacity strengthening of practitioners.</li> </ul>											
15.	<p>TA from international expert in EbA to:</p> <ul style="list-style-type: none"> <li>- develop methodology and guidance for undertaking risk assessment and appraisal of EbA measures, by adapting traditional risk assessment and appraisal methods for nature-based solutions,</li> <li>- to incorporate the full range of benefits generated by nature-based projects. review existing international technical specifications, standards and protocols for the design and implementation of nature-based structures and adapt and develop same for B&amp;H,</li> <li>- Develop performance standards as well as mechanisms for monitoring and measuring performance of effectiveness of EBA measures in reducing hazard or exposure in B&amp;H</li> </ul>	GCF	33,000	IC	Prior	N/A	Y1-Q2	Y1-Q2	Y1-Q2	Y1-Q2	Y1-Q2	



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16.	International Institutional Capacity development and training expert to: - develop and establish training curricula, and rosters of trainers. - ToT methodology; - Develop mechanisms for delivering long-term capacity development such as development of key partnerships with universities that can be forged to ensure long-term FRM training.	GCF	20,000	IC	Prior	N/A	Y1-Q3	Y1-Q3	Y1-Q3	Y1-Q3	Y1-Q3	
17.	Mid-term and Terminal evaluation	GCF	42,000	IC	Prior	N/A	Y2-Q4	Y2-Q4	Y2-Q4	Y2-Q4	Y2-Q4	
18.	International consultant to undertake: - Identification of financing models for investment maintenance costs (e.g. of community-based scheme that involve the use of tariffs or in-kind contributions to establish municipal maintenance programs or engagement of private sector in infrastructure maintenance financing);	GCF	10,000	IC	Prior	N/A	Y2-Q4	Y2-Q4	Y2-Q4	Y2-Q4	Y2-Q4	
19.	Implementation of ESMF and development and implementation of site specific environmental and social safeguards plan, addressing grievances	GCF	125,000	IC	Prior	N/A	Y1-Q4	Y1-Q4	Y1-Q4	Y1-Q4	Y1-Q4	
20.	National Telecommunications and ICT expert to develop the optimized basin telecommunications and ICT network plan, detailed specification, design and	GCF	4,800	IC	Prior	N/A	Y1-Q2	Y1-Q2	Y1-Q2	Y1-Q2	Y1-Q2	



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	procurement documents to support the expanded hydrometric network											
21.	National expert in hydrometric network design to review of the existing coverage, physical condition and data collection procedures of the basin hydrometric network, working across all basins, to help develop and provide detailed specification and design including costs of all equipment and each component of the networks specified, including the detailed design and bid document for the stations for rehabilitation / new installation. Assist in preparation of Technical specification, bill of quantity (BoQ), procurement plan for the optimized hydrometric network	GCF	15,000	IC	Prior	N/A	Y1-Q3	Y1-Q3	Y1-Q3	Y1-Q3	Y1-Q3	
22.	National expert work with International consultant in climate risk financing to:  - Conduct a willingness to pay analysis for key private sector players for increased data provision of key hydrometeorological data.  - Conduct detailed feasibility assessment of key private sector players to; a) determine their interest in paying for tailored products that will be used in their operations; b) to determine their willingness to support or partially support the O&M of hydrometric monitoring and early warning systems, equipment and information products.	GCF	20,000	IC	Prior	N/A	Y1-Q4	Y1-Q4	Y1-Q4	Y1-Q4	Y1-Q4	



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23.	<p>National socio-economics consultant</p> <ul style="list-style-type: none"> <li>- Develop the technical methodology for the systematic collection of gender-sensitive socio-economic data to support natural disaster risk and vulnerability assessment, based on community surveys and PGIS methodology developed under Vrbas.</li> <li>- Undertake socio-economic surveys for target river basins. Deliverable: socio-economic surveys for target river basins</li> <li>- Undertake socio-economic risk and vulnerability modelling and assessment based on enhanced flood hazard maps using the Vrbas risk modelling methodology. Develop socio-economic flood risk and vulnerability modelling and mapping of target basins.</li> </ul>	GCF	49,500	IC	Prior	N/A	Y1-Q2	Y1-Q2	Y1-Q2	Y1-Q2	Y1-Q2	
24.	<p>Undertake an institutional capacity assessment of FRM institutions, and Develop a capacity development plan for embedding flood hazard and risk modelling approaches and FFEWS into appropriate institutions in B&amp;H</p>	GCF	10,000	IC	Prior	N/A	Y1-Q2	Y1-Q2	Y1-Q2	Y1-Q2	Y1-Q2	
25.	<p>National consultant to finalize data sharing protocols on:</p> <ul style="list-style-type: none"> <li>- Protocol on the horizontal and vertical inter-sectoral cooperation on flood risk management to harmonize water management between entities and ensure</li> </ul>	GCF	6,000	IC	Prior	N/A	Y1-Q3	Y1-Q3	Y1-Q3	Y1-Q3	Y1-Q3	





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	timely information flow to the state level for the purpose of international reporting obligations.  - Protocol on cooperation between water management key sectors;  - Protocol establishing an effective M&E system for flood risk management activities											
26.	National Consultant to support international consultant in climate risk financing to:  - Develop sector-specific approaches for the private sector engagement in the climate resilience. Identify public-private partnerships, and develop strategies, plans, projects and implementation plans for PPPs	GCF	21,000	IC	Prior	N/A	Y1-Q4	Y1-Q4	Y1-Q4	Y1-Q4	Y1-Q4	
27.	National legal and policy expert to:  - Strengthen the regulatory framework to ensure policies, laws, and regulations create an enabling environment for private sector investment in adaptation; Strengthening governance by bringing together private, public and civil society actors to mainstream climate change adaptation in their decision-making processes and develop partnerships and collaborations. - Establish a connection between micro-insurance and microfinance; review and identify changes required to the	GCF	6,000	IC	Prior	N/A	Y1-Q4	Y1-Q4	Y1-Q4	Y1-Q4	Y1-Q4	



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	current regulations to enable micro-insurance product development Identify and develop concept for micro-insurance products for microfinance sector.											
28.	National legal and policy expert to: - Establish a connection between micro-insurance and microfinance; review and identify changes required to the current regulations to enable micro-insurance product development Identify and develop concept for micro-insurance products for microfinance sector.	GCF	33,000	IC	Prior	N/A	Y2-Q4	Y2-Q4	Y2-Q4	Y2-Q4	Y2-Q4	
29.	National socio-economics expert for: - Development of unified methodology for undertaking cost-benefit analysis and CBA of FRM interventions and investment planning - Extension of the socio-economic GIS-based damage and loss modelling tool to include CBA of FRM interventions. - Develop and deliver a training program on the new socio-economic GIS-based damage and loss modelling tool	GCF	29,400	IC	Prior	N/A	Y1-Q4	Y1-Q4	Y1-Q4	Y1-Q4	Y1-Q4	
30.	National socio-economics expert for: - Technical assistance to government in identifying and prioritizing flood risk financing using CBA tool; Embedded	GCF	15,000	IC	Prior	N/A	Y2-Q4	Y2-Q4	Y2-Q4	Y2-Q4	Y2-Q4	



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	CBA tools in municipality as a standardized requirement for developing annual infrastructure investment plans.											
31.	Training of WA practitioners and engineers in: - climate resilient infrastructure design Training and technical assistance WA staff in - climate resilient project prioritization and feasibility studies	GCF	28,000	RFQ	Prior	N/A	Y1-Q4	Y1-Q4	Y1-Q4	Y1-Q4	Y1-Q4	
32.	TA and training of WA and municipal engineering using new CBA methods for project prioritization.	GCF	60,000	RFQ	Prior	N/A	Y3-Q2	Y3-Q2	Y3-Q2	Y3-Q2	Y3-Q2	
33.	National company/NGO to develop and deliver an awareness raising campaign for: - capacity building at municipal and community levels; - Networking and advocacy; - Country-wide media campaign on FRM and FFEWS	GCF	40,000	RFQ	Prior	N/A	Y1-Q4	Y1-Q4	Y1-Q4	Y1-Q4	Y1-Q4	
34.	Deliver training in the areas of risk financing and transfer mechanisms	GCF	25,000	RFQ	Prior	N/A	Y2-Q4	Y2-Q4	Y2-Q4	Y2-Q4	Y2-Q4	
35.	Workshop	GCF	5,000	RFQ	Prior	N/A	Y1-Q1	Y1-Q1	Y1-Q1	Y1-Q1	Y1-Q1	
36.	Provide training for hydrometric staff in the O&M of upgraded hydrometric stations.	GCF	30,000	RFQ	Prior	N/A	Y1-Q4	Y1-Q4	YQ-Q4	Y1-Q4	Y1-Q4	



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	50 practitioners of HMIs and WAs trained in O&M of upgraded hydrometric stations											
37.	<p>Consultancy in hydrological Modelling to undertake:</p> <ul style="list-style-type: none"> <li>- Hydrological model conceptualization for each basin and review and analysis of available data for developing detailed hydrological models for fluvial, torrent, and groundwater and HPP hydrological modelling in each river basin</li> <li>- Using the most appropriate modelling techniques, establish basin numerical hydrological models as inputs to the hydraulic models.</li> </ul>	GCF	34,673	RFQ	Prior	N/A	Y1-Q1	Y1-Q1	Y1-Q1	Y1-Q1	Y1-Q1	
38.	<p>National Hydraulic Modelling:</p> <ul style="list-style-type: none"> <li>- Undertake detailed topographic surveys of the river channel where necessary, including all major infrastructure across the river (e.g. bridges, dams etc.) and along riverbanks (e.g. flood walls, levees etc.) for the parts of the basins to be modelled.</li> <li>- Using the most appropriate modelling techniques, establish numerical high-level basin wider hydraulic models. For each basin undertake detailed linked hydrological-hydraulic modelling in line with the unified EUFD methodology and produce high resolution flood hazard inundation maps.</li> </ul>	GCF	130,100	RFQ	Prior	N/A	Y1-Q4	Y1-Q4	Y1-Q4	Y1-Q4	Y1-Q4	



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	- Integrate detailed hydrological and hydraulic modelling for Areas for further assessment (AFAs) being modelled by WBIF project into the high-level river basin models.											
39.	Capacity building and training for HPP practitioners, including specific training on the use of climate information products and services.	GCF	20,000	RFQ	Prior	N/A	Y3-Q3	Y3-Q3	Y3-Q3	Y3-Q3	Y3-Q3	
40.	Supporting improvement of agrometeorological advisory services to farmers.  - ToT for agricultural specialists working with local farmers to teach them how best to use the weather forecasts within their farming methods.  - Usage of automatic SMS text messaging to disseminate information to registered farmers.	GCF	47,500	RFQ	Prior	N/A	Y3-Q1	Y3-Q1	Y3-Q1	Y3-Q1	Y3-Q1	
41.	Implement a capacity development plan for embedding flood hazard and risk modelling approaches and FFEWS into appropriate institutions in B&H	GCF	80,000	RFQ	Prior	N/A	Y1-Q3	Y1-Q3	Y1-Q3	Y1-Q3	Y1-Q3	
42.	TA from International consultancy for developing last mile warning and communication system (including dissemination and warning technologies) to:	GCF	30,000	RFQ	Prior	N/A	Y1-Q4	Y1-Q4	Y1-Q4	Y1-Q4	Y1-Q4	



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	<ul style="list-style-type: none"> <li>- help the government to clearly define the supporting SOPs including</li> <li>- definition of major and minor hazards to which the different levels of response will be needed, and review of criteria for their distinction.</li> <li>- Thresholds and areas of influence will be determined through hazard and risk mapping based on which definition of the response size and resources to be deployed will be determined for relevant response agencies (including local and regional authorities).</li> <li>- Criteria for the definition of the different warning levels will be established and different standard types of messages will be devised depending on the recipient of the message.</li> <li>- Clear communication lines between different agencies will be established, any duplication and inefficiencies will be eliminated. Moreover, the role of the operations Center will be clarified, and their capacities strengthened in terms of warnings and operative responses from first responders.</li> </ul>											
43.	<p>National Consultancy in GIS-based systems and technology to:</p> <ul style="list-style-type: none"> <li>- Scale up FRM data sharing technologies - Development and extension of the Vrbas</li> </ul>	GCF	70,000	RFQ	Prior	N/A	Y1-Q3	Y1-Q3	Y1-Q3	Y1-Q3	Y1-Q3	



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	GeoPortal a municipal level flood risk data sharing and PGIS platform; - Contribute to the development of the Disaster Risk Analysis System.											
44.	Establishment of inter-entity, cross-sectoral flood risk management platform. - To integrated local level and embed FRM into local development processes; - Work closely with the Focal Point to promote effective coordination of activities;	GCF	40,000	RFQ	Prior	N/A	Y1-Q3	Y1-Q3	Y1-Q3	Y1-Q3	Y1-Q3	
45.	National consultancy in agriculture for: - Development and mainstreaming of a strategy for climate-smart agriculture which integrates climate risk and adaptation priorities into the agriculture sector plans, investments and budget frameworks, - Support policy development and implementation; - Undertake large-scale surveys of farmers' attitudes to proposed climate-smart FRM methods; - Undertake an economic analysis of the impact of different FRM measures under different scenarios and across different farming systems; - Development of the skills, tools and methods as well as generated technical	GCF	36,000	RFQ	Prior	N/A	Y2-Q3	Y2-Q3	Y2-Q3	Y2-Q3	Y2-Q3	



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	<p>material to enhance agriculture sector-wide planning and make investment decisions more climate risk responsive;</p> <ul style="list-style-type: none"> <li>- Development of guidance documents, methodologies and technical regulations for the agricultural sector on flood risk assessment and management and the use of climate change induced flood risk information and agricultural risk management.</li> </ul>											
46.	<p>National Consultancy in Spatial planning to:</p> <ul style="list-style-type: none"> <li>- Update the existing floodplain zoning policy to produce the country-wide flood zone designation policy for all basins in B&amp;H;</li> <li>- Establish and publish development control rules and regulations designed to zone activities away from high risk areas and to encourage environmental enhancement of the floodplain;</li> <li>- Develop policies for development of construction and building codes for properties in the floodplain that incorporate climate change flood resilience.;</li> <li>- Develop missing and update existing, local/cantonal Spatial Plans and integration of Flood Zoning Policy and flood hazard and risk information into the local/cantonal</li> </ul>	GCF	24,000	RFQ	Prior	N/A	Y2-Q4	Y2-Q4	Y2-Q4	Y2-Q4	Y2-Q4	





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	Spatial Plans for 10-12 municipalities and cantons; - Develop and implement a capacity building roadmap for state and entity authorities.											
47.	National consultancy in systems and technology for: - Develop a knowledge portal and common resource center to collect, collate and share knowledge and fill these gaps to advance uptake of nature-based solutions.	GCF	15,000	RFQ	Prior	N/A	Y1-Q4	Y1-Q4	Y1-Q4	Y1-Q4	Y1-Q4	
48.	Undertake training in the methodology and guidance undertaking risk assessment and appraisal of EbA measure; - eco-system analysis and evaluation; and - eco-system valuation methods, and - eco-system benefit assessment as part of CBA.	GCF	15,000	RFQ	Prior	N/A	Y1-Q4	Y1-Q4	Y1-Q4	Y1-Q4	Y1-Q4	
49.	Capacity assessments of national and local state institutions: initial (baseline), mid-term and final	GCF	90,000	RFQ	Prior	N/A	Y1-Q1	Y1-Q1	Y1-Q1	Y1-Q1	Y1-Q1	
50.	Deliver training curricula in the areas of: - flood hazard and risk assessment, hydrometry, forecasting and modelling, EWSS; - vulnerability and risk assessments; - river basin flood risk management planning and the use of climate information;	GCF	21,000	RFQ	Prior	N/A	Y1-Q4	Y1-Q4	Y1-Q4	Y1-Q4	Y1-Q4	



1	2	3	3	4	5	6	7	8	9	10	11	
Ref. No.	Description of Assignment	Source of Funds	Estimated Cost	Selection Method	Review by AE (Prior / Post)	Issuance of Expression of Interest	Finalize shortlist and issue RFP	Proposals Submission Date	Complete Technical Evaluation	Complete Financial Evaluation	Negotiate and Award	Comment
51.	National consultancy for Formulate multi-year climate resilient municipal investment plan and gender sensitive community preparedness plan implemented in the highest risk municipalities (10-12) and 1 canton, based on risk-informed project designs, including maintenance, and costs-benefit analysis based on CBA methods and models.	GCF	100,000	RFQ	Prior	N/A	Y2-Q4	Y2-Q4	Y2-Q4	Y2-Q4	Y2-Q4	
52.	National consultancy for Technical assistance to support the development of community preparedness plans for the most vulnerable 10-12 communities in target basins, (excluding Vrbas) in line with the procedure, methodology and content of CFEP in B&H as defined by Law of Protection and Rescue in RS and FB&H including cantons	GCF	100,000	RFQ	Prior	N/A	Y2-Q4	Y2-Q4	Y2-Q4	Y2-Q4	Y2-Q4	
53.	Capacity assessments of national and local state institutions: initial (baseline), mid-term and final	GCF	90,000	RFQ	Prior	N/A	Y1-Q1	Y1-Q1	Y1-Q1	Y1-Q1	Y1-Q1	
54.	Design of nonstructural measures in Jošavka river basin. Identify agriculture infrastructure that could address climate threats, such as irrigation systems and reservoirs and rainwater collection in each target basin; Assess and identify flood risks to agricultural infrastructure in target basins, as well as flood risk management opportunities associated with agricultural infrastructure under climate change and potential new infrastructure such as irrigation retention	GCF	99,000	RFQ	Prior	N/A	Y2-Q2	Y2-Q2	Y2-Q2	Y2-Q2	Y2-Q2	



1	2	3	3	4	5	6	7	8	9	10	11	
Ref. No.	Description of Assignment	Source of Funds	Estimated Cost	Selection Method	Review by AE (Prior / Post)	Issuance of Expression of Interest	Finalize shortlist and issue RFP	Proposals Submission Date	Complete Technical Evaluation	Complete Financial Evaluation	Negotiate and Award	Comment
	basins that could also serve as flood storage areas; Design an agro-forestation scheme identified area of floodplain and develop an implementation plan for the scheme;											
55.	<p>Development of new climate information products and services for the HPP.</p> <ul style="list-style-type: none"> <li>- The activity will include a detailed information needs assessment survey targeting HPP operators.</li> <li>- Workshops and information sessions will be carried out in order to collect information about what data would be particularly useful to them, how would it be best to disseminate this information and their current practices.</li> <li>- Development of HPP sector specific climate information products, tools and services</li> </ul>	GCF	150,000	RFP	Prior	N/A	Y3-Q1	Y3-Q1	Y3-Q1	Y3-Q1	Y3-Q1	
56.	Development of Standard Operational Procedures, on data generation, management and communication for effective FFEWS. Including technology updates to existing data sharing software and databases (WIS and HIS)	GCF	100,000	RFP	Prior	N/A	Y2-Q1	Y2-Q1	Y2-Q1	Y2-Q1	Y2-Q1	
57.	Development of climate proofing of existing detailed designs for flood protection measures	GCF	750,280	RFP	Prior	N/A	Y1-Q1	Y1-Q1	Y1-Q1	Y1-Q1	Y1-Q1	



1	2	3	3	4	5	6	7	8	9	10	11	
Ref. No.	Description of Assignment	Source of Funds	Estimated Cost	Selection Method	Review by AE (Prior / Post)	Issuance of Expression of Interest	Finalize shortlist and issue RFP	Proposals Submission Date	Complete Technical Evaluation	Complete Financial Evaluation	Negotiate and Award	Comment
	- Undertake climate proofing of detailed design of proposed structural and non-structural measures											
58.	<p>International consultancy in climate risk financing to:</p> <ul style="list-style-type: none"> <li>- Working with the relevant priority public and private sectors develop the relevant sector resilience strategies and plans for long-term ongoing FRM investment frameworks for each (at least three) sector.</li> <li>- Develop a strategy and tools for private sector engagement in long-term climate-proof risk management;</li> <li>- Develop a strategy and plan and provide technical assistance to financial institutions to mainstream climate change risks into their business models to manage the effects.</li> <li>- Development of risk financing and risk transfer mechanisms strategy to include private sector engagement strategy for long-term implementation of risk financing and risk transfer mechanisms for entity-level flood risk financing and resilience strategy including incentivization mechanisms for enhancing access to finance to improve the risk-reward profile of private sector investment in climate change adaptation;</li> </ul>	GCF	140,000	RFP	Prior	N/A	Y1-Q4	Y1-Q4	Y1-Q4	Y1-Q4	Y1-Q4	



1	2	3	3	4	5	6	7	8	9	10	11	
Ref. No.	Description of Assignment	Source of Funds	Estimated Cost	Selection Method	Review by AE (Prior / Post)	Issuance of Expression of Interest	Finalize shortlist and issue RFP	Proposals Submission Date	Complete Technical Evaluation	Complete Financial Evaluation	Negotiate and Award	Comment
	<ul style="list-style-type: none"> <li>- Identification or public-sector risk financing mechanisms for flood risk management;</li> <li>- Identify and develop Risk financing and transfer mechanisms products and tools, based on detailed socio-economic risk, damages and losses assessment;</li> </ul>											
59.	<p>International Consultancy in Insurance to:</p> <ul style="list-style-type: none"> <li>- Undertake feasibility studies of all identified and shortlisted risk financing mechanisms based on Vrbas project, development of flood insurance models for the assessment of premiums and payouts of flood events of different return periods;</li> <li>- Provide technical assistance to financial institutions and financiers, including micro-financing institutions, for the development of lending products to mainstream the use of climate-risk information into their lending processes that maximizes performance and minimizes risks and to provide loans to climate responsive/resilient enterprises in B&amp;H</li> <li>- Undertake a feasibility study into the introduction of micro-insurance for agricultural producers, entrepreneurs and</li> </ul>	GCF	133,000	RFP	Prior	N/A	Y1-Q4	Y1-Q4	Y1-Q4	Y1-Q4	Y1-Q4	



1	2	3	3	4	5	6	7	8	9	10	11	
Ref. No.	Description of Assignment	Source of Funds	Estimated Cost	Selection Method	Review by AE (Prior / Post)	Issuance of Expression of Interest	Finalize shortlist and issue RFP	Proposals Submission Date	Complete Technical Evaluation	Complete Financial Evaluation	Negotiate and Award	Comment
	<p>small and medium-sized enterprises in different industries.</p> <ul style="list-style-type: none"> <li>- Undertake feasibility study for creating a regional disaster risk insurance micro-insurance program to increase the degree of diversification of risk.</li> <li>- Undertake feasibility of issuing catastrophe bonds to transfer disaster risk to the capital market.</li> <li>- Identification of potential sector-specific natural disaster (including floods) insurance product packages for insurance in each of the defined sectors, based on studies to estimate cost-benefit,</li> </ul>											
60.	<p>Consultancy in Torrents/flashflood flooding and erosion modelling</p> <ul style="list-style-type: none"> <li>- Develop maps of erosion for FB&amp;H territory (this is being done with IPA funds and will be completed in 2020)., and update the existing erosion map for RS in relevant high erosion risk areas</li> <li>- Develop Cadastre of torrential basins</li> <li>- Develop flash flood cadastre and flash flood susceptibility models, in line with the methodology for flash flood susceptibility modelling implemented on the Vrbas River Basin, for all other target basins.</li> </ul>	GCF	429,000	RFP	Prior	N/A	Y1-Q2	Y1-Q2	Y1-Q2	Y1-Q2	Y1-Q2	



1	2	3	3	4	5	6	7	8	9	10	11	
Ref. No.	Description of Assignment	Source of Funds	Estimated Cost	Selection Method	Review by AE (Prior / Post)	Issuance of Expression of Interest	Finalize shortlist and issue RFP	Proposals Submission Date	Complete Technical Evaluation	Complete Financial Evaluation	Negotiate and Award	Comment
	<ul style="list-style-type: none"> <li>- Identify anti-erosion measures including structural and non-structural measures on individual river basin areas.</li> <li>- Develop finalized torrential hazard and risk maps for all target basins</li> </ul>											
61.	<p>Consultancy in HPP reservoir flood and operation modelling</p> <ul style="list-style-type: none"> <li>- Develop guidance, methodologies and specifications for the inclusion of HPP operations in flood hazard modelling and mapping.</li> <li>- Development of reservoir operation models for all target basins and inclusion within basin flood models.</li> <li>- Review the existing reservoir optimization models for Adriatic sub-basins - Neretva and Trebisnjica and update/develop a basin model,</li> <li>- incorporate groundwater modelling into basin model.</li> <li>- Develop optimized operating rules to significantly reduce the height of the flood wave downstream from Mostar.</li> </ul>	GCF	160,000	RFP	Prior	N/A	Y1-Q3	Y1-Q3	Y1-Q3	Y1-Q3	Y1-Q3	
62.	Consultancy for development of Flood Forecasting and Early Warning System	GCF	335,000	RFP	Prior	N/A	Y1-Q4	Y1-Q4	Y1-Q4	Y1-Q4	Y1-Q4	



1	2	3	3	4	5	6	7	8	9	10	11	
Ref. No.	Description of Assignment	Source of Funds	Estimated Cost	Selection Method	Review by AE (Prior / Post)	Issuance of Expression of Interest	Finalize shortlist and issue RFP	Proposals Submission Date	Complete Technical Evaluation	Complete Financial Evaluation	Negotiate and Award	Comment
	<ul style="list-style-type: none"> <li>- Hydrological Forecast Model development – Neretva and Trebišnjica</li> <li>- Hydraulic Forecast Model development – Neretva and Trebišnjica (</li> <li>- Development of last-mile communication models</li> </ul>											
63.	International Consultancy for Forecasting and early warning– Agriculture: <ul style="list-style-type: none"> <li>- Development of new climate information products for the agricultural sector and delivery of these products to the farmers.</li> </ul>	GCF	130,000	RFP	Prior	N/A	Y2-Q4	Y2-Q4	Y2-Q4	Y2-Q4	Y2-Q4	
64.	Establishment of CBEWS in identified communities, including capacity building for responsible municipal personnel. Developing last mile warning and communication system <ul style="list-style-type: none"> <li>- Technologies implementation</li> </ul>	GCF	210,000	RFP	Prior	N/A	Y2-Q4	Y2-Q4	Y2-Q4	Y2-Q4	Y2-Q4	

Competitive Methods are the following:

- Quality Cost Based Selection method (QCBS)
- Quality Based Selection (QBS)
- Fixed Budget Selection (FBS)
- Least Cost Selection (LCS)
- Consultants Qualifications Selection (CQS)
- Individual Consulting (IC)





## Annex G: Terms of References for Project Board and Project Team

### Requirements to serve on the Project Board:

- Agree to the Terms of Reference of the Board and the rules on protocols, quorum and minuting.
- Meet annually; at least once.
- Disclose any conflict of interest in performing the functions of a Project Board member and take all measures to avoid any real or perceived conflicts of interest. This disclosure must be documented and kept on record by UNDP.
- Discharge the functions of the Project Board in accordance with UNDP policies and procedures.
- Ensure highest levels of transparency and ensure Project Board meeting minutes are recorded and shared with project stakeholders.

### Responsibilities of the Project Board:

- ✓ Consensus decision making:
  - The project board provides overall guidance and direction to the project, ensuring it remains within any specified constraints, and provides overall oversight of the project implementation.
  - Review project performance based on monitoring, evaluation and reporting, including progress reports, risk register and the combined delivery report;
  - The project board is responsible for making management decisions by consensus.
  - In order to ensure UNDP's ultimate accountability, Project Board decisions should be made in accordance with standards that shall ensure management for development results, best value money, fairness, integrity, transparency and effective international competition.
  - In case consensus cannot be reached within the Board, the UNDP representative on the board will mediate to find consensus and, if this cannot be found, will take the final decision to ensure project implementation is not unduly delayed.
- ✓ Oversee project execution:
  - Agree on project manager's tolerances as required, within the parameters outlined in the project document, and provide direction and advice for exceptional situations when the project manager's tolerances are exceeded.
  - Appraise annual work plans prepared by the Implementing Partner for the Project; review combined delivery reports prior to certification by the implementing partner.
  - Address any high-level project issues as raised by the project manager and project assurance;
  - Advise on major and minor amendments to the project within the parameters set by UNDP and the donor and refer such proposed major and minor amendments to the UNDP BPPS/VF Executive Coordinator (and the GCF Secretariat and/or GCF Board, as required by GCF policies);
  - Provide high-level direction and recommendations to the project management unit to ensure that the agreed deliverables are produced satisfactorily and according to plans.
  - Track and monitor co-financed activities and realisation of co-financing amounts of this project.
  - Approve the Inception Report, Baseline Report, GCF APRs, Interim Independent Evaluation and terminal evaluation reports, other reports that GCF may require.
  - Ensure commitment of human resources to support project implementation, arbitrating any issues within the project.
- ✓ Risk Management:
  - Provide guidance on evolving or materialized project risks and agree on possible mitigation and management actions to address specific risks.



- Review and update the project risk register and associated management plans based on the information prepared by the Implementing Partner. This includes risks related that can be directly managed by this project, as well as contextual risks that may affect project delivery or continued UNDP compliance and reputation but are outside of the control of the project. For example, social and environmental risks associated with co-financed activities or activities taking place in the project's area of influence that have implications for the project.
- Address project-level grievances.
- ✓ Coordination:
  - Ensure coordination between various donor and government-funded projects and programmes.
  - Ensure coordination with various government agencies and their participation in project activities.

#### **Terms of Reference of Technical Services to be provided by UNDP:**

- These staff costs cannot include any oversight functions as this would duplicate GCF implementation functions paid by the GCF Fee.
- All technical services must be specified and known and cannot refer to anticipated or expected technical support services.
- The qualifications necessary to undertake these technical services must be included in the TOR.
- The UNDP-BPPS RTA and the PTA must approve the technical services included in the TOR (and the qualifications). The RTA and the PTA have the full authority to edit, revise, and/or refuse the technical services if they are contrary to GCF policy.

#### **Terms of Reference for Key Project Staff**

##### **Project Manager**

##### Background

The Project Manager (PM) will be appointed by the project implementing partner. The PM will be responsible for the overall management of the Project, including the mobilisation of all project inputs, supervision over project staff, consultants and sub-contractors.

##### Duties and Responsibilities

- Manage the overall conduct of the project.
- Plan the activities of the project and monitor progress against the approved workplan.
- Execute activities by managing personnel, goods and services, training and low-value grants, including drafting terms of reference and work specifications, and overseeing all contractors' work.
- Monitor events as determined in the project monitoring plan, and update the plan as required.
- Provide support for completion of assessments required by UNDP, spot checks and audits.
- Manage requests for the provision of UNDP financial resources through funding advances, direct payments or reimbursement using the FACE form.
- Monitor financial resources and accounting to ensure the accuracy and reliability of financial reports.
- Monitor progress, watch for plan deviations and make course corrections when needed within project board-agreed tolerances to achieve results.
- Ensure that changes are controlled, and problems addressed.
- Perform regular progress reporting to the project board as agreed with the board, including measures to address challenges and opportunities.
- Prepare and submit financial reports to UNDP on a quarterly basis.



- Manage and monitor the project risks – including social and environmental risks - initially identified and submit new risks to the Project Board for consideration and decision on possible actions if required; update the status of these risks by maintaining the project risks log;
- Capture lessons learned during project implementation.
- Prepare revisions to the multi-year workplan, as needed, as well as annual and quarterly plans if required.
- Prepare the inception report no later than one month after the inception workshop.
- Ensure that the indicators included in the project results framework are monitored annually in advance of the GCF APR submission deadline so that progress can be reported in the GCF APR.
- Prepare the GCF APR;
  - Assess major and minor amendments to the project within the parameters set by UNDP-BPPS/VF Programme Support, Oversight and Compliance Hub;
  - Monitor implementation plans including the gender action plan, stakeholder engagement plan, and any environmental and social management plans;
  - Monitor and track progress against the GCF Core indicators.
  - Support the Mid-term review and Terminal Evaluation process.

#### Required skills and expertise

- A university degree (MSc or PhD) in a subject related to natural resource management or environmental sciences.
- At least 5 years of demonstrable project/programme management experience.
- At least 5 years of experience working with ministries, national or provincial institutions that are concerned with natural resource and/or environmental management.

#### Competencies

- Strong leadership, managerial and coordination skills, with a demonstrated ability to effectively coordinate the implementation of large multi-stakeholder projects, including financial and technical aspects.
- Ability to effectively manage technical and administrative teams, work with a wide range of stakeholders across various sectors and at all levels, to develop durable partnerships with collaborating agencies.
- Ability to administer budgets, train and work effectively with counterpart staff at all levels and with all groups involved in the project.
- Ability to coordinate and supervise multiple Project Implementation Units in their implementation of technical activities in partnership with a variety of subnational stakeholder groups, including community and government.
- Strong drafting, presentation and reporting skills.
- Strong communication skills, especially in timely and accurate responses to emails.
- Strong computer skills, in particular mastery of all applications of the MS Office package and internet search.
- Strong knowledge about the political and socio-economic context related to the Indonesian protected area system, biodiversity conservation and law enforcement at national and subnational levels.
- Excellent command of English and local languages.

#### **Project Officer**

Under the overall supervision and guidance of the Project Manager, the Project Officer will have the responsibility for project monitoring and evaluation. The M&E Officer will work closely with the Communications Officer on knowledge management aspects of the project. Specific responsibilities will include:

#### Duties and Responsibilities

1. Coordinate the overall implementation of GCF FRM project activities
2. Providing technical advice and support to the implementation of the Project activities
3. Monitoring, evaluation and reporting of the overall Project deliverables
4. Knowledge management and gender equality



### **1. Coordinate the overall implementation of the GCF FRM Project Activities**

- Promote overall integration of the project into the country's activities, policies, and plans;
- Prepare annual work plans with indicative scheduling of identified main outputs and activities as guidance documents for the formulation and review of annual work plans;
- Provide guidance and reviews of technical specifications of project outputs and activities;
- Supervise personnel and subcontractors engaged in delivering aspects of the project's work plans;
- Organize and coordinate project activities such as workshops, studies and publications, subcontracts, equipment, and administrative support;
- Encourage shared learning with national partners;
- Provide secretariat service to the Project Board (PB), ensuring that all PB representatives receive relevant information ahead of meetings; taking notes during as well as circulating notes after the PB meetings;
- Ensure close coordination between other relevant projects and programmes; both in-country and those led by the partners and other organizations;
- Facilitate coordination and other support from consultants hired for the Project, and for any relevant missions directly related to the Project;
- Ensure that the GCF FRM produces the outcomes at the required standards and within the specified cost and time limits.

### **2. Providing technical advice and support to the implementation of the Project activities**

- In consultation with the partners prepare TORs for consultants and comment on their reports
- Supports the development of energy efficiency, renewable energy and energy management policies and monitoring-verification- reporting mechanisms;
- Co-develop relevant policy briefs, lessons learned documents, communication materials, website updates, and other relevant publications.

### **3. Monitoring, evaluation and reporting of the overall Project deliverables**

- Carry out regular follow-up and monitoring of implementation activities;
- Carry out regular monitoring and reporting on risk and mitigation measures;
- Ensure timely preparation and submission of required reports, including technical and financial reports to relevant parties as well as bi-annual progress and expenditure reports, as per the requirements of the donors;
- Provide regular updates on the Project's progress to key stakeholders according to the communication plan.

### **4. Knowledge management and gender equality**

- Coordinate wide dissemination and visibility of project achievements;
- Coordinate dissemination of information and knowledge management within the team for effective project implementation;
- Coordinate the transfer of projects deliverables, documents, files, equipment, and materials to national beneficiaries;
- Ensures gender is effectively mainstreamed throughout the project activities, work plans, budgets, reports, researches, analyses and, where specifically relevant, analyzed in detail;
- Ensures knowledge on gender equality is incorporated in Project knowledge management activities and products.

#### Required skills and expertise

- MSc degree (five years studies) in environmental/ technical/ development/ management/ economic/international relations/related studies or other related disciplines.
- BSc degree (three years studies) with additional three years of experience could be accepted in lieu of Advanced degree

#### Competencies

- At least 3 years' of relevant project experience in international organisations (or 5 with BSc degree);



- -Demonstrated experience in support to managing complex projects or in managing projects component
- Demonstrated experience in working with government, donors and international organisations;
- Experience in co-operating with all local stakeholders including government officials, health care institutions, NGOs, and private sector;
- Experience in managing tasks of similar complexity and nature
- -Displays cultural, gender, religion, race, nationality and age sensitivity and adaptability
- -Treats all people fairly without favoritism
- -Ability to identify discrimination, address it, and maintain an enabling working environment based on fairness, respect and freedom from any forms of harassment and abuse.
- -Understand the language associated with gender, equity, inclusion, and diversity
- -Excellent understanding of environmental issues in B&H (watermanagement sector)
- -Good understanding of post-war and post-socialist transition context, poverty, and local development support strategies
- Knowledge of B&H regulations and requirements on procurement, tendering and contracting.
- Experience in the usage of computers and office software packages (MS Word, Excel, etc) and advance knowledge of spreadsheet and database packages, advance knowledge of automated procurement systems, experience in handling of web-based management systems.

#### **Project Safeguards Officer**

Under the overall supervision and guidance of the Project Manager, the Environmental and Social Safeguards Officer will have the responsibility for the implementation of the project's environmental and social management plan/framework, other SES instruments, and overall compliance with the UNDP SES policy and other applicable legal and institutional frameworks (including national law). The Safeguards Officer will work closely with the M&E Officer, Gender Officer and others on related aspects of project reporting, monitoring, evaluation and communication.

##### **Summary of Key Functions:**

1. Provide inputs for implementation of Project's activities
2. Provide support to the Project Manager in activities related to the safeguard procedures, quality control, from formulation to implementation
3. Support in creation of strategic partnerships
4. Facilitation of knowledge building and knowledge sharing within the Project
5. Support knowledge management and gender equality mainstreaming within the project

#### **Inputs to implementation of Project's activities**

- In cooperation with Project Manager, supervises and ensures the timely implementation of the project relevant activities as scheduled in the working plan
- Prepares a detailed work plan for the project and draft terms of reference for the subcontracts in cooperation with Project Manager and in consultation with the Project Board;
- In cooperation with Project Manager, develops the scope of the work and ToRs and other procurement documentation required to identify and facilitate recruitment of experts and consultants;
- Identifies and hire/subcontract the local experts and institutions (in cooperation with Project Manager and in consultation with the Project Board);
- In cooperation with Project Manager, supervise local consultants who are recruited to provide technical assistance
- Takes part in development of technical and non-technical guidance documents for all studies and assessment undertaken as part of the project;
- Undertakes activities to improve hydrometric monitoring network;
- Coordinates activities on flood risk management (flood hazard/risk maps, flood forecasting early warning system);
- Oversees implementation of structural and non-structural interventions.



- Oversees implementation of SESP and ESMP.
- Identifies training needs, organizes and oversees trainings;
- In cooperation with Project Manager, facilitate the workshops and trainings needed during the Project;
- Liaises with the relevant ministries, local and international research institutes, NGOs, and other relevant institutions in order to involve their staff in project activities, and to gather and disseminate information relevant to the Project;
- In cooperation with Project Manager, prepares periodic progress reports of the Project closely tracking and monitoring fulfilment of all project indicators identified;
- In cooperation with Project Manager, summarizes and synthesizes the results of the Project;
- Identifies the follow up activities and mobilizes other resources at the extent possible;
- Identifies and ensures synergy with other relevant ongoing / new projects.
- Collaborates with all relevant stakeholders and the Project Board and other partners to ensure their involvement in the project's activities

**Provide inputs to the Project Manager in project activities related to the safeguarding, quality control, from formulation to implementation**

- Provides inputs for designing and formulation of work plans, financial and procurement plans within the area of responsibility, translating project goals into specific interventions to be implemented by the Project;
- Ensures financial and substantive monitoring and evaluation of the project activities, identification of operational and financial risks and problems and development of solutions;
- Provides inputs for organization and implementation of external evaluation of the project;
- Monitors and analyses the risks for project implementation and proposes/conducts timely adjustments; if needed;
- Take part in evaluation of the project impact;
- In cooperation with Project Manager, prepares periodic progress reports of the Project;
- In cooperation with Project Manager, summarizes and synthesizes the results of the Project.

**Monitoring, evaluation and reporting of the overall Project deliverables**

- Carry out regular follow-up and monitoring of implementation activities;
- Carry out regular monitoring and reporting on risk and mitigation measures;
- Ensure timely preparation and submission of required reports, including technical and financial reports to relevant parties as well as bi-annual progress and expenditure reports, as per the requirements of the donors;
- Provide regular updates on the Project's progress to key stakeholders according to the communication plan.

**Knowledge management and gender equality**

- Coordinate wide dissemination and visibility of project achievements;
- Coordinate dissemination of information and knowledge management within the team for effective project implementation;
- Coordinate the transfer of projects deliverables, documents, files, equipment, and materials to national beneficiaries;
- Ensures gender is effectively mainstreamed throughout the project activities, work plans, budgets, reports, researches, analyses and, where specifically relevant, analyzed in detail;
- Ensures knowledge on gender equality is incorporated in Project knowledge management activities and products.

The Project Safeguards Officer will be recruited based on the following qualifications:

- MSc degree (five years studies) in environmental/ technical/ development/ management/ economic/international relations/related studies or other related disciplines.
- BSc degree (four years studies) with additional two years of experience could be accepted in lieu of Advanced degree
  - At least 3 years' of relevant project experience in international organisations (or 5 with BSc degree);
  - Demonstrated experience in support to managing complex projects or in managing projects component
  - Demonstrated experience in working with government, donors and international organisations;
  - Experience in co-operating with all local stakeholders including government officials, health care institutions, NGOs, and private sector;
  - Experience in managing tasks of similar complexity and nature
- Very good inter-personal skills and high level of professional integrity



- Proficiency in computer application and information technology.
- Excellent language skills in English (writing, speaking and reading) and in local languages.

#### **Project Associate**

Under the guidance and supervision of the Project Manager, the Project Assistant will carry out the following tasks:

- Assist the Project Manager in day-to-day management and oversight of project activities;
- Assist the M&E officer in matters related to M&E and knowledge resources management;
- Assist in the preparation of progress reports;
- Ensure all project documentation (progress reports, consulting and other technical reports, minutes of meetings, etc.) are properly maintained in hard and electronic copies in an efficient and readily accessible filing system, for when required by PB, TAC, UNDP, project consultants and other PMU staff;
- Provide PMU-related administrative and logistical assistance.

The Project Assistant will be recruited based on the following qualifications:

- A Bachelors degree or an equivalent qualification;
- At least three years of work experience preferably in a project involving biodiversity conservation, natural resource management and/or sustainable livelihoods. Previous experience with UN project will be a definite asset;
- Very good inter-personal skills;
- Proficiency in the use of computer software applications especially MS Word and MS Excel.
- Excellent language skills in English (writing, speaking and reading) and in local languages



**Annex H: UNDP Social and Environmental Screening Procedure (SESP)**





ASM-11210 - SESP (Social and Environmental Screening Procedure)

**Procedure Year:** 2024

**Procedure Status:** Confirmed by PAC/Board

**Procedure Type:** Design

**Record Owner:** Alisa Grabus

**Created by:** Alisa Grabus,9/26/2024, 7:28 AM

**Overall Project Risk Categorization:**

Moderate

**Procedure Name:** ASM-11210

**Procedure Department:** CO - Bosnia & Herzegovina- Sarajevo

**Last Modified by:** Raduska Cupac,10/9/2024, 10:27 AM

RELATED PROJECTS(1)					
NAME	DEPARTMENT	STATUS	ATLAS PROJECT NUMBER	START DATE	END DATE
01003140	CO - Bosnia & Herzegovina- Sarajevo	Draft		10/17/2024	10/17/2030

RELATED QAS(1)		
PARENT PROCEDURE	PROCEDURE TYPE	PROCEDURE YEAR
ASM-11039	Quality Assurance - Design	2024

RELATED OPPORTUNITIES(1)		
NAME	STAGENAME	STATUS
GCF Adaptation	A-Hard Pipeline (90%)	Funding Approved

Triggered Requirements:

Assessment

Status: Complete

Is assessment required? (Question only required for Moderate, Substantial and High Risk projects)



Targeted assessment(s) required?	No
If yes, please indicate the status of required assessment(s)?	
Comments (for instance, please indicate the assessment type) (10000 Characters maximum)	
Environmental and Social Impact Assessment (ESIA) required?	No
If yes, please indicate the status?	
Comments (10000 Characters maximum)	
Strategic Environmental and Social Assessment (SESA) required?	No
If yes, please indicate the status?	
Comments (10000 Characters maximum)	

Management Plans	Status: Complete
Are management plans required? (Question only required for Moderate, Substantial and High Risk projects)	
Targeted management plan(s) required?	No
If yes, please indicate the status of required management plan(s)?	
Comments (for instance, please indicate the type of management plan) (10000 Characters maximum)	
Environmental and Social Management Plan (ESMP) required?	No
If yes, please indicate the status?	
Comments (10000 Characters maximum)	



Environmental and Social Management Framework (ESMF) required?

No

If yes, please indicate the status?

Comments (10000 Characters maximum)

#### Identified Risks & Treatments:

**Principle & Standard:** Human Rights

**Risk Significance:** ☐ Moderate

**Triggered Principles:** ☒

**Risk Significance:** ☐ Moderate

##### Event:

Lack of capacity of duty bearers to meet their obligations under the project, which could lead to environmental or social risks such as OHS issues, infrastructure failure, poor uptake or understanding by users, and grievances due to poor infrastructure design, delivery, operation or maintenance, and/or poor engagement with communities.

##### Causes:

There is currently a lack of technical and financial capacity in BiH to design, operate and maintain climate resilient flood protection infrastructure, there is currently a lack of engagement with private and productive sectors in climate-responsive flood risk management, staff turnover can be high and communities do not have adequate understanding of the risks.

##### Impact:

Poor community engagement can increase the risk of theft or vandalism of equipment, reduced understanding or trust in Flood Forecasting Early Warning Systems (FFEW), etc.



RELATED TREATMENTS(1)				
ACTIVITIES FOR TREATMENT	EXPECTED EFFECT	TIME PLAN FOR COMPLETE	STATUS	COMMENTS
Using previous capacity assessments and consultation with agencies, the project identified gaps and weaknesses. Capacity building has been incorporated into a number of the proposed activities. During the project, further gender sensitive capacity needs assessments to identify any specific needs of government, institutions and communities will be undertaken to assist in the development and implementation of training programs and training materials. A Stakeholder Engagement Plan has been prepared. The SEP will be implemented, reviewed regularly, and updated as required. A Gender Analysis and Action Plan has been prepared. An ESMP has also been prepared.		10/17/2030	Not Started	

**Principle & Standard:** Gender Equality and Women's Empowerment

**Risk Significance:** ■ Moderate

**Triggered Principles:** ✓

**Risk Significance:** ■ Moderate

**Event:**

Given the level of gender-based violence (GBV) that already exists in BiH, there is a risk that any shifts in power balances that the project could cause might exacerbate GBV, including sexual exploitation, abuse, and harassment (SEAH).

**Causes:**

In Bosnia and Herzegovina (BiH), gender-based violence is widespread and underreported – a 2013 survey reported that every second woman had experienced some form of gender-based violence during her adult life. The LGBTI community in BiH is for the most part absent from the public sphere due to pervading hostile attitudes among the majority of the population, fear for physical safety, and discrimination by family, friends, and coworkers.

**Impact:**

Shifts in power balances that the project could cause might exacerbate GBV, including sexual exploitation, abuse, and harassment (SEAH).

RELATED TREATMENTS(1)				
ACTIVITIES FOR TREATMENT	EXPECTED EFFECT	TIME PLAN FOR COMPLETE	STATUS	COMMENTS
<p>Gender issues have been included in the ESAR/ESMP</p> <p>A Gender Assessment and Gender Action Plan was prepared during FP development.</p> <p>Implementation of the GAP required.</p> <p>The project will adhere to UNDP's policies for protection against Harassment, Sexual Harassment, Discrimination and abuse of Authority, as well as special measures for protection from sexual exploitation and sexual abuse.</p> <p>UNDP will request that contractors, suppliers, and partners adhere to zero tolerance for SEAH conduct and commit to taking adequate action if faced with SEAH allegations, in the absence of which, contractual arrangements can be terminated.</p> <p>Gender issues should be considered in SESA (see next risk).</p>		10/17/2030	Not Started	

**Risk Significance:** ■ Moderate

**Event:**

BiH has are significant gender inequalities, fueled by traditional gender roles, therefore the Project could potentially reproduce discriminations against women based on gender, especially regarding participation in design and implementation.

**Causes:**

BiH has significant gender inequalities, fueled by traditional gender roles.

**Impact:**

Discriminations against women based on gender, especially regarding participation in implementation.

RELATED TREATMENTS(1)				
ACTIVITIES FOR TREATMENT	EXPECTED EFFECT	TIME PLAN FOR COMPLETE	STATUS	COMMENTS
<p>A Gender Assessment and Gender Action Plan was prepared during FP development.</p> <p>Gender issues have been included in the ESAR/ESMP</p> <p>During implementation, deeper stakeholder consultation will need to be undertaken to assess the components in relation to gender, age and other important matters. The Gender Analysis and Action Plan should be updated as required based on stakeholder consultation during implementation</p> <p>A Grievance Redress Mechanism will be operationalised.</p>		10/17/2030	Not Started	

**Principle & Standard:** Accountability

**Risk Significance:** ■ Moderate

**Triggered Principles:** ✓

**Risk Significance:** ■ Moderate

**Event:**

The project will be supporting planning and policy reform to encourage a "living with floods" approach. There is a risk that affected stakeholders may raise grievances.

**Causes:**

Supporting planning and policy reform to encourage a "living with floods" approach.

**Impact:**

Affected stakeholders may raise grievances.

RELATED TREATMENTS(1)				
ACTIVITIES FOR TREATMENT	EXPECTED EFFECT	TIME PLAN FOR COMPLETE	STATUS	COMMENTS
Implement SEP to engage community. GRM to be operationalised to address any grievances		10/17/2030	Not Started	

**Risk Significance:** ■ Moderate

**Event:**

Potential support of non-compliant Hydro Power Plants (HPPs): The project could directly or indirectly support HPPs that operate in a manner inconsistent with the Social and Environmental Standards (SES).

**Causes:**

Project activities related to modelling, policy, or flood management: Although the project does not focus on HPPs, certain interventions may influence or involve HPPs within the project's area of influence.

**Impact:**

Non-compliance with SES: Supporting HPPs that operate inconsistently with SES could lead to regulatory, environmental, or social compliance issues, potentially damaging the project's reputation and causing legal or operational challenges.

RELATED TREATMENTS(1)				
ACTIVITIES FOR TREATMENT	EXPECTED EFFECT	TIME PLAN FOR COMPLETE	STATUS	COMMENTS
The ESAR discusses the involvement of HPPs in the project It identifies that all activities associated with the project eg cofinanced activities, are required to meet the UNDP SES. Both GCF and co-financed activities are to be managed through the		10/17/2030	Not Started	





RELATED TREATMENTS(1)				
ACTIVITIES FOR TREATMENT	EXPECTED EFFECT	TIME PLAN FOR COMPLETE	STATUS	COMMENTS
same Project Board/PMU to facilitate application of the same systems/standards, this will include application of UNDP SES. The project includes measures to ensure that HPP in the project's framework / target areas are brought into the Flood Risk Management frameworks and to enhance climate resilience of the operations of HPPs through improved operational rules. Those HPPs directly involved in / supported by the project's activities will be requested to agree to the conditions in the ESAR and sign a Social and Environmental Commitment Plan (SECP) or letter (prior to ProDoc signature).				

**Principle & Standard:** Accountability

**Risk Significance:** ■ Moderate

**Triggered Principles:** ✓

**Risk Significance:** ■ Moderate

**Event:**

The project will be supporting planning and policy reform to encourage a "living with floods" approach. There is a risk that affected stakeholders may raise grievances.

**Causes:**

Supporting planning and policy reform to encourage a "living with floods" approach.

**Impact:**

Affected stakeholders may raise grievances.





RELATED TREATMENTS(1)				
ACTIVITIES FOR TREATMENT	EXPECTED EFFECT	TIME PLAN FOR COMPLETE	STATUS	COMMENTS
Implement SEP to engage community. GRM to be operationalised to address any grievances		10/17/2030	Not Started	

**Risk Significance:** ■ Moderate

**Event:**

Potential support of non-compliant Hydro Power Plants (HPPs): The project could directly or indirectly support HPPs that operate in a manner inconsistent with the Social and Environmental Standards (SES).

**Causes:**

Project activities related to modelling, policy, or flood management: Although the project does not focus on HPPs, certain interventions may influence or involve HPPs within the project's area of influence.

**Impact:**

Non-compliance with SES: Supporting HPPs that operate inconsistently with SES could lead to regulatory, environmental, or social compliance issues, potentially damaging the project's reputation and causing legal or operational challenges.

RELATED TREATMENTS(1)				
ACTIVITIES FOR TREATMENT	EXPECTED EFFECT	TIME PLAN FOR COMPLETE	STATUS	COMMENTS
The ESAR discusses the involvement of HPPs in the project It identifies that all activities associated with the project eg cofinanced activities, are required to meet the UNDP SES. Both GCF and co-financed activities are to be managed through the same Project Board/PMU to facilitate application of the same systems/standards, this will include application of UNDP SES. The project includes measures to ensure that HPP in the project's framework / target areas are brought into the Flood Risk Management		10/17/2030	Not Started	



RELATED TREATMENTS(1)				
ACTIVITIES FOR TREATMENT	EXPECTED EFFECT	TIME PLAN FOR COMPLETE	STATUS	COMMENTS
frameworks and to enhance climate resilience of the operations of HPPs through improved operational rules. Those HPPs directly involved in / supported by the project's activities will be requested to agree to the conditions in the ESAR and sign a Social and Environmental Commitment Plan (SECP) or letter (prior to ProDoc signature).				

**Principle & Standard:** Standard 1 : Biodiversity Conservation and Sustainable Natural Resource Management

**Risk Significance:** ■ Moderate

**Triggered Principles:** ✓

**Risk Significance:** ■ Moderate

**Event:**

Construction works for levee rehabilitation at the Krupa River site could potentially harm the nearby Hutovo Blato Ramsar wetland.

**Causes:**

The proximity of the construction activities to the protected Ramsar wetland area could lead to accidental disturbances such as pollution, habitat degradation, or altered water flow patterns.

**Impact:**

Damage to the Hutovo Blato Ramsar wetland could result in a loss of biodiversity, disruption of critical habitat for wildlife, and a decline in the ecological health of the wetland, which is recognized internationally for its environmental significance.



RELATED TREATMENTS(1)				
ACTIVITIES FOR TREATMENT	EXPECTED EFFECT	TIME PLAN FOR COMPLETE	STATUS	COMMENTS
As per the EIA laws of BiH, site specific Preliminary Environmental Assessment will be prepared for this project to assess and manage its potentially significant impacts. This site specific assessment prior to commencement of construction to identify the required management measures will ensure that no unacceptable impacts to Ramsar wetland will occur and will integrate all applicable UNDP requirements of Biodiversity Action Plan for activities near critical/sensitive habitat.		10/17/2030	Not Started	

**Risk Significance:** ■ Moderate

**Event:**

The project will be supporting planning and policy reform to encourage a "living with floods" approach. Such reforms may alter land use or development conditions, which could have economic impacts.

**Causes:**

Supporting planning and policy reform to encourage a "living with floods" approach.

**Impact:**

Land use or development conditions might be altered, which could have economic impacts.

RELATED TREATMENTS(1)				
ACTIVITIES FOR TREATMENT	EXPECTED EFFECT	TIME PLAN FOR COMPLETE	STATUS	COMMENTS
Undertake a targetted SESA to determine potential impacts of planning and policy reforms. Implement SEP to engage community and ensure understanding of		10/17/2030	Not Started	



RELATED TREATMENTS(1)				
ACTIVITIES FOR TREATMENT	EXPECTED EFFECT	TIME PLAN FOR COMPLETE	STATUS	COMMENTS
need for improved use and benefits to broader community. GRM to be operationalised to address any grievances.				

**Risk Significance:** ■ Moderate

**Event:**

The Project activities, including EbA, may potentially cause adverse impacts to habitats (modified, natural) and/or ecosystems and ecosystem services. The project includes works within riverbeds, this poses various risks to natural habitats eg. physical disturbance (which could affect habitats or things such as fish spawning grounds), hydrological changes, sediment movement, spill risks (associated with the use of machinery in an aquatic environment).  
Flood management measures could affect the biodiversity and eco-systems eg. via habitat loss, degradation and fragmentation, invasive alien species, overexploitation, hydrological changes, nutrient loading, and pollution.

**Causes:**

Works within riverbeds pose various risks to natural habitats eg. physical disturbance (which could affect habitats or things such as fish spawning grounds), hydrological changes, sediment movement, spill risks (associated with the use of machinery in an aquatic environment).

**Impact:**

Flood management measures implementation affect the biodiversity and eco-systems eg. via habitat loss, degradation and fragmentation, invasive alien species, overexploitation, hydrological changes, nutrient loading, and pollution.

RELATED TREATMENTS(1)				
ACTIVITIES FOR TREATMENT	EXPECTED EFFECT	TIME PLAN FOR COMPLETE	STATUS	COMMENTS
As part of the development of the project, a number of studies have been undertaken to better identify risks and eliminate or develop mitigation measures. These studies include, but were not be limited to: hydrology and hydraulic assessments, broad environmental baseline and identification of sensitive, critical habitats, socio-economic, and		10/17/2030	Not Started	



RELATED TREATMENTS(1)				
ACTIVITIES FOR TREATMENT	EXPECTED EFFECT	TIME PLAN FOR COMPLETE	STATUS	COMMENTS
<p>legal requirements.</p> <p>An Environmental and Social Assessment Report (ESAR) has been prepared based on desktop information and field observations of representative sites. The ESAR includes a safeguards management instrument, Environmental and Social Management Plan (ESMP). The ESMP was developed based on the findings of the (ESAR).</p> <p>In addition, the detailed design of the specific projects will be based on the Guidelines for nature-friendly stabilization of the riverbed and riparian areas that will be elaborated within the project. As per the EIA laws of BiH, site specific Preliminary Environmental Assessments will be prepared for all river-works and to assess and manage all of their potentially significant impacts</p>				

**Risk Significance:** ■ Low

**Event:**

There is a risk that the areas designated for Ecosystem-based Adaptation (EbA), such as those approximating reforestation, could possibly be harvested in the future.

**Causes:**

The areas being planted are large and could be perceived as potential resources for timber or other materials, leading to a risk that future decisions might favor harvesting over conservation.

**Impact:**

If these areas are harvested, it would undermine the goals of the EbA project, potentially leading to loss of ecological benefits, disruption of ecosystem services, and a negative impact on the long-term sustainability and success of the project.



RELATED TREATMENTS(1)				
ACTIVITIES FOR TREATMENT	EXPECTED EFFECT	TIME PLAN FOR COMPLETE	STATUS	COMMENTS
<p>Revegetation/Reforestation Management plans will be developed for the EbA areas. These will be based on catchment/flood management, not forestry for timber eg species planted will be appropriate for the area ie local species to be used and selection of tree species for planting along river margins will be guided by an agri-forestry study prepared for the Vrbas River Basin flood risk reduction.</p> <p>Project includes planning and policy changes, such elements will incentivise the protection and conservation of forests. An SESA will be undertaken to assess potential adverse impacts of plan and policy work.</p>		10/17/2030	Not Started	

**Principle & Standard:** Standard 2: Climate Change and Disaster Risks

**Risk Significance:** ■ Moderate

**Triggered Principles:** ✓

**Risk Significance:** ■ Moderate

**Event:**

The outcomes of the project, which involve natural systems such as rivers, floodplains, and forests, could be adversely affected by climate change impacts.

**Causes:**

Climate change can exacerbate extreme climatic conditions, leading to increased landslides, erosion, flooding, or other weather-related events. Flood mitigation interventions in these areas may not be resilient enough to withstand these changes, making them more vulnerable to failure or reduced effectiveness.



**Impact:**

Susceptibility to climate change impacts could compromise the project's effectiveness, leading to potential failure of flood mitigation measures, loss of project investments, and increased vulnerability of communities and ecosystems to climate re hazards.

RELATED TREATMENTS(1)				
ACTIVITIES FOR TREATMENT	EXPECTED EFFECT	TIME PLAN FOR COMPLETE	STATUS	COMMENTS
Climate change models and predictions were used to provide a baseline vs future scenario, which were used to establish design criteria ie design takes account of climate risk. Emergency procedures have been outlined in the ESMP and will be developed further if required. Sites have been selected to minimise risk. Climate and hydrological studies have been undertaken to inform designs. ESMP includes mitigation strategies for sediment and erosion		10/17/2030	Not Started	

**Principle & Standard:** Standard 3: Community Health, Safety and Security

**Risk Significance:** ■ Moderate

**Triggered Principles:** ✓

**Risk Significance:** ■ Moderate

**Event:**

There are risks associated with construction activities eg OHS, cultural heritage and COVID19

**Causes:**

The nature of construction work, including site operations and workforce interactions, introduces risks to health, safety, and cultural heritage protection.

**Impact:**

These risks can lead to worker injuries, damage to cultural heritage, and increased spread of COVID-19, affecting project timelines and community safety.

RELATED TREATMENTS(1)				
ACTIVITIES FOR TREATMENT	EXPECTED EFFECT	TIME PLAN FOR COMPLETE	STATUS	COMMENTS
<p>Application of the ESMP along with conforming with labour laws and practices to ensure appropriate OHS practices required to ensure risk remains acceptable.</p> <p>The ESMP includes measures to address UXO and cultural heritage in line with the SES and national laws.</p> <p>COVID safe practices are to be adopted by the project. Compliance with directives of WHO and Ministry of Health must occur and all efforts to reduce the risk of spread will be taken.</p> <p>The ESMP contains actions required for COVID19.</p>		10/17/2030	Not Started	

**Principle & Standard:** Standard 8: Pollution Prevention and Resource Efficiency

**Risk Significance:** ■ Low

**Triggered Principles:**

**Risk Significance:** ■ Low

**Event:**

The proposed project consumes resources, particularly rock, and results in the generation of waste.

**Causes:**

The project requires a large quantity of rock, leading to significant resource consumption and excess material production.

**Impact:**

Overconsumption of rock reduces the availability of this natural resource, which can have long-term environmental and economic consequences.





RELATED TREATMENTS(1)				
ACTIVITIES FOR TREATMENT	EXPECTED EFFECT	TIME PLAN FOR COMPLETE	STATUS	COMMENTS
Procurement plan to consider sustainability issues. The ESMP includes measures to manage waste.		10/17/2030	Not Started	

#### Questionnaire:

Step 1 - Integrate the SES Programming Principles

Status: Complete

Question 1 - How Does the project Integrate the Programming Principles in Order to Strengthen Social and Environmental Sustainability?

**Briefly describe in the space below how the project mainstreams the human rights-based approach (32000 Characters maximum)**

This project is upscaling the existing project UNDP is implementing in Bosnia and Herzegovina, the "Technology Transfer for Climate Resilient Flood Management in Vrbas River Basin". The project addresses the increasing vulnerability of communities and livelihoods to intensified climate-induced hydro-meteorological flood-related disasters and fully enables improvement of environment as "critical pre-requisite for development and enjoyment of the human rights"1). As climate change issues are globally recognized as a main threat to human rights, the project that addresses climate change provides a range of direct and indirect implications for effective enjoyment of human rights.

In general, the project will provide the technical assistance to ensure that flood risk management is undertaken in an integrated manner that secures the lives, livelihoods and assets of the most vulnerable people in BiH and reduces their susceptibility to climate change-induced flood risk that they have limited coping mechanisms to withstand. That includes an increased generation and use of climate data to reduce vulnerability to flood related disasters, considering flood hazard, risk and vulnerability information for strategic management and sound decision making for climate induced flood management, protocols for Flood Forecasting and Early Warning System (FFEWS) and definition of clear communication with information access ensured to vulnerable communities. Through the establishment of a fully functioning national FFEWS, the project will reach the entire population of BiH to reduce the vulnerability to climate induced natural disasters, thereby ensuring that remote, socially and economically vulnerable communities receive equal access to warnings and safety information, and through community-based flood response training, will enable all communities to take proactive steps before and during a flood event, to ensure the protection of their assets thus increasing their capacity to cope with extreme impacts from climate induced events.

Certain human rights that will be exercised throughout the project implementation, especially access to information and participation in decision-making, are recognized as essential to good environmental decision-making 2). Considering all the above, it can be concluded that the project will enable a human rights-supportive environment.

By enhancement of the existing legislative and regulatory FRM framework in order to mainstream the climate-induced flood risk management into sectoral



planning for agriculture, hydropower, critical infrastructure and spatial planning, the project will directly protect and save lives, increase food production safety, and flood risk informed local development and land use.

The approach applied within the project will underpin the floodplain planning and development control to achieve basin-wide climate resilience to increasing flood risks and will result in a paradigm shift from uncontrolled floodplain development to climate-risk informed and controlled floodplain usage. Also, the project aims to mainstream eco-system-based approaches (EbA) solutions into policies and regulations and to promote concepts of "making room for water" and/or "living with floods", which includes direct information and benefits from nature-based flood risk measures for people and livelihoods within the main river basins, and enhances natural capital through environmental protection.

Through development of climate risk financing frameworks that anticipates involvement of private sector and development of risk transfer mechanisms the project will ensure the long-term sustainability of flood risk management in BiH. By development and implementation of a national flood insurance scheme and other risk transfer mechanisms, the project will be securing the financial resilience of the population and increase the capacity to recover more quickly from flood disasters.

By the climate-proof flood protection measures including structural measures, the project will increase resilience of the most vulnerable groups which means significant proportion of BiH population considering fact that flood, under climate change conditions, affects the of 924,453 people within the main river basins in Bosnia and Herzegovina, thus reducing the risks of floods, mudflows and landslides including loss of life and assets; securing local livelihoods; and promoting growth and diversification of the local economy.

1), 2) UNEP

**Briefly describe in the space below how the project is likely to improve gender equality and women's empowerment (32000 Characters maximum)**

Over the past years in BiH significant efforts have been made to the implementation of the principle of gender equality. Institutional gender mainstreaming mechanisms have been established within the system of legislative and executive power, at all levels, as a part of an overall effort to improve the status of gender equality (men/boys and women/girls) in Bosnia and Herzegovina. This legislative and policy framework has enabled important legal steps in promoting gender equality, but mainly in the area of reduction of domestic and any other gender-based violence, including prevention and elimination of sexual exploitation, abuse and harassment (SEAH).

Despite these advances in legislative framework, programmes have not been adopted to include measures aimed at achieving gender equality in all areas and at all levels of government and there is inadequate implementation of Article 18 of the Law on Gender Equality in BiH. There persists a lack of gender-disaggregated data on which to make important sectoral decisions, a lack of funding for and hence limited gender mainstreaming in all aspects of sectoral planning.

Gender affects all aspects of vulnerability in societies and there is a need to measure the difference in gender vulnerability to understand who will be at greatest risk in the event of a disaster and evaluate the differential impacts among different groups.

The project is embedding national gender-sensitive socio-economic survey and data collection methods (based on methods developed for the Vrbas project) on which to base flood hazard, risk and vulnerability modelling and mapping. The project will therefore enhance flood hazard, risk and vulnerability modelling and mapping for strategic management and sound decision making for climate induced flood management by ensuring that the vulnerability maps for the river basins are gender sensitive.

Also, development of an integrated centralized and community-based flood forecasting and early warning system (FFEWS) would include the design and implementation of the "Last-Mile" warning dissemination and communication system and the implementation of training and capacity building programme on FFEWS. The project will actively support woman participation in all phases of its development in order to ensure equal access to information and





understanding of system generated flood warnings.

The project aims to apply EbA approaches to flood risk reduction as well as structural interventions. Gender-equality criteria will be applied for projects selection, each of the projects submitted for funding would have to describe their impact on both women and men. The project will ensure that women are empowered to benefit from the structural interventions that will mitigate flood events and will be included in consultations during design to ensure that the structures will not impact negatively on gender equality. With regard to EBA approaches the project will implement agro-forestry which will enable and empower women to diversify agricultural activities, thus building women's resilience to cope with climate change impacts.

Along with a multi-year climate resilient municipal investment plan, the project will formulate and implement the gender sensitive community preparedness plan in selected municipalities (10-12) in Vrbas, Una-Sana and Bosna basins. The preparedness plan will be based on needs assessment of both genders and will comprise of gender sensitive actions including access to knowledge (trainings), information and resources that will increase capability of both genders for timely and effective actions to avoid the loss of lives and to reduce the damages of flooding during the event.

Development of risk financing and transfer mechanisms will be based on detailed socio-economic risk, damages and losses assessment, including

"willingness to pay" surveys as part of proposal development, for a number of sectors and different types of beneficiaries that includes gender aspect.

The Gender Analysis, through stakeholders' engagement and consultation implies that project design and implementation will mainstream gender issues through the stakeholders' direct engagement, monitoring and evaluation processes, defined gender sensitive actions and budget and quantitative and qualitative gender outcomes. Through the Gender Action plan the project will ensure women participation in the capacity buildings and awareness raising through dedicated focus on gender specific activities. During the project duration, project stakeholders and beneficiaries will be continuously informed about zero SEAH tolerance and encouraged to report possible SEAH acts to the appropriate national authorities for criminal prosecution.

**Briefly describe in the space below how the project mainstreams sustainability and resilience (32000 Characters maximum)**

As the project aims to address the increasing vulnerability of BiH communities and livelihoods to intensified climate-induced hydro-meteorological flood-related disasters it is significantly linked to the environmental sustainability. Comparing to the existing flood risk management practice (implementation of hard structural measures, with very low level of flood risk informed development and spatial planning, unreliable forecasting and warning, low preparedness level and flood risk management without considering climate change etc.), the alternative pathway reduces the risk through introduction of an integrated approach, which will embed new skills, methods and technologies to assess the flood hazard, risk and vulnerability strengthening the knowledge systems and institutional capacity to monitor flood risk evolution processes, better understand the risk, and develop a range of risk reduction and management strategies. By implementing this integrated approach environmental risks and threats in general will be reduced. That specifically relates to introduction of EbA approach and promoting of concepts "room for the river" and "life with floods". Based on well-established practice, suitable solutions will be adapted and applied to the BiH context.

The new ecosystem-based flood risk reduction and climate change adaptation methods will be implemented and scaled-up. These approaches and/or interventions encourage natural floodplain functions which can gain additional benefits. Non-structural, ecosystem-based measures include: floodplain reconnection, selective bed raising/riffle creation, wash lands, wetland creation, two-stage channels, re-meandering straightened rivers, land and soil management activities to retain / delay surface flows, woody debris dams on streams and tributaries, flood plain woodland, re-forestation, agro-forestry, creation or re-instatement of a ditch network to promote infiltration (swales, interception ditches, etc), in-channel vegetation management growth to maximize channel roughness. Environmental co-benefits mainly relate to EbA strategies such as agro-forestry will provide water retention functions; regulation of hydrological flows (buffer runoff, soil infiltration, groundwater recharge, maintenance of base flows); natural hazard mitigation (e.g. flood prevention, peak flow reduction, soil erosion and landslide control); increased streambed stabilization resulting in decreased erosion, habitat preservation, and reforestation.



By implementing of the integrated flood risk management approach and methods it is expected significant reduction of losses in in agriculture (approx. 30%). Also, soil pollution following floods will be reduced as well as sediment load and debris carried by flash floods to agricultural land that result in significant losses and abandonment of productive land.

Considering that almost one million of people live in flood prone areas that, by the project implementation will increase resilience to climate-induced floods, life quality in general will be improved. Overall, it is expected that project will have a very positive environmental impact.

**Briefly describe in the space below how the project strengthens accountability to stakeholders (32000 Characters maximum)**

Due to the lack of a State-level framework and the constitutional character of B&H and its entities, the current state of affairs is complex and heterogenic, and the responsibilities for water management rest with the Entities (Ministry for Agriculture, Forestry and Water Management of RS and Ministry for Agriculture, Water Management and Forestry of FB&H). The legal framework is not unified across the country and there are certain discrepancies in legislation between Entities (FB&H and RS) and even among Cantons within FB&H. The two Entities and the Brčko District have relevant political, administrative and legal jurisdiction in their own territories, but the level of coordination and cooperation among them is not as strong as it should be. In general, there is a lack of cross-sectoral policies, strategies and plans and this is a key barrier to effective flood risk management. Furthermore only a few of these sector plans currently takes account of climate change in their formulations. Thus, the legislative framework does not enable effective flood risk management.

The project will identify key private sector players at risk from flooding with an interest in flood risk reduction, these will include critical Infrastructure providers/managers, such as utility companies communications, telecommunications, transportation sector (airlines/air traffic, road and rail operators), energy (hydropower and other than hydropower) and private enterprises such as hotel groups, chamber of commerce or business community, insurance and micro-finance companies. The project will undertake awareness raising on flood risk, flood risk management approaches to fully engage private and public sector.

The institutional capacity gaps and training needs will be assessed, and a revised institutional capacity building plan will be developed under the GCF project to address gaps in human, technical and financial FRM capacities. SOPs, Communication Protocols and Codes of Conduct will be developed for each of the institutions responsible for impact-based FFEWS. In addition, roles of regional and local authorities will be clarified and detailed. "Last-mile" communication protocols will be developed and implemented as part of the FFEWS. Operational maintenance procedures for hydrometric network will be established.

The GCF project will implement ICT-based innovations in the communication of forecasts and advisories; improve the use of historical data and derivations; improve medium and shortrange weather forecasts and longer-term predictions for agriculture (seasonal, decadal etc.) and develop partnerships with the private sector including internet providers or mobile companies that are willing to design tailored information delivery services in collaboration with agribusinesses, farmers' groups and other clients to deliver timely forecasts and advisories to farmers

To enable access and sharing of climate risk information, a centralised information system and knowledge sharing platform will be developed. The flood hazard information system to be developed under the GCF project will consist of an integrated e-Library, databases, information systems and knowledge portal (web knowledge portal to increase awareness, provide interactive hazard maps, with integration with social media and possible mobile application to increase community engagement and allow two-way flow of information.





The flood risk management platform will be a country-wide mechanism for cross-entity, multi-sectoral and inter-disciplinary coordination and policy guidance on flood risk management and risk reduction with public, private and civil society participation involving all concerned entities within B&H. The data sharing platform will coordinate all stakeholder engagement at the entity and local level and will pursue an all-of-society engagement in FRM. It would also have mechanisms for effective dialogue with Local Platforms in place in order to influence, encourage and coordinate local action. In parallel, the country-wide Platform will seek to understand local priorities and issues.

#### Step 2.1 - SES Risk Screening Checklist (Programming Principles)

Status: Complete

##### Human Rights

**P.1 Have local communities or individuals raised human rights concerns regarding the project (e.g. during the stakeholder engagement process, grievance processes, public statements)?** No

**P.2 Is there a risk that duty-bearers (e.g. government agencies) do not have the capacity to meet their obligations in the project?** Yes

**P.3 Is there a risk that rights-holders (e.g. project-affected persons) do not have the capacity to claim their rights?** No

Would the project potentially involve or lead to:

**P.4 Adverse impacts on enjoyment of the human rights (civil, political, economic, social or cultural) of the affected population and particularly of marginalized groups?** No

**P.5 Inequitable or discriminatory impacts on affected populations, particularly people living in poverty or marginalized or excluded individuals or groups, including persons with disabilities?** No

**P.6 Restrictions in availability, quality of and/or access to resources or basic services, in particular to marginalized individuals or groups, including persons with disabilities?** No

**P.7 Exacerbation of conflicts among and/or the risk of violence to project-affected communities and individuals?** No

##### Gender Equality and Women's Empowerment

**P.8 Have women's groups/leaders raised gender equality concerns regarding the project, (e.g. during the stakeholder engagement process, grievance processes, public statements)?** No

Would the project potentially involve or lead to:

**P.9 Adverse impacts on gender equality and/or the situation of women and girls?** No

**P.10 Reproducing discriminations against women based on gender, especially regarding participation in design and implementation or access to opportunities and benefits?** Yes



<b>P.11 Limitations on women's ability to use, develop and protect natural resources, taking into account different roles and positions of women and men in accessing environmental goods and services?</b>	No
<b>P.12 Exacerbation of risks of gender-based violence?</b>	Yes
Sustainability and Resilience: Screening questions regarding risks associated with sustainability and resilience are encompassed by the Standard-specific questions below	
Accountability	
Would the project potentially involve or lead to:	
<b>P.13 Exclusion of any potentially affected stakeholders, in particular marginalized groups and excluded individuals (including persons with disabilities), from fully participating in decisions that may affect them?</b>	No
<b>P.14 Grievances or objections from potentially affected stakeholders?</b>	Yes
<b>P.15 Risks of retaliation or reprisals against stakeholders who express concerns or grievances, or who seek to participate in or to obtain information on the project?</b>	No

Step 2.2 - SES Risk Screening Checklist (Project-Level Standards)	Status: Complete
Standard 1: Biodiversity Conservation and Sustainable Natural Resource Management	
Would the project potentially involve or lead to:	
<b>1.1 Adverse impacts to habitats (e.g. modified, natural, and critical habitats) and/or ecosystems and ecosystem services?</b>	Yes
<b>1.2 Activities within or adjacent to critical habitats and/or environmentally sensitive areas, including (but not limited to) legally protected areas (e.g. nature reserve, national park), areas proposed for protection, or recognized as such by authoritative sources and/or indigenous peoples or local communities?</b>	Yes
<b>1.3 Changes to the use of lands and resources that may have adverse impacts on habitats, ecosystems, and/or livelihoods?</b>	No
<b>1.4 Risks to endangered species?</b>	No
<b>1.5 Exacerbation of illegal wildlife trade?</b>	No
<b>1.6 Introduction of invasive alien species?</b>	Yes
<b>1.7 Adverse impacts on soil?</b>	Yes
<b>1.8 Harvesting of natural forests, plantation development, or reforestation?</b>	Yes



1.9 Significant agricultural production?	No
1.10 Animal husbandry or harvesting of fish populations or other aquatic species?	No
1.11 Significant extraction, diversion or containment of surface or ground water?	Yes
1.12 Handling or utilization of genetically modified organisms/living modified organisms?	No
1.13 Utilization of genetic resources?	No
1.14 Adverse transboundary or global environmental concerns?	No
Standard 2: Climate Change and Disaster Risks	
Would the project potentially involve or lead to:	
2.1 Areas subject to hazards such as earthquakes, floods, landslides, severe winds, storm surges, tsunamis or volcanic eruptions?	Yes
2.2 Outputs and outcomes sensitive or vulnerable to potential impacts of climate change or disasters	Yes
2.3 Direct or indirect increases in vulnerability to climate change impacts or disaster risks now or in the future (also known as maladaptive or negative coping practices)?	Yes
2.4 Increases of greenhouse gas emissions, black carbon emissions or other drivers of climate change?	No
Standard 3: Community Health, Safety and Security	
Would the project potentially involve or lead to:	
3.1 Construction and/or infrastructure development (e.g. roads, buildings, dams)?	Yes
3.2 Air pollution, noise, vibration, traffic, injuries, physical hazards, poor surface water quality due to runoff, erosion, sanitation?	Yes
3.3 Harm or losses due to failure of structural elements of the project (e.g. collapse of buildings or infrastructure)?	No
3.4 Risks of water-borne or other vector-borne diseases (e.g. temporary breeding habitats), communicable and noncommunicable diseases, nutritional disorders, mental health?	Yes
3.5 Transport, storage, and use and/or disposal of hazardous or dangerous materials (e.g. explosives, fuel and other chemicals during construction and operation)?	No
3.6 Adverse impacts on ecosystems and ecosystem services relevant to communities' health (e.g. food, surface water purification, natural buffers from flooding)?	No
3.7 Influx of project workers to project areas?	Yes
3.8 Engagement of security personnel to protect facilities and property or to support project activities?	No



#### Standard 4: Cultural Heritage

Would the project potentially involve or lead to:

4.1 Activities adjacent to or within a Cultural Heritage site?	No
4.2 Significant excavations, demolitions, movement of earth, flooding or other environmental changes?	Yes
4.3 Adverse impacts to sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g. knowledge, innovations, practices)? (Note: projects intended to protect and conserve Cultural Heritage may also have inadvertent adverse impacts)	No
4.4 Alterations to landscapes and natural features with cultural significance?	No
4.5 Utilization of tangible and/or intangible forms (e.g. practices, traditional knowledge) of Cultural Heritage for commercial or other purposes?	No

#### Standard 5: Displacement and Resettlement

Would the project potentially involve or lead to:

5.1 Temporary or permanent and full or partial physical displacement (including people without legally recognizable claims to land)?	No
5.2 Economic displacement (e.g. loss of assets or access to resources due to land acquisition or access restrictions - even in the absence of physical relocation)?	Yes
5.3 Risk of forced evictions?	No
5.4 Impacts on or changes to land tenure arrangements and/or community based property rights/customary rights to land, territories and/or resources?	Yes

#### Standard 6: Indigenous Peoples

Would the project potentially involve or lead to:

6.1 Areas where indigenous peoples are present (including project area of influence)?	No
6.2 Activities located on lands and territories claimed by indigenous peoples?	No
6.3 Impacts (positive or negative) to the human rights, lands, natural resources, territories, and traditional livelihoods of indigenous peoples (regardless of whether indigenous peoples possess the legal titles to such areas, whether the project is located within or outside of the lands and territories inhabited by the affected peoples, or whether the indigenous peoples are recognized as indigenous peoples by the country in question)?	No





6.4 The absence of culturally appropriate consultations carried out with the objective of achieving FPIC on matters that may affect the rights and interests, lands, resources, territories and traditional livelihoods of the indigenous peoples concerned?	No
6.5 The utilization and/or commercial development of natural resources on lands and territories claimed by indigenous peoples?	No
6.6 Forced eviction or the whole or partial physical or economic displacement of indigenous peoples, including through access restrictions to lands, territories, and resources?	No
6.7 Adverse impacts on the development priorities of indigenous peoples as defined by them?	No
6.8 Risks to the physical and cultural survival of indigenous peoples?	No
6.9 Impacts on the Cultural Heritage of indigenous peoples, including through the commercialization or use of their traditional knowledge and practices?	No
Standard 7: Labour and Working Conditions	
Would the project potentially involve or lead to: (note: applies to project and contractor workers)	
7.1 Working conditions that do not meet national labour laws and international commitments?	No
7.2 Working conditions that may deny freedom of association and collective bargaining?	No
7.3 Use of child labour?	No
7.4 Use of forced labour?	No
7.5 Discriminatory working conditions and/or lack of equal opportunity?	No
7.6 Occupational health and safety risks due to physical, chemical, biological and psychosocial hazards (including violence and harassment) throughout the project life-cycle?	Yes
Standard 8: Pollution Prevention and Resource Efficiency	
Would the project potentially involve or lead to:	
8.1 The release of pollutants to the environment due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts?	Yes
8.2 The generation of waste (both hazardous and non-hazardous)?	Yes
8.3 The manufacture, trade, release, and/or use of hazardous materials and/or chemicals?	No
8.4 The use of chemicals or materials subject to international bans or phase-outs?	No
8.5 The application of pesticides that may have a negative effect on the environment or human health?	No



8.6 Significant consumption of raw materials, energy, and/or water?

No

Approval History

**Approval Date:** Wed Oct 09 00:00:00 GMT 2024

**Confirmed Date:** 10/9/2024

**PAC/Board Date:** 9/24/2024

**Approved By:** Raduska Cupac <raduska.cupac@undp.org>

**Confirmed By:** Raduska Cupac <raduska.cupac@undp.org>

**PAC/Board Meeting minutes uploaded:**

STEP NAME	DATE	STATUS	ASSIGNED TO
Confirmed by PAC/Board	2024-10-09 10:27:24	Approved	Raduska Cupac
Cleared for PAC/Board	2024-10-09 09:45:46	Approved	Raduska Cupac
Approval Request Submitted	2024-10-08 11:15:27	Started	Alisa Grabus



Annex I: Environmental and Social Management Plan or Framework (ESMP or ESMF) as relevant

<https://www.greenclimate.fund/document/environmental-and-social-safeguards-ess-report-fp216-scaling-climate-resilient-flood-risk>



I. EXECUTIVE SUMMARY

Bosnia and Herzegovina is particularly vulnerable to extreme precipitation and river basin flooding and results in the highest damages of all natural hazards facing B&H. Increased intensity and variability of rainfall due to climate change have been causing more frequent and intensive floods on the territory of B&H. The main flooding sources in B&H are fluvial, pluvial, torrents and groundwater.

The NDA and Water Entities of Bosnia and Herzegovina with support from UNDP, is formulating a project on adaptation to climate change impacts associated with flooding for submission to the GCF. The project will seek to improve the resilience of vulnerable communities to climate change impacts by scaling up climate resilient flood risk management in Bosnia and Herzegovina.

The project will reduce vulnerability to floods across B&H (pluvial, fluvial and torrential flooding) through improved climate information and establishment of flood forecasting and early warning systems. Improved generation and use of climate information will enable sound decision making and investment into climate resilient flood risk reduction measures.

To achieve this the project will pursue the following outputs:

Output 1: Climate-informed flash flood early warning systems (FFEWS) and an increased generation and use of climate data to reduce vulnerability to flood related disasters.

Output 2: Scaled-up ecosystem-based and non-structural climate resilient flood risk reduction.

Output 3: Climate-proof flood protection investments strengthen adaptive capacity and reduce exposure to climate induced floods.

The project is expected to benefit an estimated 924,453 direct beneficiaries.

This Environmental and Social Management Assessment Report has been prepared to support the project proposal and subsequent implementation. The ESAR has been prepared using publicly available information, project reference documents, consultation with stakeholders such as government, NGOs and project development team members, and field-visits by a safeguard specialist to representative sites.

The ESAR has been prepared based on the risks identified through screening of activities using UNDPs Social and Environmental Standards procedure. The risk profile of the project has been determined to be moderate (Category B). The risks are considered acceptable and manageable through the application of mitigation measures.

The ESAR includes an Environmental and Social Management Framework (ESMF), which provides an outline of the types of mitigation measures that are likely to be required when implementing the project. Where appropriate, site specific Environmental and Social Management Frameworks or site work instructions may be prepared to deal with specific issues.

The ESAR and ESMF outline a range of mitigations and plans that are required. The following table highlights the key plans required and their approximate timing.



Key Plans / Actions Required	Timing
Review, update and implement ESMF	Project inception and annually thereafter, or as required
Review, update and implement Stakeholder Engagement Plan	Project inception and annually thereafter, or as required
Review, update and implement Gender Analysis and Action Plan	Project inception and annually thereafter, or as required
Develop and Implement Induction Plan	Pre-construction/construction
Site specific preliminary EIAs and subsequent environmental permits for construction works to ensure compliance with the applicable regulatory requirements in the B&H and UNDP SES Policy	Pre-construction (Minister to confirm requirement)
Grievance Redress Mechanism	Project Inception
Monthly Contractor Reports	Construction
Procurement Plan	Pre-procurement
Waste Management Plan	Construction
Checks and Audits	Monthly/Annually
Guidelines for nature-friendly stabilization of the riverbed and riparian areas to guide river-works projects.	Pre-construction




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## II. INTRODUCTION

This Environmental and Social Assessment Report (ESAR) has been prepared as part of the development of a project proposal for “Scaling up climate resilient flood risk management in Bosnia and Herzegovina” by the NDA and State Entities of Bosnia and Herzegovina to the Green Climate Fund (GCF).

The ESAR has been prepared using publicly available information (legislation, reports, papers, maps, images, internet searches etc), project reference documents (e.g., Concept Note, Feasibility Study, Gender Analysis and Action Plan etc), consultation with stakeholders such as government, NGOs and project development team members, and field-visits by a safeguard specialist to representative sites. The risk assessment and proposed mitigation measures draws on the available information and the experience of team members with similar projects.

As this project is supported by UNDP in its role as a GCF Accredited Entity, the project has been screened against UNDP’s Social and Environmental Standards and deemed a Moderate Risk (GCF Category B) project. To manage the low to moderate risks identified, an Environmental and Social Management Framework (ESMF) has been prepared for the project and forms part of this document (Section VIII).

### Background

Bosnia and Herzegovina (B&H) is a middle-income country with an estimated 3.531 million inhabitants and total surface area of 51,209.2 km<sup>2</sup>. The 1992-1995 war has had a devastating impact on its human, social and economic resources, leading to enormous challenges of the post-war reconstruction and economic and social recovery. This challenge has been further compounded by the transition towards market economy requiring structural reforms and improved governance.

Bosnia and Herzegovina is particularly vulnerable to extreme precipitation and river basin flooding and results in the highest damages of all natural hazards facing B&H. Increased intensity and variability of rainfall due to climate change have been causing more frequent and intensive floods on the territory of B&H.

The main flooding sources in B&H are fluvial, pluvial, torrents and groundwater. The river basins with high flood risk are the Una (in B&H 9,130 km<sup>2</sup>), Vrbas (6,386 km<sup>2</sup>), Bosna (10,457 km<sup>2</sup>), Ukrina (15,15 km<sup>2</sup>), Neretva and Trebišnjica (10,110 km<sup>2</sup>), which comprises 75% of the total surface area of B&H. Under climate change conditions, the total number of people affected is 924,453 and 314,630 households, which is 26.2% of total B&H population or 27.2% of total households in B&H.

One of the root causes of increasing vulnerability and damages from floods is lack of quality climate data and flood forecasting and early warning system. As a result, the B&H authorities are unable to make qualified decisions and the affected population cannot effectively cope with the risk. Lack of climate information and risk knowledge increase the vulnerability and costs from flooding.

The NDA and Water Entities of Bosnia and Herzegovina with support from UNDP, has formulated a project on adaptation to climate change impacts associated with flooding for submission to the GCF. The proposed activities in the project have been developed based on programs of works conceived by the Water Entities working with local authorities and communities. The project will seek to improve the resilience of vulnerable communities to climate change impacts by scaling up climate resilient flood risk management in Bosnia and Herzegovina.

### Overview of the Project

The project objective is to address the increasing vulnerability of B&H communities and livelihoods to intensified climate-induced hydro-meteorological flood-related disasters (pluvial, fluvial and torrential). This will be accomplished by adopting a comprehensive and integrated approach to flood risk management, resulting in strengthened institutional, technical, and financial capacity to develop and implement long-term flood risk management strategies, including a combination of structural and non-structural measures which protect



communities, employ eco-system-based approaches, and re-balance natural eco-system functions. In addition, strengthened early warning and emergency response systems will provide forecasts and early warning to at-risk populations.

The project will reduce vulnerability to floods across B&H (pluvial, fluvial and torrential flooding) through improved climate information and establishment of flood forecasting and early warning systems. Improved generation and use of climate information will enable sound decision making and investment into climate resilient flood risk reduction measures.

### Summary of Activities

The proposed project will have the following activities:

#### OUTPUT 1: CLIMATE-INFORMED FFEWS AND AN INCREASED GENERATION AND USE OF CLIMATE DATA REDUCE VULNERABILITY TO FLOOD RELATED DISASTERS

**Activity 1.1:** Upgrade and expand the coverage of the hydrometric network for enhanced monitoring of climate variables in Category I catchments. Activity 1.1 will include the following sub-activities:

- **1.1.1:** Develop optimized hydrometric network specification, develop ICT strategy and plan for hydrometric network
- **1.1.2:** Procure and install equipment to increase density of the hydro-meteorological observation network and expand monitoring to include greater range of hydrometric variables that climate change is bringing, in particular:
  - Meteorological and hydrological network for improved monitoring of torrents
  - Integration of the HPPs hydrometric network into the national network
  - Groundwater monitoring network for Adriatic Sea basin (include development of groundwater monitoring methodologies and protocols)
  - Sediment monitoring
- **1.1.3:** Set-up sustainable O&M for the network and,
- **1.1.4:** Develop long-term financing mechanisms for the maintenance of the hydrometric network

**Activity 1.2:** Enhance climate-induced flood hazard, risk and vulnerability information for strategic management and sound decision making for climate induced flood management. Activity 1.2 will include the following sub-activities:

- **1.2.1:** Develop hydrological modelling for all main basins (Category I rivers) to complement WBIF project's EUFD hazard and risk models
- **1.2.2:** Develop full basin hydraulic models
- **1.2.3:** Produce country-wide maps of torrents hazard, risk and vulnerability
- **1.2.4:** HPP modelling for development of enhanced operating rules for Hydro Power Plants (HPPs). Incorporation of HPP operations into flood hazard and risk modelling

**Activity 1.3:** Develop an integrated centralized and community-based flood forecasting and early warning system (FFEWS). Activity 1.3 will include the following sub-activities:

- **1.3.1:** Develop and implement impact based FFEWS system (centralized and Community-based)
- **1.3.2:** Implement CBEWS for high priority communities for which CBEWS will be supported based on the following considerations: relatively high risk, short lead time of the extreme events, potential technical constraints for the central system to effectively service the community (e.g. due to remote location or connection problems)



- **1.3.3:** Review, identify and develop sector specific FFEWS products (based on market research and WTP surveys). Review existing access to, and use of climate and flood risk information in specific sectors (agriculture, hydropower/energy)
- **1.3.4:** Develop and implement a capacity development plan for embedding flood hazard and risk modelling approaches and FFEWS into appropriate institutions in B&H (based on Institutional capacity report developed for Vrbas).

**Activity 1.4:** Developing and implementing national protocols and SOPs on data generation, data management and communication for effective FFEWS and flood risk management. Activity 1.4 will include the following sub-activities:

- **1.4.1:** Implement SoPs for “last-mile” warning and dissemination and communication system. Based on Vrbas design, specify the last-mile system (including dissemination and warning technologies) will be implemented
- **1.4.2:** Develop national protocols and SOPs on data generation, data management for FRM.
- **1.4.3:** Develop data sharing protocols and platform for climate data, across all government institutions in both entities. Spatial Data Infrastructure to be developed/enhanced to ensure climate data flow/exchange

**OUTPUT 2: SCALED-UP ECOSYSTEM-BASED AND NON-STRUCTURAL CLIMATE RESILIENT FLOOD RISK REDUCTION.**

**Activity 2.1:** Mainstream climate induced flood risk reduction into sectoral planning (agriculture, hydropower, critical infrastructure, forestry) and spatial planning. Activity 2.1 will include the following sub-activities:

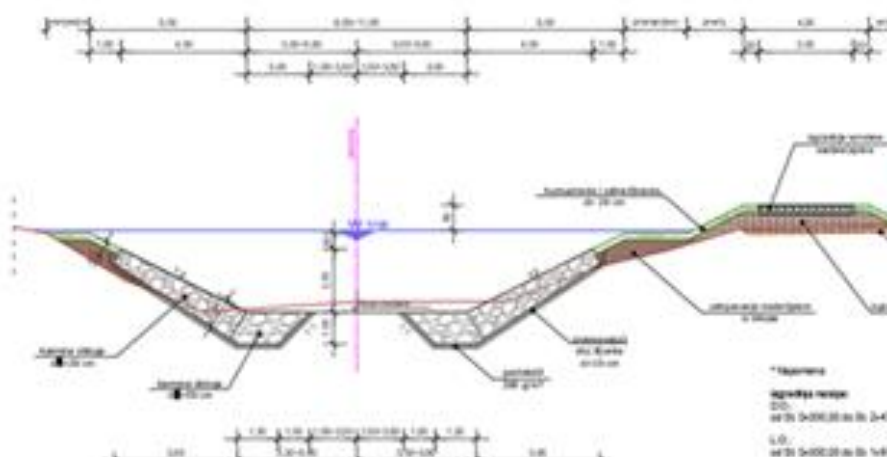
- **2.1.1:** Mainstream climate induced flood risk reduction into sectoral strategies, plans and technical guidelines for agriculture, hydropower and critical infrastructure, forestry and environment.
- **2.1.2:** Develop national floodplain zoning policy and legislation, based on hazard, risk and vulnerability mapping, flood resilient building codes and embedding of climate change considerations in the design and construction standards of critical infrastructure.
- **2.1.3:** Update climate risk-informed methodologies and standards for infrastructure design, construction material, use and maintenance of critical infrastructure in B&H
- **2.1.4:** Deliver training and technical advice on climate resilient infrastructure design, construction and O&M approaches

**Activity 2.2:** Implement and mainstream new ecosystem-based flood risk reduction and climate change adaptation methods. Activity 2.2 will include the following sub-activities:


- **2.2.1:** Implement catchment management measures for reduced erosion
- Erosion reduction on torrential watercourses e.g., gabion walls, sediment barriers etc.
- The stabilization of excessively eroding riverbanks with vegetation cover and its root network
- Planting of forest stripes in agricultural land
- Identify agriculture infrastructure that could address climate threats, such as irrigation systems and reservoirs and rainwater collection in each target basin. Assess and identify flood risks to agricultural infrastructure in target basins, as well as flood risk management opportunities associated with agricultural infrastructure under climate change and potential new infrastructure such as irrigation retention basins that could also serve as flood storage areas;
- Design an agro-forestation scheme identified area of floodplain and develop an implementation plan for the scheme.
- Table 1. provides examples of the measures proposed.



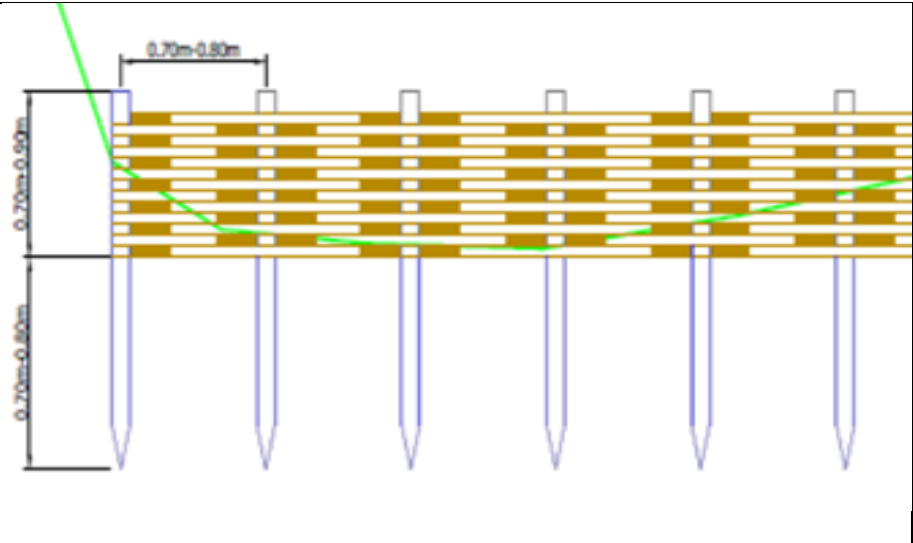

Table 1 Proposed EBA/non-structural measures under Activity 2.2.1

River Basin	Name of the measure	Brief description of measure
Vrbas river Basin	<b>Rehabilitation of downstream parts of Jošavka river, on critical locations where erosion is significant.</b> 	Rehabilitation on critical parts river Jošavka. Total length of eroded banks is approx. 500m. Removing flood deposit, protecting the banks with natural stone and erecting small dykes in order to keep 1:100 flood flows within riverbed.
Vrbas river Basin	<b>Flood deposit torrential barriers on Jošavka basin</b>	Construction of torrent barriers for sediment control. 9 barriers are planned for construction. Total volume of stone barriers is approx. 17,000.00 m <sup>3</sup> .



		
<b>Vrbas river Basin</b>	<b>Wickers</b>	<p>Construction of wicker barriers for sediment control.</p> <p>16 barriers are planned for construction within whole river basin.</p> <p>Total length of 16 wicker barriers is approx. 1100m.</p>



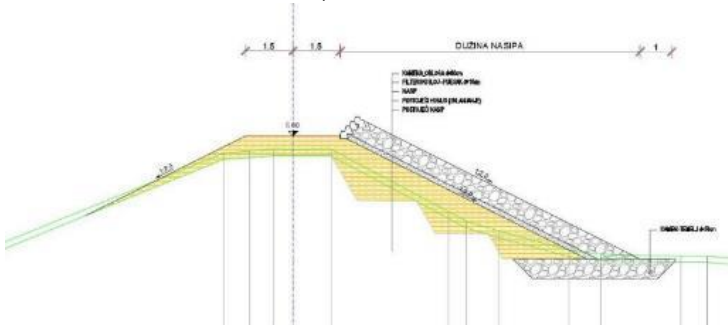
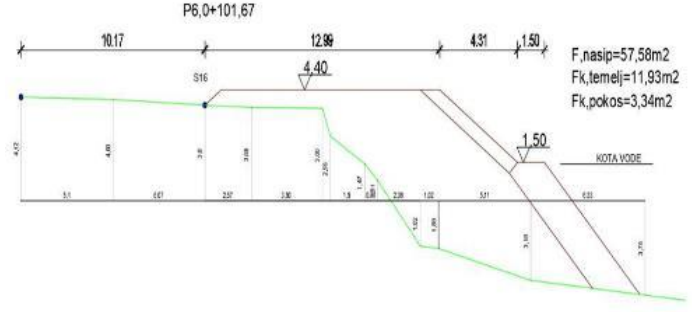
	 <p>A technical diagram illustrating a forestation layout. It shows a rectangular area divided into three horizontal sections. The top section is labeled '0.70m-0.80m' and contains a series of small white squares. The middle section is labeled '0.70m-0.80m' and contains a series of horizontal white lines. The bottom section is labeled '0.70m-0.80m' and contains a series of vertical white lines. A green line runs diagonally across the diagram, and a blue line runs horizontally across the middle section.</p>	
Vrbas river Basin	<p><b>Forestation</b></p>  <p>A photograph showing a group of people working on a hillside, engaged in forestation activities. They are wearing orange safety vests and are using tools to plant trees. The background shows a dense forest of tall, thin trees.</p>	<p>Recommended forestation in Jošavka river basin is approximately 200ha.</p>

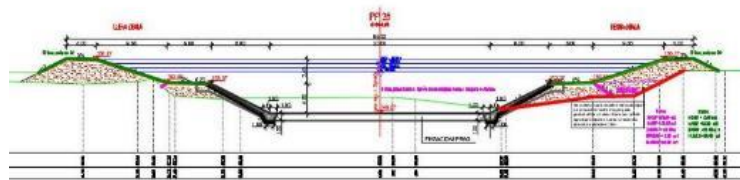
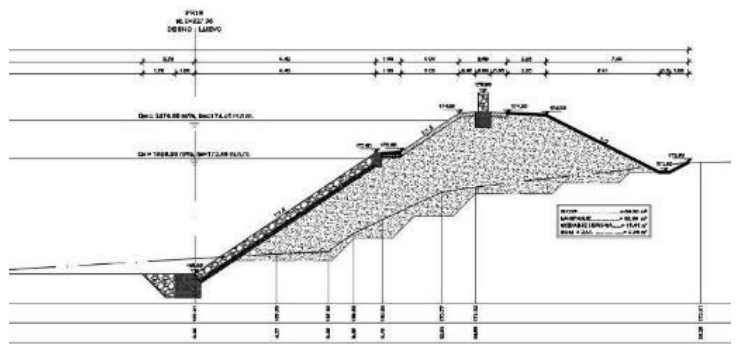


Vrbas river Basin	<div>Grassing</div>  A photograph showing a wide, dry riverbed with sparse, dry grass and small shrubs. The riverbed is surrounded by a hilly landscape with bare trees, suggesting a dry season or late autumn. In the background, there are mountains under a clear blue sky.	Recommended grassing in Jošavka river basin is approximately 80ha.
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- 2.2.2: Implement 21 selected non-structural flood risk reduction measures. Eight (8) of these 21 non-structural flood risk reduction measures will be financed by GCF resources. **Error! Reference source not found.** provides examples of the measures proposed.

River Basin	Name of the measure	Brief description of measure
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<p>Neretva river Basin</p>	<p>Rehabilitation of the right defensive embankment on the Krupa River in Višići settlement. L=4,000m</p> 	<p>Works consists of upgrading of existing protective dyke on the right bank of Krupa river. Existing dyke can not withstand climate change induced flood levels for 1:100 events.</p>
<p>Neretva river Basin</p>	<p>Flood deposit removal and rehabilitation of damaged banks of the Neretva River at the Struge-Čapljina section.</p>  <p> <math>F_{nasip}=57,58m^2</math>  <math>F_{k,temelj}=11,93m^2</math>  <math>F_{k,pokos}=3,34m^2</math> </p>	<p>Removing of excessive flood deposits from the riverbed and protecting riverbanks - left river bank with natural stone lining, to prevent further erosion. No additional excavation is necessary from the riverbed (ie natural bed level will be retained). On critical parts, excavated flood deposit from riverbed will be used for backfilling of eroded bank. No additional excavation of eroded banks is required.</p>

<p>Bosna river Basin</p>	<p>Completion of flood protection line in urban areas (Sava River Basin) - Gračanica River Spreča - cross entity river.</p> 	<p>Right riverbank is in FB&amp;H and left in RS. Total length of rehabilitation: 2,500 m. Removing flood deposit, protecting the banks with natural stone and erecting small dykes in order to keep 1:100 water within riverbed.</p>
<p>Bosna river Basin</p>	<p>Completion of flood protection line in urban areas (Sava River Basin) – Maglaj</p> 	<p>Measure consists of profiling of right riverbank of Bosna river, removing flood deposit, protecting the banks with natural stone in cement mortar and erecting small dykes in order to keep 1:100 water within riverbed. Stone embankment is elevated to height of 1:20 year water level, while rest of the embankment is constructed from soil and clay. To maintain “life with river” policy, Water Agency requested construction of staircases from top to bottom of embankment on every 100m of riverbanks. Also, pedestrian walking trail is designed on top of dyke.</p>
<p>Bosna river Basin</p>	<p>Construction of a bank revetment on the left bank starting from the New-Japanese Bridge in Doboj towards downstream at a length of approximately 1,0 km.</p>	<p>Removing flood deposit, protecting the banks with natural stone and erecting dykes in order to keep 1:100 water within riverbed. All material is provided from local quarries.</p>



Bosna river Basin	<p>Construction of protective structures in Dobor settlement:</p> <ul style="list-style-type: none"><li>• Regulation of the main riverbed of the Bosna River at a length of 2,000 m</li><li>• Construction of a protective embankment along the Bosna River at a length of 2,000 m</li><li>• Construction of an embankment along the Dusa River with a length of 250 m and the structure on the mouth of the Dubokovac canal.</li></ul>	Removing flood deposit, protecting the banks with natural stone and erecting dykes in order to keep 1:100 water within riverbed. All material is provided from local quarries.



Sana river Basin	<p>Regulation of the canal of the Gomjenica River around the City of Prijedor from the confluence with the Sana River and upstream at a length of approximately 4 km.</p>	<p>Slashing and trimming of existing vegetation within inundation area, removing flood deposit, protecting the banks with natural stone and erecting dykes in order to keep 1:100 water within riverbed. Total length of proposed works is from mouth of river Gomjenica upstream for 3,0 km.</p>
Bosna river Basin	<p>Completion of flood protection line in urban areas (Sava River Basin) – Lukavac L=1200 m</p>	<p>Removing flood deposit, protecting the banks with natural stone and erecting dykes in order to keep 1:100 water within riverbed. All material is provided from local quarries. -Removing/Slashing vegetation from banks and within riverbed,</p>



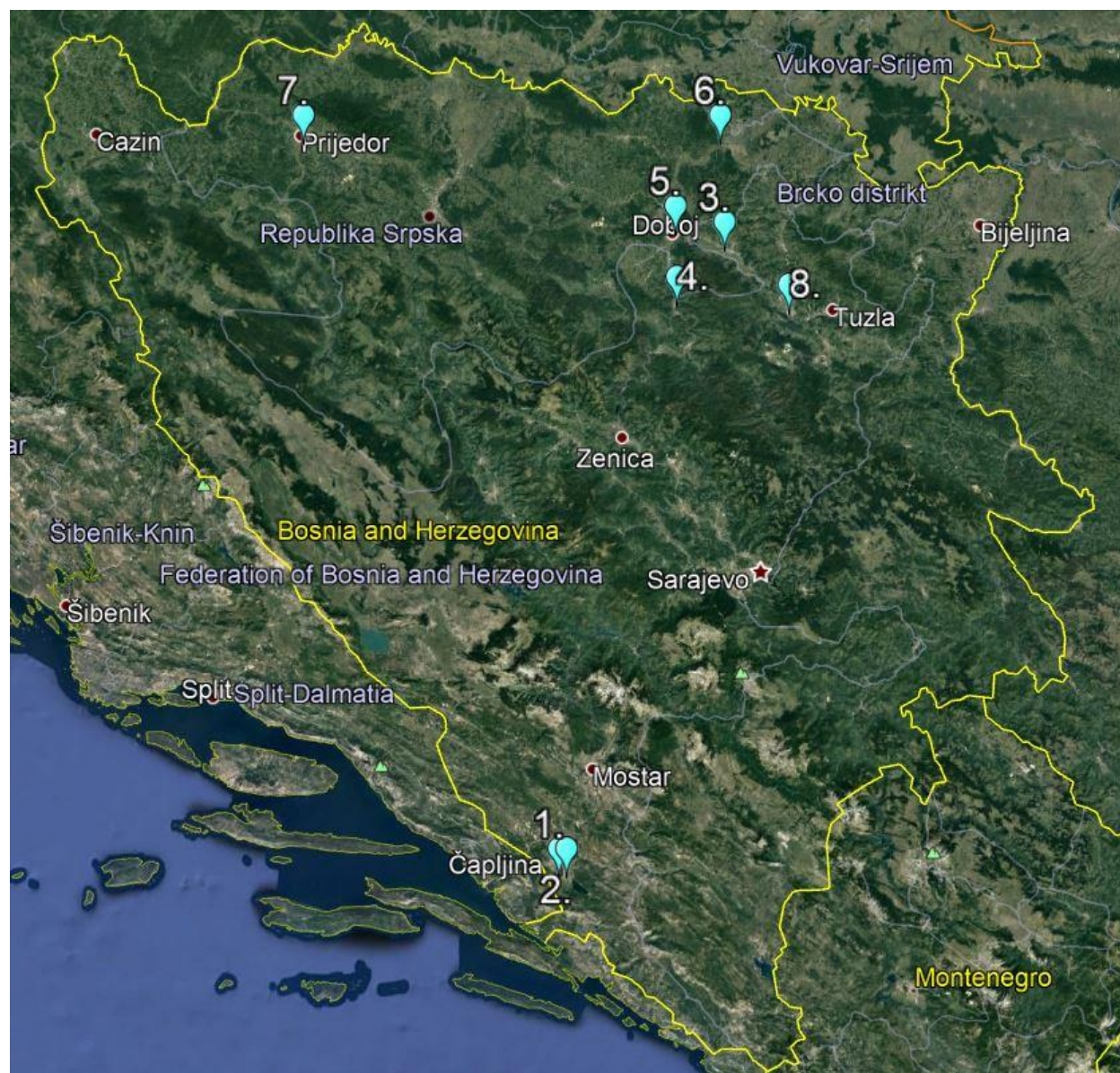


Figure 1 Location of proposed GCF financed interventions for Activity 2.2.2

More information on dikes and embankments on Neretva, Bosna, and Sana Rivers is provided in Appendix 5 to this report.



**Activity 2.3:** Codify and mainstream “ecosystem-based adaptation” (EbA) solutions into policies and regulations and build awareness about concepts of "making room for water" and/or "living with floods" among decision makers and communities. Activity 2.3 will include the following sub-activities:

- 2.3.1: Develop best-practice guidelines for non-structural measures:
- Develop the methodology and guidance for undertaking river basin analysis of the local socio-economic, environmental, and institutional conditions that would underpin the selection and design of basin appropriate EbA solutions.
- Develop the methodology for system evaluation to determine the pre-existing types of ecosystems and abiotic processes and identify opportunities and constraints for effective conservation and restoration of ecosystems
- Develop methodology and guidance for undertaking risk assessment and appraisal of EbA measures, by adapting traditional risk assessment and appraisal methods for nature-based solutions, to incorporate the full range of benefits generated by nature-based projects
- 2.3.2: Develop technical specification, standards and protocols for design and implementation of non-structural measures
- Review existing international technical specifications, standards and protocols for the design and implementation of nature-based structures and adapt and develop same for B&H.
- Develop a knowledge portal and common resource center to collect, collate and share knowledge and fill these gaps to advance uptake of nature-based solutions. Developing and applying quantifiable engineering protocols for ecosystems will require close collaboration between ecologists, or specialists with a strong understanding of the natural systems, and engineers. A knowledge portal of this nature allows to co-working and knowledge sharing
- 2.3.3: Review and implement of training required for new non-structural measures

**Activity 2.4:** Review and strengthening of institutional capacity and development of long-term institutional plans for climate resilient FRM. Activity 2.4 will include the following sub-activities:

- 2.4.1: Embed FRM training in existing government training programs for long-term FRM training in B&H.
- 2.4.2: Develop a costed and prioritized Institutional capacity development plan to address technical, functional and human capacity gaps identified through the completed institutional capacity assessment
- 2.4.3: Implement community-based training and awareness raising initiatives at community level.

### OUTPUT 3: CLIMATE-PROOF FLOOD PROTECTION INVESTMENTS STRENGTHEN ADAPTIVE CAPACITY AND REDUCE EXPOSURE TO CLIMATE-INDUCED FLOODS

**Activity 3.1:** Development of a country-wide investment framework for climate induced flood risk reduction and management including provisions for private sector engagement in climate risk financing. Activity 3.1 will include the following sub-activities:

- 3.1.1: Develop investment framework for climate induced floods risk reduction and management including provisions for public and private/productive sector engagement in climate risk financing;
- 3.1.2: Develop risk financing and transfer mechanisms based on detailed socio-economic risk, damages and losses assessment;



- 3.1.3: Design natural disasters' insurance scheme and explore, and identify, other risk financing and transfer mechanisms products and tools.
- 3.1.4: Develop tool for appraisal-led design for structural and non-structural FRM measures, FRM investment planning, climate risk financing mechanisms and for appraisal-led FRM options design and decision-making, based on CBA approaches.

**Activity 3.2:** Formulate and implement multi-year climate resilient municipal investment plans and gender responsive community preparedness plans in selected municipalities and in one canton in Vrbas, Una-Sana, Bosna, Drina, Neretva and Trebišnjica basins. Activity 3.2 will include the following sub-activities:


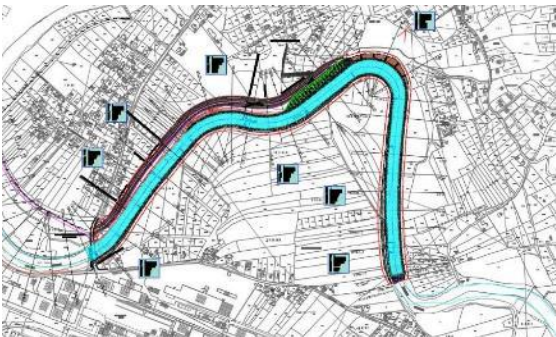
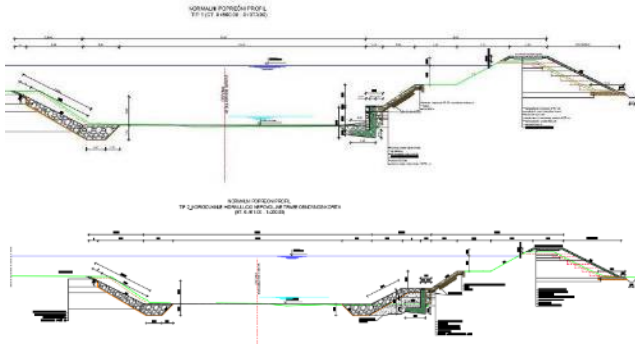

- 3.2.1: Develop municipal investment plan for climate resilient FRM planning for 10-12 highest risk communities and 1 canton
- 3.2.2: Develop preparedness plans for 10-12 highest risk communities and 1 canton based on Vrbas methodology

**Activity 3.3:** Implement climate-proof structural flood risk reduction and anti-erosion interventions in Vrbas, Una-Sana and Bosna, Neretva and Trebisnjica river basins. Activity 3.3 will include the following sub-activities:



- 3.3.1: Finalize detailed design of climate resilient flood protection structural measures identified using CBA methods and appraisal-led optioneering to identify and prioritize critical flood protection structures.
- 3.3.2: Implement new flood defenses and the rehabilitation and upgrade of existing flood defenses with climate proofing.



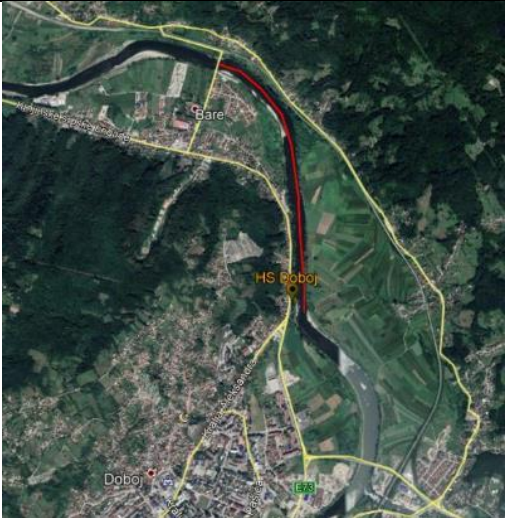
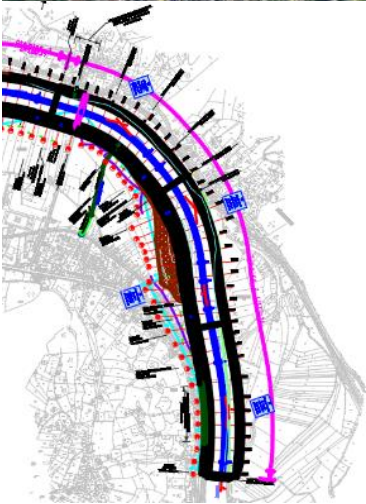
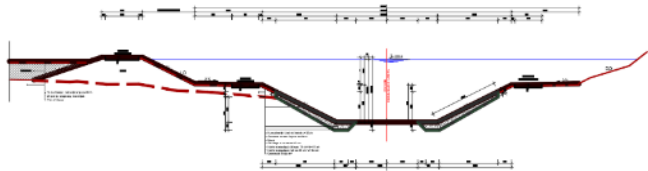



Structural measures to be implemented under sub-activity 3.3.2				
No.	River basin	Google image/Design Layout/Photo from location	Name of the measure	Brief description of measure
1.	Vrbas	 	<p>Rehabilitation of the Vrbanja River bed in Banja Luka</p>  	<p>Works on landscaping of the main riverbed in terms of stabilization and securing of river banks, as well as on the profiling of the riverbeds.</p> <p>The project will additionally improve the concave curve at the site of "Crni Vir" and will include rehabilitation and overhanging of the existing right embankment.</p>


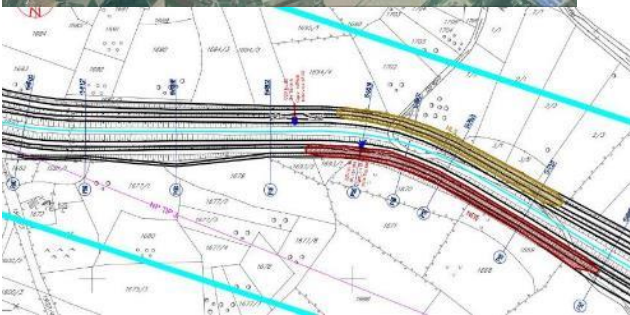
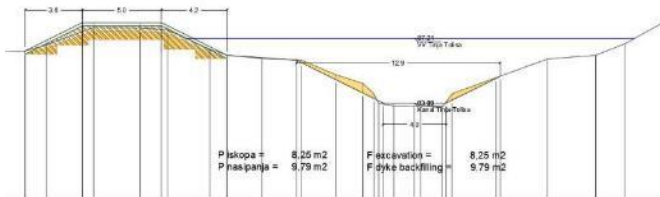



Structural measures to be implemented under sub-activity 3.3.2				
No.	River basin	Google image/Design Layout/Photo from location	Name of the measure	Brief description of measure
2.	Vrbas	 	<b>Revitalization of Borna channel in Gradiska Municipality</b>	Rehabilitation on the left bank of the canal with 2,1 km long dyke along the canal. On the left bank, an elevation of about 0.4 m is required on average 300 m in length, as a concrete wall along the existing road. On the right bank, an elevation of 0.6 m in length of about 2 km is required. Bottom of canal in the length of 2,1km is required which also includes restoration of 4 existing cascades.



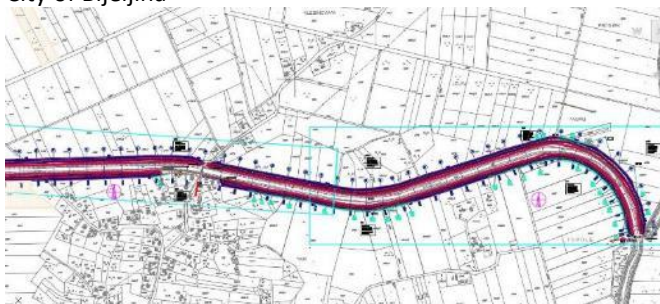



3.	Bosna	 	<p>Flood protection of the settlement Bare, City of Doboj</p>  	<p>Cleaning and stabilization of the basic river bed of the river Bosna from the bridge in Bare settlement and upstream at a length of 1.78 km. The river bed is 100 m wide with a slope of 1: 2 and a stone embankment up to a water level of 1/10 years. The embankments were designed to protect the Bare settlement from the high waters of 2014 with a overhang of 30 cm.</p>
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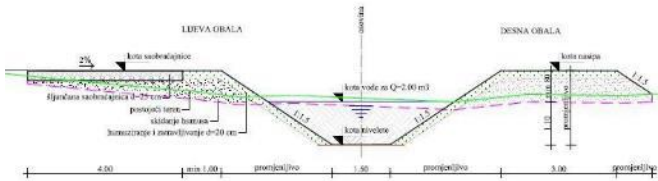
Structural measures to be implemented under sub-activity 3.3.2				
No.	River basin	Google image/Design Layout/Photo from location	Name of the measure	Brief description of measure
4.	Drina	 	<p>Rehabilitation of channels network in area of PS Đurići (Tinja-Tolisa)</p>  	<p>Rehabilitation of canal: cleaning and slashing of in-canal vegetation, cleaning flood deposit and sediment. On critical parts, additional elevation of top on levee is needed. In addition, strengthening of canal banks due to erosive process is needed Total length of the proposed works is 940m. In order to connect back coastal waters, reconstruction of existing inlets as proposed as well as construction of three new.</p>




Structural measures to be implemented under sub-activity 3.3.2				
No.	River basin	Google image/Design Layout/Photo from location	Name of the measure	Brief description of measure
5.	Drina	 	<p>Rehabilitation and raising of dyke on the GOK channel in the City of Bijeljina</p>  	<p>The works include rehabilitation of eroded banks as well as the overhang of the embankment crown on critical sections. In order to allow ongoing maintenance in the full profile of the embankment, slashing of low vegetation will be conducted. New service road will be constructed on top of the embankment.</p>



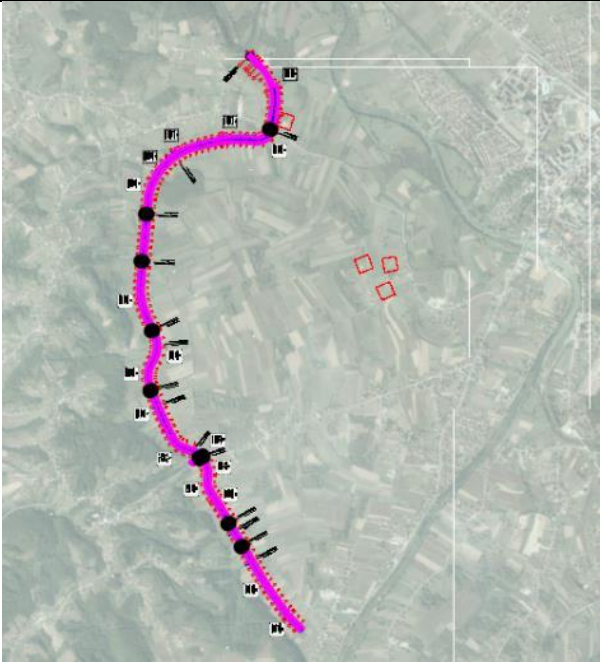
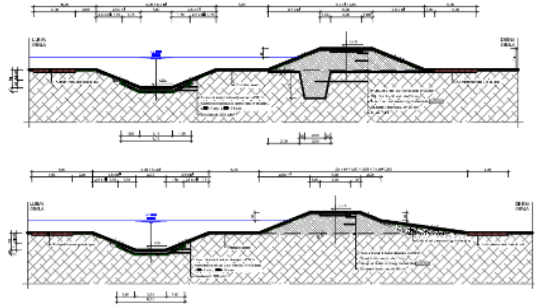



Structural measures to be implemented under sub-activity 3.3.2				
No.	River basin	Google image/Design Layout/Photo from location	Name of the measure	Brief description of measure
6.	Drina	 	<p>Construction of channel (Selište - Dašnica)</p> 	<p>Construction of new canal that connects two existing ones. By connecting the Selište canal to the Dašnica-old canal, gravity supply of irrigation water to the subsystems and planned pumping stations is ensured, which will also enable drainage of inland surface waters to the Drina river. The canal is 2.8 km long, 2.5 m wide at the bottom and slope 1: 1.5.</p>




Structural measures to be implemented under sub-activity 3.3.2					
No.	River basin	Google image/Design Layout/Photo from location	Name of the measure		Brief description of measure
					



7.	Una-Sana		<p>Construction of the Lateral channel in west part of Prijedor</p>  	<p>Construction of a perimeter canal in Mataruško field, total length 5.29 km, for protection against flooding of agricultural parcels and drinking water intake for the City of Prijedor. The channel is variable width at the bottom with partial stone lining sections. The embankment crown on the right bank of the Lateral Canal is above 1/100 high with additional overhang of 0.80m.</p>
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Structural measures to be implemented under sub-activity 3.3.2				
No.	River basin	Google image/Design Layout/Photo from location	Name of the measure	Brief description of measure
8.	Vrbas, Bosna, Drina, Sava		Cleaning of areas near canals and dykes in north RS	Cleaning of areas near canals and dykes in north RS Total area 110ha.



### **Project Alternatives**

As part of the project development, a range of alternatives were considered.

#### **Do Nothing**

Without undertaking the river works activities, significant flooding and loss of life and assets would continue to occur.

The GCF project will support the commitment of the various level of government in Bosnia and Herzegovina to avoid losses of lives and to reduce economic and infrastructure losses caused by climate-induced hydro meteorological disasters. The project will achieve this by nation-wide scaling-up of the FFEWS, developing capacities for climate information services, enabling, and embedding the use of climate risk information in sector planning and decision-making, and reduction of exposure of the most vulnerable communities to climate-induced hazards through community-based risk reduction measures. Without undertaking these interventions, the country would not be able to reduce the potential for loss or damage to assets and/or loss of life.

#### **Alternate Locations**

The proposed activities could be undertaken in a number of different locations. However, the proposed locations, particularly the river works interventions have been identified by the relevant water agencies in Bosnia and Herzegovina as priority sites within their strategic plans, that is, sites that provide the greatest economic, environmental, and social benefit.



### III. LEGAL AND INSTITUTIONAL FRAMEWORK FOR ENVIRONMENTAL AND SOCIAL MATTERS

#### Legislation, Policies and Regulations

The following legislation is relevant to the project.

Constitution

Parts of the B&H Constitution that relevant to social and environmental aspects:

- Article II: Human Rights and Fundamental Freedoms
- 3. Enumeration of Rights
  - a) The right to life.
  - d) The rights to liberty and security of person.
  - f) The right to private and family life, home, and correspondence.
  - g) Freedom of thought, conscience, and religion
  - k) The right to property.
  - m) The right to liberty of movement and residence.

#### **Environmental laws and regulations:**

- **Act of 30 August 2013 on protection of the environment (Environmental, Climate and Sustainable Development Laws).** Determines the mandate of institutions in charge of protection of the environment, ecologically significant areas, protection of particular eco-systems, protection measures, planning and organization, monitoring, access to information, promotion of education in environment protection, financing, inspections.

In regard of EIA, the rulebooks that defines criteria on projects for which the environmental assessment impact is necessary, contains the list of related objects/projects ("Rulebook on plants and facilities that require EIA and plants/facilities that require environmental permit" Official Gazette FB&H 19/04 for FB&H, and Official Gazette RS No: 124/12 and Official Gazette RS No 124/12). In water sector the projects that require EIA are groundwater pumping (10mil m<sup>3</sup>/annually), hydro technical facilities for water transport (for more than 100mil m<sup>3</sup>/annually), waste water processing facilities, dams and other facilities that accumulate water (for 10mil m<sup>3</sup>/annually). Type of measures that we will implement is not on the list (so, the project will be exempt).

Construction of flood protection facilities is regulated by "water guidelines" issued by water agencies. However, the local communities issue permits for activities of lower complexity for the waters under their responsibility (riverbed cleaning, removal of sediment, stone embankments, etc).

- **Act of 10 July 2012 on Fisheries.** Regulates waters used for fishing, commercial and sport fishing, protection of fish stocks, register, and supervision. The FB&H Fisheries law defines:  
Article 35: Physical and legal entities carrying out certain activities on watercourses and reservoirs that lead to the death of the fish, and it is determined that they caused it, have to compensate to the user of fishing area to for the damage.

The RS Law on Fishery forbids the following activities in "fishery zone"

- installation of fences or any other barriers that prevent persons holding a license for commercial or sport fishing and fishermen, to access to fishing zone





- carry out works that result in fishing waters being muddy for more than 48 hours,
- **Act of 21 December 2012 on protection against noise.** The Act defines allowed noise level in db. and time when is not allowed or must be minimized (during the night, from 22:00h-06:00h and during the non-working days (this is for FB&H, in RS there is no special act that regulates noise).

#### **Laws relating to employment:**

- **Labor Relations Act of 1993.** (Conditions of employment; Conditions of work). Labour laws falls within the competence of entities FB&H, RS, Brcko District and cantons (with exception of civil servants at state B&H level institutions). The issues of work conditions are regulated by legislation (numerous rulebooks) taken from former Yugoslavia (in both entities)
- **Act No. 59 of 2009 on Prohibition of Discrimination.**
  1. For the purposes of this Law, discrimination shall be considered to be any different treatment
    - including any exclusion, limitation or prioritization based on real or
    - assumed grounds against any person or group of persons and those with them
    - kinship or other relationship based on their race, skin color, language, religion, ethnicity
    - affiliation, disability, age, national or social origin, links to
    - national minority, political or other beliefs, wealth, union membership
    - or other association, education, social status and gender, sexual orientation,
    - gender identity, gender characteristics, as well as any other circumstance for the purpose or
    - the consequence of denying or threatening to any person the recognition, enjoyment or enjoyment of
    - equal rights, rights and freedoms in all areas of life.
  2. The prohibition of discrimination shall apply to all public bodies as well as to any physical or legal persons, both in the public and private sectors, in all fields, and in particular: employment, membership of professional organizations, education, training, housing, health, social care, goods and services intended for the public and public places, and the pursuit of economic activities and public services.
- **Act of 1 April 2003 on the protection of members of national minorities** (Text No. 105) and Act of 5 October 2005 to amend and supplement the Act on the protection of members of national minorities (Text No. 502). (Establishes rights and obligations of members of national minorities in Bosnia and Herzegovina, and obligations of government bodies to respect and protect ethnic, cultural and religious identity of every member of national minorities who is a citizen of B&H.
- **Act of 21 May 2003 on gender equality in Bosnia and Herzegovina** (Text No. 161) – Provides for the promotion and protection of sex equality, guarantees equal opportunities to all citizens in all areas, public or private, and prevents direct or indirect sex discrimination. Contains, inter alia, provisions on education, employment (Chapter V: sections 7 to 10), social and health protection.
- **Act of 16 June 2010 on Mining and Act of 6 June 2012 on Mining. (RS)** Regulates mining activities in the region. Includes provisions on workers employed in mining and occupational health and safety.
- **Act of 31 October 2005 on occupational safety and health.** OHS requirements will need to be met by project, therefore this Act relevant. OHS is regulated by both entities
- **Act on Safety at Work (Official Gazette of the Republic of Sprska, No. 1/08, amended 2010).** OHS is regulated by laws and numerous rulebooks in both entities, the acts are in force and define all aspects of occupational health, safety.
- **Act of 30 October 2002 on Construction** (Text No. 680). Contains provisions on security, protection from fire and explosion, health protection, protection from accident, noise and vibration.

#### **Human Rights**

- **Act of 3 July 2017 on protection of persons reporting corruption** (Official Gazette No. 62/17). RS Determines protection, procedure of reporting, obligations of responsible bodies and other relevant



questions. This will be important to reference in association with the GRM). In force from 2017 at the RS level. FB&H does not have this law - this issue in FB&H is partially covered by Work Law and Law on Public Servants

- **Act of 16 December 2013 on protection of persons reporting corruption in the institutions of Bosnia and Herzegovina** (Text No. 1310). In force from 2013 at the B&H level. It covers B&H (state) level institutions (servants) only, but not entities or cantons. This law has very limited range of enforcement.
- **Act of December 2000 on the Human Rights Ombudsman of Bosnia and Herzegovina.** The Human Rights Ombudsman of Bosnia and Herzegovina is an independent institution set up in order to promote good governance and the rule of law and to protect the rights and liberties of natural and legal persons. Provides, inter alia, for powers and jurisdiction of the Ombudsman, appointment and resignation, co-operation with Ombudsman institutions of the entities, immunities, investigation procedure, obligation to co-operate with the institution, duty of discretion, and responsibility of authorities.

The B&H Ombudsman, together with the B&H Human Rights Chamber constitutes the B&H Human Rights Commission. Currently, the B&H Ombudsman operates based on the Constitution of B&H and the Law on the Ombudsman, which guarantees the independence and framework of the infrastructure for the protection and promotion of human rights and fundamental freedoms. There are three ombudsmen in B&H and any physical or legal entity may submit a complaint to the Ombudsman's office.

Their function is to:

- reviews cases related to poor enforcement or violations human rights committed by any authority of Bosnia and Herzegovina, its Entities or the Brcko District
- if finds a violation of rights, the Ombudsman shall issue recommendations or opinions to the competent authorities to take measures to correct issue of human rights violations or poor functioning of the administration. Also, the Institution advises citizens on how to use the most appropriate legal remedies or refers them to the appropriate institutions.

The Ombudsman can't:

- change decisions of the public authorities,
- assume the role of the bodies acting on appeal,
- cannot interfere with the decision-making process of the courts,
- Ombudsman doesn't represent complainants toward public authorities,
- does not make submissions or complaints on behalf of complainants,
- cannot award compensation for identified human rights violations.

### **Environmental Impact Assessment in Bosnia and Herzegovina**

There is no centralized Ministry for Environment – although the state-level Ministry for Foreign Trade and Economic Relations (MOFTER) does undertake some co-ordinating role, therefore the institutions responsible for environmental governance for major issues lies at the entity level. The EIA laws in the two Bosnian entities, the Federation of B&H (FB&H) and Republic Srpska (RS), broadly adhere to the provisions of the Aarhus Convention stipulating public participation in environmental decision-making. In both entity laws, there is a requirement for interested parties to be able to access relevant information and provide feedback at all stages of the environmental decision-making process (Art. 36 of FB&H Law, Art. 35 of RS law).

The first step in the process is to determine whether the construction and operation of the proposed infrastructure will have a significant environmental impact. For other projects, the decision to conduct an EIA will be made by the environmental ministry at the entity, cantonal or municipal level depending on the size of the potential environmental effects.





The stages of the process are then outlined in two phases<sup>17</sup>:

- Phase I: If an EIA is needed, the project developer must submit the required information (called the Preliminary Environmental Assessment) to the responsible ministry to determine the scope of the EIA study.
- Phase II: In both entities, the responsible ministry defines the scope of the EIA and instructs the developer to select a consultant to carry out the study from a list of registered local institutions.

For projects deemed to have a smaller impact, cantonal (FB&H) or municipal (FB&H and RS) authorities execute the same function. In Phase I, the developer sends the following required documentation for the Preliminary EIA to the responsible ministry: general project description; proposed measures to mitigate negative environmental impact; discussion of alternatives and the justification for the selected alternative; relevant excerpt of planning documents; data needed for the impact assessment and potential difficulties with data collection; and a non-technical summary.

The responsible ministry then sends this documentation to relevant institutions and other stakeholders (including local authorities in affected communities) for comment within 30 days of receipt (Art. 58 of B&H law, Art. 59 of RS law).

After the 30 days have elapsed, the responsible ministry considers the comments from the relevant stakeholders to define the scope and content of the EIA for the developer (Art. 59 of FB&H law, Art. 60 of RS law). Once the scope and content of the EIA study are defined, the developer selects one of the companies or institutions that have obtained certification for EIA to carry out the study.

The developer then sends the completed draft EIA to the responsible ministry for further review and approval of the EIA study, which is Phase II of the EIA procedure. The draft EIA is sent by the ministry to relevant institutions for opinions and comments to be received within 30 days. The ministry also arranges a public meeting near the proposed site of the project, providing at least 15 days' notice of the details of the meeting (in local media and/or on the ministry website) and providing the relevant documents locally or on the ministry web pages (Art. 64–65 in RS law, Art. 62 in FB&H law). The responsible ministry must then publish minutes of the meeting promptly (within three days in FB&H, within eight days in RS), and the public can send further feedback to the ministry for a period of 30 days after the public meeting (Art. 61 in FB&H law, Art. 65 in RS law). The comments are then sent to the developer to address for the final EIA, which is resubmitted to the responsible ministry.

The responsible ministry decides whether to accept or reject the final EIA study after a series of evaluation processes (Art. 64 in FB&H law, Art. 68 in RS).

This process will apply to any completely new facilities built by the project e.g. construction of the Drina embankment. However, many of the proposed activities (reconstruction) fall within exemptions provided to the Water Authorities by the Minister. None the less, before starting any of the projects the water management ministry will seek confirmation that reconstruction activities are exempt in order to have clear documentation of that exemption.

### **Multilateral Agreements and Biodiversity Protocols**

Bosnia and Herzegovina is a signatory to a number of international and regional agreements and conventions, which are related to the environment. They include:

- [Agreement between the Council of Ministers of Bosnia and Herzegovina and the Government of the Republic of Croatia on cooperation in the field of environmental protection and sustainable development \(Official Gazette of B&H - MoU, No. 2/17\)](#)

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<sup>17</sup> Fagan A., Sircar I. (2015) Environmental Impact Assessment (EIA) Processes in Bosnia-Herzegovina. In: Europeanization of the Western Balkans. New Perspectives on South-East Europe. Palgrave Macmillan, London



- [Agreement between the Council of Ministers of Bosnia and Herzegovina and the Government of the Republic of Serbia on cooperation in the field of environmental protection and sustainable development \(Official Gazette of B&H - MoU, No. 2/16\)](#)
- [Convention on Environmental Impact Assessment in a Transboundary Context \(Espoo Convention\) - \(Official Gazette of Bosnia and Herzegovina - MU No. 08/09\)](#)
- Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal - ("Official Gazette of Bosnia and Herzegovina" - MU No. 31/00)
- [Aarhus Convention / Convention on Access to Information, Public Participation and Access to Justice - \(Official Gazette of Bosnia and Herzegovina - MU No. 08/08\)](#)
- [Convention on International Trade in Endangered Species of Wild Fauna and Flora \(CITES\) - \(Official Gazette of Bosnia and Herzegovina - MU No. 11/08\)](#)
- [Convention on the Conservation of Migratory Species of Wild Animals \(CMS\) - \(Official Gazette of B&H - MU, No. 8/2017\)](#)
- [Protocol on Strategic Environmental Assessment to the Convention on Strategic Environmental Impact Assessment \(SEA\) - \(Official Gazette of Bosnia and Herzegovina - MoU, No. 3/2017\)](#)
- [United Nations Convention on Biological Diversity / UN Convention on Biological Diversity \(UNCBD\) - \(Official Gazette of Bosnia and Herzegovina - MoU No. 12/02\)](#)
- [United Nations Framework Convention on Climate Change \(UNFCCC\) - \(Official Gazette of Bosnia and Herzegovina - MU No. 19/00\)](#)
- [Convention on Wetlands of International Importance, especially on Habitats of Watercourses / Convention on Wetlands of International Importance Especially as Waterfowl Habitat \(Ramsar Convention\)](#)
- Cartagena Protocol on Biosafety of the Convention on Biological Diversity (29.01.2000), Downloaded by Succession ("Official Gazette of Bosnia and Herzegovina" - MoU No. 12/08)
- Kyoto Protocol - Kyoto Protocol (Official Gazette of Bosnia and Herzegovina - MU No. 03/08)
- Stockholm Convention on Persistent Organic Pollutants (Official Gazette of Bosnia and Herzegovina - MU No. 01/10)
- Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) - (Official Gazette of Bosnia and Herzegovina - MU No. 08/08)
- Paris Agreement with the United Nations Framework Convention on Climate Change- ("Official Gazette of Bosnia and Herzegovina" -MU No. 1/17)
- [Convention on Transboundary Effects of Industrial Accidents \(TEIA\) - \(Official Gazette of Bosnia and Herzegovina - MU No. 13/12\)](#)
- [Convention for the Protection of the Marine Ecosystem and the Coastal Areas of the Mediterranean \(Barcelona Convention\) - \(Official Gazette of Bosnia and Herzegovina - MU No. 26/98\)](#)
- Protocol on Protected Areas and Biodiversity in the Mediterranean (Official Gazette of Bosnia and Herzegovina - MU No. 26/98)
- Vienna Convention for the Protection of the Ozone Layer - Accepted by Succession (Official Gazette of the SFRY - MU 01/90 and Official Gazette of the Republic of Bosnia and Herzegovina, No. 13/94)
- Montreal Protocol on Substances that Deplete the Ozone Layer - Downloaded by Succession (Official Gazette SFRY-MU, No 16/90)

#### **UNDP Principals and Standards**

UNDP's Social and Environmental Standards (SES) underpin the organisations commitment to mainstream social and environmental sustainability into its programs and projects. The SES are an integral component of UNDP's quality assurance and risk management approach to programming. The project will be following the updated SES Policy 2021. Further details on the UNDP SES are available on the UNDP website:



<https://www.undp.org/content/undp/en/home/librarypage/operations1/undp-social-and-environmental-standards/>

The UNDP SES have been applied during development of the project. The SES objectives are to:

- strengthen the social and environmental outcomes of programs and Projects
- avoid adverse impacts to people and the environment.
- minimize, mitigate, and manage adverse impacts where avoidance is not possible.
- strengthen UNDP and partner capacities for managing social and environmental risks; and
- ensure full and effective stakeholder engagement, including through a mechanism to respond to complaints from project-affected people.

The project has been screened against using the UNDP Social and Environmental Screening Template. The screening indicated that the project would trigger most of the UNDP SES.



Table 2 describes the Principals and Standard triggers and outlines the requirements relevant to the project.

The proposed GCF interventions along with co-financed activities will be managed via a common project management structure. The Government has signed a contract with EIB for the co-financed activities that commit it to implement and operate those activities in accordance with the EIB Environmental and Social Standards (2022) as a minimum. It will be the Board and the Project Management Unit’s responsibility to ensure that all activities associated with the project meet the requirements of the UNDP SES including co-financing activities. The application of the ESMF and other safeguard documents will assist in achieving this.

During implementation the ESMF will be regularly reviewed and updated as necessary. Table 1



Table 2 shows the UNDP Standards that are triggered by the project, the relevant requirements under the standards as well as EIB Environmental and Social Standards and B&H laws relevant to those requirements. It is recommended that during the first review that a more detailed comparison is undertaken to confirm the highest standards that apply to each project activity.



Table 2 Summary of UNDP Social and Environmental Standards triggered by the project and their requirements for the project, along with EIB Environmental and Social Standards and B&H policies and legislation that align with UNDP SES requirements .

	Triggered	UNDP SES Requirements relevant to project	EIB Environmental and Social Standards (2 February 2022)	Relevant B&H Polices, Legislation, Regulations
<b>Programming Principles</b>				
Overarching Principle: Leave No One Behind	Yes	<ul style="list-style-type: none"> <li>Follow the rights-based approach to development, including the application of a gender perspective.</li> <li>Identify and include poor, vulnerable, excluded and marginalized groups</li> </ul>	<b>Standard 7 – Vulnerable Groups, Indigenous Peoples and Gender</b>	B&H Constitution
Human Rights	Yes	<ul style="list-style-type: none"> <li>Further the realization of human rights as laid down in the Universal Declaration of Human Rights and other human rights instruments.</li> <li>Uphold the principles of accountability and the rule of law, participation and inclusion, and equality and non-discrimination</li> </ul>	<p>Throughout EIB Standard, human rights considerations are fully integrated in environmental and social aspects</p> <p><b>Standard 1 – Environmental and Social Impacts and Risks</b></p> <p>Ensuring respect for human rights by integrating human rights impacts and risks into the impact assessment process</p> <p><b>Standard 2 – Stakeholder Engagement</b></p> <p>Engagement process shall be respectful of human rights</p>	<p><b><u>Constitution B&amp;H</u></b></p> <p>All persons in the territory of Bosnia and Herzegovina enjoy the human rights and freedoms referred to in paragraph 2 of this member, which includes:</p> <p>a) The right to life.  b) The right of a person not to be subjected to torture or to inhuman or degrading treatment or penalties.  c) The right of a person not to be held in slavery or servitude, or under duress or compulsion work.  e) The right to liberty and security of person.</p>



				<p>e) The right to a fair hearing in civil and criminal matters and other rights related to criminal proceedings.</p> <p>f) The right to private and family life, home and correspondence.</p> <p>g) Freedom of thought, conscience and religion.</p> <p>h) Freedom of expression.</p> <p>i) Freedom of peaceful assembly and freedom of association with others.</p> <p>j) The right to marry and to found a family.</p> <p>k) Right to property.</p> <p>l) The right to education.</p> <p>m) The right to freedom of movement and residence.</p> <p>Act of December 2000 on the Human Rights Ombudsman of Bosnia and Herzegovina</p>
Gender Equality and Women's Empowerment	Yes	<ul style="list-style-type: none"> <li>Promotion of gender equality and the empowerment of women</li> <li>Prevention and elimination of sexual exploitation, abuse and harassment (SEAH)</li> </ul>	<p><b>Standard 7 – Vulnerable Groups, Indigenous Peoples and Gender</b></p> <p>Address inequalities, including those that are gender-based, and other factors contributing to vulnerability, marginalization and/or discrimination within the context of the project.</p> <p>Promote gender equality as a basic human right crucial for sustainable development.</p> <p><b>Standard 9 – Health, Safety and Security</b></p> <p>Identify, assess and manage risks to the health and safety of project-affected people and communities, (including project related gender-based violence risks including SEAH) during the project lifecycle.</p>	<p><u><b>Law on gender equality (official gazette no. 102/09)</b></u> <a href="https://advokat-prnjavorac.com/zakoni/zakon_o_ravnopravnosti_spolova_B&amp;H.pdf">https://advokat-prnjavorac.com/zakoni/zakon_o_ravnopravnosti_spolova_B&amp;H.pdf</a></p> <p>This law regulates, promotes and protects gender equality, guarantees equal opportunities and equal treatment of all persons regardless of gender, in the public and private spheres of society, and regulated by protection from gender discrimination.</p> <p>Criminal Code of the Federation of Bosnia and Herzegovina, Official Gazette of FB&amp;H, Nos. 36/03, 37/03, 21/04, 69/04, 18/05, 42/10 and 42/11); Criminal Code of Republika Srpska, Official Gazette of RS, Nos. 49/03, 108/04, 37/06, 70/06, 73/10 and 67/13; Criminal Code</p>



				of the Brčko District (BD) of Bosnia and Herzegovina, Official Gazette of BD, No. 10/03  FB&H Law on Protection from Domestic Violence; RS Law on Protection from Domestic Violence,
Sustainability and Resilience	Yes	<ul style="list-style-type: none"> <li>Identify opportunities to advance sustainability and resiliency dimensions of development initiatives and to strengthen environmental management and protection</li> <li>Use and promote precautionary approach</li> </ul>	<p><b>Standard 4 – Biodiversity and Ecosystems</b></p> <p>Seek opportunities to enhance biodiversity and ecosystems whenever possible</p> <p>Application of precautionary principle</p> <p><b>Standard 5 – Climate Change</b></p> <p>Assess project's resilience to physical climate risks, its alignment with climate-resilient development pathways, and the options to reduce physical climate risks to the project, its natural environment and the people that may be affected by it.</p>	<p>International agreements (refer above)</p> <p>Act of 30 August 2013 on protection of the environment (Environmental, Climate and Sustainable Development Laws).</p>
Accountability	Yes	<ul style="list-style-type: none"> <li>Compliance with national law and obligations under international law, whichever is the higher standard</li> <li>Enable active local community engagement and participation in decision-making, particularly those at risk of being left behind</li> <li>Transparency through provision of timely,</li> </ul>		<p><b><u>Law on construction and spatial planning</u></b></p> <p>Local stakeholders' engagement is required by law on Construction in both entities as well as cantons. As per Law on Construction, all type of physical planning documentation (including water management objects), must be publicly displayed for period of at least 30 days (Article 47, Law on Construction RS). After that period, public hearing must be organized in local community within period of 30 days upon closure of public display (article 48, Law on Construction RS).</p>





		<p>accessible and functional information regarding supported activities, including on potential environmental and social risks and impacts and management measures</p> <ul style="list-style-type: none"> <li>• Ensure stakeholders can communicate their concerns and have access to rights-compatible complaints redress processes and mechanisms</li> <li>• Effective monitoring</li> </ul>		
<b>Project Level Standards</b>				
Standard 1. Biodiversity Conservation and Sustainable Natural Resource Management	Yes	<ul style="list-style-type: none"> <li>• Precautionary approach to be applied</li> <li>• Risk identification and assessment: Identify and address direct and indirect impacts on natural resources, biodiversity, ecosystems and ecosystem services</li> <li>• Risk reduction measures follow a mitigation hierarchy that favors avoidance of potential adverse impacts over</li> </ul>	<p><b>Standard 4 – Biodiversity and Ecosystems</b></p> <p>Application of precautionary principle</p> <p>Use of sectoral, land use and marine planning, the application of mitigation hierarchy to avoid, or where unavoidable, minimize further losses, restore and as last resort compensate any residual impacts on biodiversity and ecosystems – regardless of formal conservation status.</p> <p>Use of an ecosystem-based approach to assess biodiversity related impacts and risks</p> <p>Seek opportunities to enhance biodiversity and ecosystems whenever possible</p>	<p><b><u>Law on Forest 2016</u></b></p> <p>This law regulates the preservation and protection of forests and forest land, strengthening their environmental functions, forestry planning and forest management and forest land, economic functions, social functions, biological financing restoration and improvement of forests on the territory of the Federation of Bosnia and Herzegovina</p> <p><b><u>Law on environment protection 2008</u></b></p> <p>This Law regulates the competencies of bodies that perform nature protection activities, general measures nature conservation, assessment of the acceptability of interventions in nature, habitat types and ecologically</p>



		<p>minimization, mitigation where adverse residual impacts remain, and, as a last resort, application of offset and compensation measures.</p> <ul style="list-style-type: none"> <li>• no adverse impacts on critical habitats</li> <li>• under no circumstances will species known to be invasive be introduced into new environments</li> <li>• Forests: project activities: <ul style="list-style-type: none"> <li>○ are consistent with the conservation of natural forests and biological diversity, ensuring that they are not used for the conversion of natural forests;</li> <li>○ incentivize the protection and conservation of natural forests and their ecosystem services, and enhance other social and environmental benefits;</li> <li>○ enhance the sustainable management of forests, including the application of independent, credible certification for commercial, industrial-scale timber harvesting;</li> </ul> </li> </ul>	<p>Multiple criteria for critical habitats, including no measurable adverse impacts on critical habitats</p> <p>Species known to be invasive cannot be introduced under any circumstances</p> <p>Ecosystem services, including at a regional scale, to be considered in assessment</p> <p>Supply chains to be identified and impacts and risks affecting biodiversity and ecosystems to be assessed.</p> <p>Renewable natural resources shall be managed in a sustainable way.</p>	<p>significant areas, species and subspecies, protection of wild birds, protection and conservation of biodiversity, forest ecosystems, karst ecosystems, water and wetlands, protection of marine and coastal natural values, establishment of the European ecological network of specially protected areas - Natura 2000, protection measures species and subspecies, transboundary movement of protected wild species and subspecies, protection measures minerals and fossils, protected natural values, compensation, incentives, giving proposals for concessions on protected natural values and protected natural objects, planning and organization, inventory and monitoring, access to information and public participation, nature protection, promotion of education in nature protection, recognition and awards for achievements in nature protection, financing of nature protection, inspection supervision, penal provisions, transitional and final provisions.</p> <p><b>Act of 10 July 2012 on Fisheries</b></p>
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		<ul style="list-style-type: none"> <li>○ maintain or enhance biodiversity and ecosystem functionality in areas where forest restoration is undertaken;</li> <li>○ ensure that plantations are environmentally appropriate, socially beneficial and economically viable, and utilize native species wherever feasible.                             <ul style="list-style-type: none"> <li>• Use integrated water resources management approach to water resources</li> <li>• Avoid, and where avoidance is not possible, minimize adverse impacts on soils, their biodiversity, organic content, productivity, structure, water-retention capacity.</li> <li>• Sustainable management of living natural resources</li> <li>• When purchasing natural resource commodities, where possible, use primary suppliers that can demonstrate that they are not contributing to significant conversion or</li> </ul> </li> </ul>		
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		degradation of natural or critical habitats		
Standard 2. Climate Change and Disaster Risks	Yes	<ul style="list-style-type: none"> <li>Climate change and disaster risk analysis, planning and implementation – assess for climate change and disaster risks and their impacts to project activities and outputs as well as the possibility that project activities could increase exposure to such risks</li> <li>Minimize and avoid unwarranted increases in greenhouse gas emissions or other drivers of climate change from supported activities.</li> </ul>	<b>Standard 5 - Climate Change</b>  Assess project's resilience to physical climate risks, its alignment with climate-resilient development pathways, and the options to reduce physical climate risks to the project, its natural environment and the people that may be affected by it.  Assess GHG emissions at the project level and the projects alignment with pathways to limit global warming	<u><b>Law on construction and spatial planning</b></u>  This law regulates the system of spatial planning and spatial planning, preparation, preparation and adoption of spatial planning documents, location conditions, construction land management, issuance of building permits, types and content of technical documentation, construction of facilities and mutual relations between participants in construction, use and removal of buildings, legalization of buildings, supervision over the application of this law, competence and work of the Chamber of Engineers, and other issues of importance for landscaping, construction land and construction of buildings.  Article 11: Spatial planning is based on the principles of: a) protection of space in accordance with the principles of sustainable development, b) integrated planning, which combines all significant factors of development with consideration of the dynamics of needs and changes in space and resolving conflicts of interest in space by harmonizing functional, aesthetic, energy, economic and other criteria in planning, design and construction, c) harmonization of natural values with human activities (use of renewable energy sources, construction of energy efficient facilities, correct choice of location and inclusion of bioclimatic factors, respect for climate change, protection against earthquakes and other natural disasters and technical accidents, etc.),



<p>Standard 3. Community Health, Safety and Security</p>	<p>Yes</p>	<ul style="list-style-type: none"> <li>• Protect communities from hazards caused and/or exacerbated by project activities (including flooding, landslides, contamination or other natural or human-made hazards), disease, and the accidental collapse or failure of project structural elements.</li> <li>• Assess the risks to, and potential impacts on, the safety of affected communities during the design, construction, operation, and decommissioning of projects and establish preventive measures and plans to address them in a manner commensurate with the identified risks and impacts. A significant concern with major projects is SEAH and the spread of communicable diseases from workforces to the surrounding communities.</li> </ul>	<p><b>Standard 9 – Health, Safety and Security</b></p> <p>Promote, protect and monitor the health, safety and security of project workers throughout project life cycle</p> <p>Identify, assess and manage risks to the health and safety of project-affected people and communities</p> <p>Project workers and members of public to have access to a GRM</p> <p>Identify, assess and minimize the potential health and safety risks caused by natural hazards or extreme weather events</p> <p>Projects shall comply with the applicable national legislation and Standard 9 which reflects the core principles and essential procedural elements laid down by EU legislation.</p> <p>Provide workers with a safe workplace, including provision of PPE</p> <p>Take necessary measures to avoid, mitigate and manage risks and potential adverse</p>	<p><b><u>Law on construction and spatial planning</u></b></p> <p>This law regulates the system of spatial planning and spatial planning, preparation, preparation and adoption of spatial planning documents, location conditions, construction land management, issuance of building permits, types and content of technical documentation, construction of facilities and mutual relations between participants in construction, use and removal of buildings, legalization of buildings, supervision over the application of this law, competence and work of the Chamber of Engineers, and other issues of importance for landscaping, construction land and construction of buildings.</p> <p><b><u>Law on environment protection 2008</u></b></p> <p>This Law regulates the competencies of bodies that perform nature protection activities, general measures nature conservation, assessment of the acceptability of interventions in nature, habitat types and ecologically significant areas, species and subspecies, protection of wild birds, protection and conservation of biodiversity, forest ecosystems, karst ecosystems, water and wetlands, protection of marine and coastal natural values, establishment of the European ecological network of specially protected areas - Natura 2000, protection measures species and subspecies, transboundary movement of protected wild species and subspecies, protection measures minerals and fossils, protected natural values, compensation, incentives, giving proposals for concessions on protected natural values and protected natural</p>
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		<ul style="list-style-type: none"> <li>• Avoid or minimize the potential for community exposure to health risks and diseases that could result from or be exacerbated by project activities.</li> <li>• Infrastructure design and safety to be in accordance with national legal requirements, good international practices, and any international obligations and standards.</li> <li>• For construction activities, ensure appropriate control of site access, use of appropriate personal protective equipment, safely designed work platforms, appropriate engineering and administrative controls, and safety barriers. Construction personnel will have appropriate qualifications and training.</li> <li>• Apply concept of universal access in the</li> </ul>	<p>objects, planning and organization, inventory and monitoring, access to information and public participation, nature protection, promotion of education in nature protection, recognition and awards for achievements in nature protection, financing of nature protection, inspection supervision, penal provisions, transitional and final provisions.</p>
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		<p>design and construction of facilities and services</p> <ul style="list-style-type: none"> <li>• Avoid, or where avoidance is not possible, minimize potential community exposure to hazardous materials and substances that may be utilized in or released by project activities</li> <li>• Be prepared for emergencies eg plans, training, equipment and resources.</li> <li>• Avoid, mitigate and manage the risks and potential adverse impacts on health and safety of communities arising from the influx of project-related workers</li> <li>• avoid, or where avoidance is not possible, minimize such adverse impacts and implement appropriate mitigation measures that aim to maintain the value and functionality of ecosystem services of relevance to local communities.</li> </ul>		
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Standard 4. Cultural Heritage	Yes	<ul style="list-style-type: none"> <li>Protection of Cultural Heritage from damage, inappropriate alteration, disruption, removal or misuse</li> <li>Chance Finds procedures</li> <li>Consultation with stakeholders regarding Cultural Heritage</li> </ul>	<b>Standard 10 – Cultural Heritage</b> <i>Protection of cultural heritage from potential adverse impacts of project activities</i> <i>Chance Finds procedures</i> <i>Meaningful consultation with stakeholders</i>	<b><u>Law on Cultural Heritage</u></b> <p>This law regulates the types of cultural goods, the activity of protection and use of cultural goods and goods that enjoy prior protection, and other issues of importance for the activity of protection of cultural goods.</p>
Standard 5. Displacement and Resettlement	Yes	<p>To anticipate and avoid, or, when avoidance is not possible, minimize adverse social and economic impacts from land or resource acquisition or restrictions on land or resource use  <i>Where displacement is unavoidable, management plan required</i></p>	<b>Standard 6 – Involuntary Resettlement</b> <p>To avoid or, when unavoidable, minimize involuntary resettlement by exploring alternative projects, project designs and locations          To improve displaced persons' livelihoods and/or living standards, or at least restore them to pre-project levels          To mitigate social and economic impacts from unavoidable involuntary resettlement          Where project leads to involuntary resettlement, planning documents shall be prepared.</p>	<b>Law on Proprietary Rights</b> <p>The Law on Proprietary Rights regulates the general issues of acquiring, using, disposing of, protecting and terminating ownership rights and other proprietary rights and possession rights, including the issues of restricting such rights, the right of servitude, co-ownership and joint ownership rights, the procedure for acquiring property rights over land and/or structures erected on someone else's land</p> <b>Law on Administrative Procedures of FB&amp;H</b> <p>The Law on Administrative Procedures of FB&amp;H regulates the procedures applied by administration bodies in deciding upon citizens' rights and obligations within the framework of administrative procedures.</p> <b>Law on Social Protection, Protection of Civilian War Casualties and Protection of Families with Children of FB&amp;H</b> <p>This law regulates Social welfare, which in terms of this law is an organized activity in the Federation, aimed at ensuring the social security of its citizens and their families in need.</p> <b>Law on Expropriation of FB&amp;H</b>





				The Law on Expropriation of FB&H regulates the conditions and procedure for expropriation of property for construction of facilities in public interest, compensation eligibility and amounts, handling of grievances and disputes handling and other issues pertaining to the expropriation process.
Standard 6. Indigenous Peoples	N O			
Standard 7. Labor and Working Conditions	Ye s	<ul style="list-style-type: none"> <li>• Terms and conditions of employment – written labor management procedures. Workers to be advised of conditions of their employment.</li> <li>• Non-discrimination and equal opportunity. Labour management procedures shall set out measures to prevent and address SEAH.</li> <li>• Workers organizations – freedom of association and recognition of the right to collective bargaining</li> <li>• No forced or child labor</li> <li>• Occupational health and safety - protect and promote the safety and health of workers</li> </ul>	<b>Standard 8. Labor Rights</b> Ensures fair, non-discrimination and equal treatment and opportunity of workers Zero tolerance for use of forced labor and child labor Respecting principles of freedom of association and collective bargaining Protecting and promoting safety and health at work Promoting a sound worker-management relationship Ensuring that accessible and effective means to raise and address workplace concerns are available to workers. The Standard aligns with and supports UNDP requirements relevant to this project.	<b>Labor Law 2015 Official gazette No. 26/16 and 89/18:</b> This law regulates the conclusion employment contracts, working hours, salaries, termination employment contract, exercise of rights and obligations under employment relationship, concluding collective contracts, peaceful resolution of collective labor disputes and other employment issues, if by other law or international agreement not otherwise specified. In accordance with Labor Law (FB&H: <a href="https://advokat-prnjavorac.com/legislation/Labour-Law-FB&amp;H-2015.pdf">https://advokat-prnjavorac.com/legislation/Labour-Law-FB&amp;H-2015.pdf</a> - RS: <a href="https://advokat-prnjavorac.com/legislation/Labour-Law-of-RS.pdf">https://advokat-prnjavorac.com/legislation/Labour-Law-of-RS.pdf</a> , all rights of workers are defined and protected. Union formation is allowed in accordance with article 14. In addition, there are labor inspections that shall prohibit unpaid overtime, child labor ...).



<p>Standard 8. Pollution Prevention and Resource Efficiency</p>	<p>Yes</p>	<ul style="list-style-type: none"> <li>• Pollution prevention: avoid release of pollutants, where not avoidable, minimize and/or control intensity and mass flow of their release.</li> <li>• Ambient considerations: adverse impacts on existing ambient conditions requires consideration of finite assimilative capacity of the environment, existing and planned land use, existing ambient conditions, the project's proximity to ecologically sensitive or protected areas, the potential for cumulative impacts with uncertain and irreversible consequences, and strategies for avoiding and minimizing the release of pollutants.</li> <li>• Wastes: seek to avoid generation of waste, where not possible adopt waste</li> </ul>	<p><b>Standard 3. Resource Efficiency and Pollution Prevention</b></p> <p>Aims to ensure an integrated approach to resource efficiency, pollution prevention and control of emissions to air, water and land, noise pollution, radiation, prevention of accidents, as well as waste management and the safe use of hazardous substances and pesticides, avoiding the shift of pollution from one environmental medium to another, ensuring consistency with the "Do Not Significant Harm" principle.</p> <p>The Standard aligns with and supports UNDP requirements relevant to this project.</p>	<p><b><u>Law on water (official gazette no. 70/06</u></b> <b><u><a href="https://www.voda.ba/uploads/docs/47hrv.pdf">https://www.voda.ba/uploads/docs/47hrv.pdf</a></u></b></p> <p><i>The purpose of this law is to ensure water management with the aim of:</i></p> <ol style="list-style-type: none"> <li><i>1. reduction of water pollution, achieving good water status and prevention of water degradation,</i></li> <li><i>2. achieving sustainable water use,</i></li> <li><i>3. ensuring fair access to water,</i></li> <li><i>4. encouraging social and economic development,</i></li> <li><i>5. protection of ecosystems,</i></li> <li><i>6. reducing the risk of floods and other negative impacts of water,</i></li> <li><i>7. ensuring public participation in decision-making related to water,</i></li> <li><i>8. prevention and resolution of conflicts regarding water protection and use,</i></li> <li><i>9. fulfillment of obligations from international agreements that are binding for Bosnia and Herzegovina.</i></li> </ol> <p><b><u>Water permit (article 107, Law on water)</u></b></p> <p><i>Any construction works in rivers must obtain water permit</i> <i>(<a href="https://www.voda.ba/uploads/docs/Zahtjev_za_izdavanje_VODNE_DOZVOLE.pdf">https://www.voda.ba/uploads/docs/Zahtjev_za_izdavanje_VODNE_DOZVOLE.pdf</a> – bullet 9), issued by entity water agency. Water permit clearly states, construction company must provide elaborate documentation of qualitative and quantitative testing of water and sediment</i></p>
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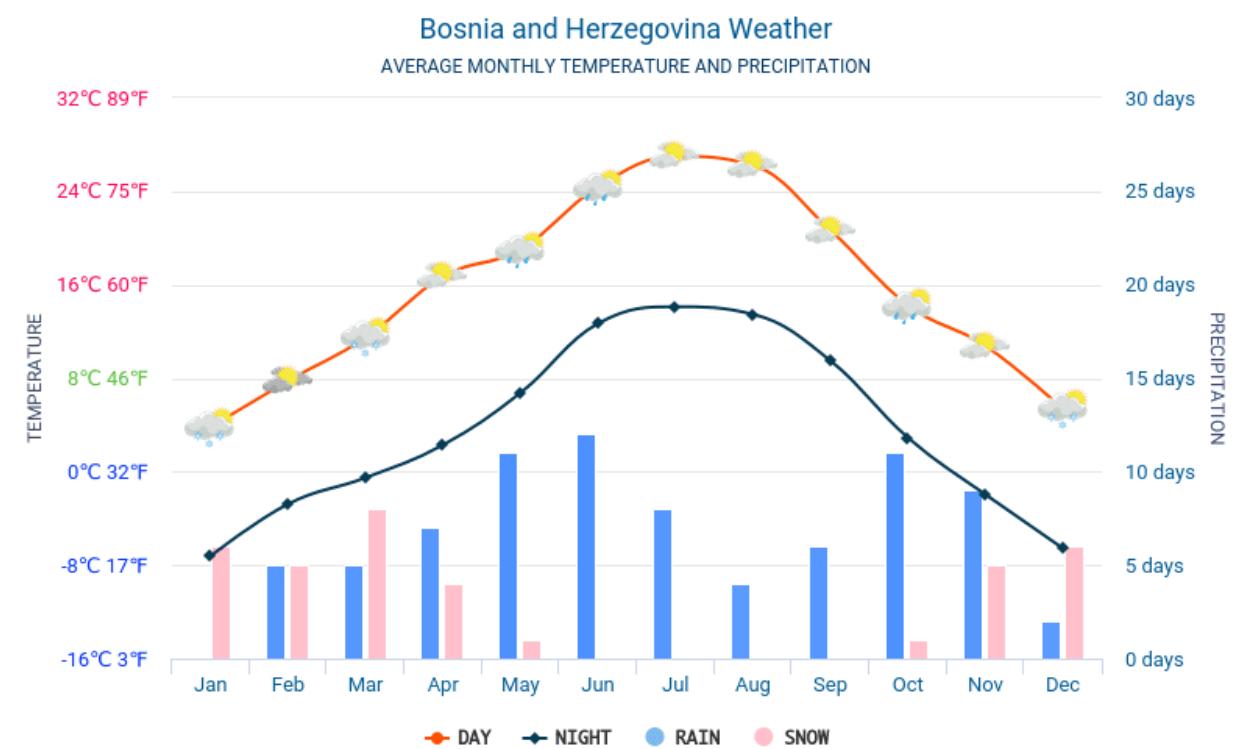
		<p>management hierarchy (reduce, reuse, recycle)</p> <ul style="list-style-type: none"> <li>• Hazardous materials: avoid or minimize and control release and exposure to hazardous materials.</li> <li>• Resource efficiency: design and implement project in manner that promotes efficient use and consumption of resources.</li> </ul>	<p>during construction, thus minimizing contamination of river and soil. In addition, all measures for minimizing of soil contamination, water inspector (appointed by water agency) must inspect site for such irregularities.</p> <p><b><u>Law on waste management (official gazette no 33/03 -</u></b>  <a href="https://mkipgo.ks.gov.ba/sites/mkipgo.ks.gov.ba/files/2021-02/MPZ_Zakon_upravljenje_otpadom_33-03_0_0.pdf">https://mkipgo.ks.gov.ba/sites/mkipgo.ks.gov.ba/files/2021-02/MPZ_Zakon_upravljenje_otpadom_33-03_0_0.pdf</a></p> <p><i>This law regulates:</i></p> <ul style="list-style-type: none"> <li>- all categories of waste, except for the waste specified in paragraph 3 of this Article;</li> <li>- all types of waste management activities, operations and facilities.</li> </ul> <p><i>The provisions of this Law shall also apply to:</i></p> <ul style="list-style-type: none"> <li>-waste generated by resource exploration, extraction, treatment and exploitation mineral resources and quarrying.</li> <li>-liquid waste;</li> <li>-animal waste and other non-hazardous materials of natural origin that can be used for agricultural purposes,</li> <li>-deferred explosives, unless regulated by a special regulation.</li> </ul> <p><b>Act of 10 July 2012 on Fisheries</b></p>
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IV. DESCRIPTION OF EXISTING ENVIRONMENT

Climate

The climate is characterised by hot summers and cold winters. Areas of high elevation have a moderate continental climate with short, cool summers and long, severe winters. The southern tip has a Mediterranean climate with coastal area characterised by mild, rainy winters.



[hikersbay.com/climate/bosniaandherzegovina](https://hikersbay.com/climate/bosniaandherzegovina)

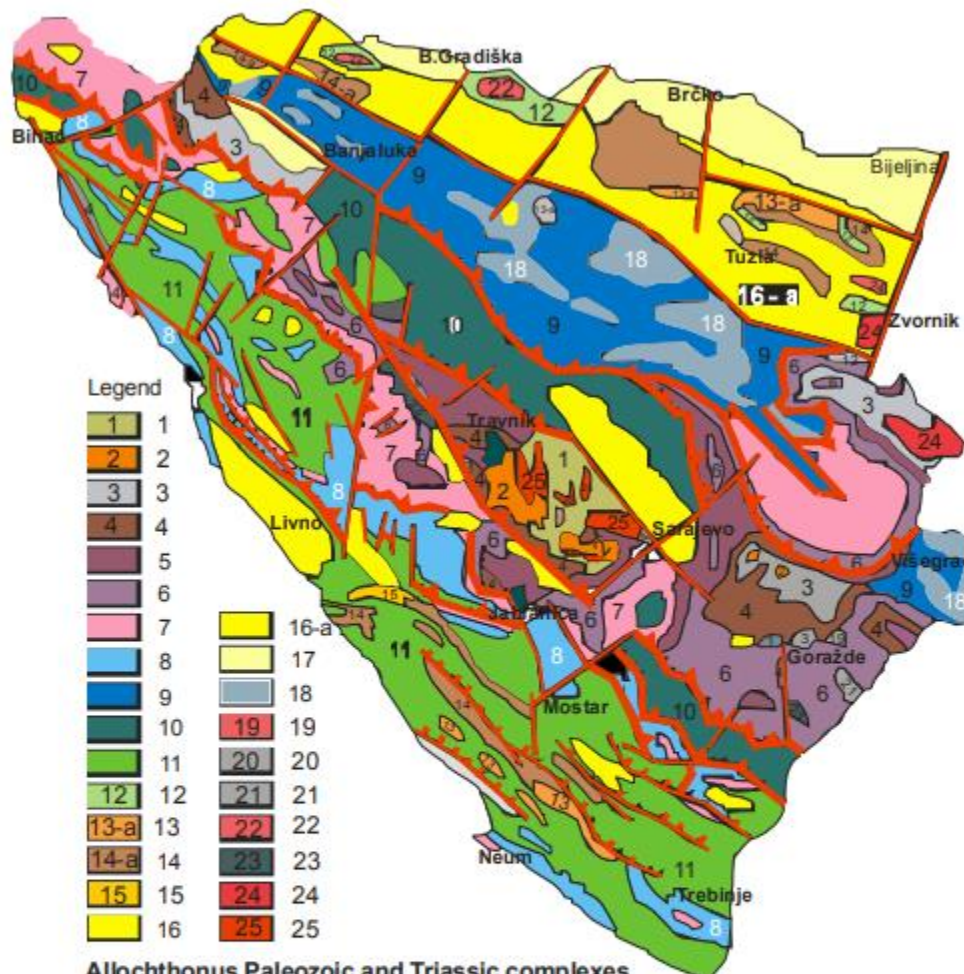
Figure 2 Average weather conditions in Bosnia Herzegovina

Geology, Topography and Soils

Geology

The geological composition of the Dinaric chain of mountains in Bosnia consists primarily of limestone (including Mesozoic limestone), with deposits of iron, coal, zinc, manganese, bauxite, lead, and salt present in some areas, especially in central and northern Bosnia. Herzegovina has a dominant karst topography.

# Geological map of Bosnia and Herzegovina



## Allochthonous Paleozoic and Triassic complexes

**Metamorphic Rocks:** 1. Silurian, **Sedimentary Rocks:** 2. Devonian, 3. Carboniferous, 4. Late Permian, 5. Early Triassic, 6. Middle Triassic, 7. Late Triassic, **Volcanic Rocks:** Variscan=25. Rhyolite group, Middle Triassic=23. Basalt group **Plutonic Rocks:** Middle Triassic=19. Alkali-feldspar syenite, 20. Gabbro group, 21. Granodiorite-diorites group

## Adriatic carbonate platform (External Dinarides)

8. Jurassic, 11. Cretaceous, 13. Paleocene, 14. Eocene

## Passive continental margin (Flysch Bosniaque)

10. Jurassic-Cretaceous

## Ophiolite zone

9. Late Jurassic-Late Cretaceous (melange), 18. Middle Jurassic-Late Jurassic (ophiolite formations)

## Active continental margin (Vardar zone)

**Sedimentary Rocks:** 12. Late Cretaceous, 13 a. Paleocene, 14 a. Eocene

**Plutonic Rocks:** 22. Eocene (granite group), **Volcanic Rocks:** 24. Miocene (trachyte group)

## Post-orogenic Oligocene, Neogene and Quaternary sediments

15. Eocene-Oligocene (Promina), 16. Miocene intramountain fresh-water sediments,

16 a. Miocene South Pannonian Basin, 17. Pliocene

Hazim Hrvatović

Figure 3 Geological map of Bosnia and Herzegovina. (Hrvatovic 2006)



The oldest sediments in Bosnia and Herzegovina originate from the early Palaeozoic era i.e. the Silurian era represented in the 'Bosnian Schist Mountains'.<sup>18</sup> These layers are represented by schist sediments, marbles, dolomites, limestone and classic rock, which were impregnated with various igneous rocks. These deposits are also very tectonically fractured and collected. Subsequent layers of early and late Palaeozoic era were deposited i.e. layers from the Devonian and carbon.

Palaeozoic sediments can mainly be found in the Una-Sana area, Central Bosnian Schist Mountains, eastern and south-eastern Bosnia and Posara and Motajica. The Central Bosnian Palaeozoic complex stretches from Ivan saddle in the southeast to the northwest of Jajce, and between the Sarajevo-Zenica basins in the northeast to the Gornji Vrbas-Uskoplje basin in the southwest.

The Palaeozoic in the southeast Bosnian area is called pračanski Palaeozoic which extends to the east and northeast of the mountain Jahorina to the river Drina. In the pračanski Palaeozoic chalk cliffs from the Devonian era are mainly represented. Besides the Devonian deposits, carbon sediments can also be found.

Northeast of the pračanski Palaeozoic is the Drina Palaeozoic which extends from Srebrenica to Zvornik in the Adriatic gulf and the lower stream of Drinjača.

In the Una-Sana Palaeozoic in Bosanski Novi and Ljubija deposits from the Devonian era are represented. Carbon constitutes out of different clastics, which include both igneous rocks and a little dolomite and limestone.

The next era of crustal development in the Bosnia and Herzegovina region was the Mesozoic orogenic cycle, which was developed in three divisions: the Triassic, Jurassic and Cretaceous.

Sedimentation, tectonic and magmatic changing of the Mesozoic deposits lasted in a range of 220 million to 70 million years prior to today's geology. Mesozoic sediments are widespread in the interior, central and outer layers of the Dinarides. Mesozoic sediments in the outer Dinarides are classic carbonate sediments, while the central and inner Dinarides have volcano-sedimentary and flysch sediments.

The Triassic sediments spread over the Vrnograč and Bosanski Novi band over western Bosnia, north and northeast Herzegovina and southeast Bosnia. The second broader band goes from Vareš over Olovo, Glasnica and Romanija to Višegrad.

The Jurassic period sediments occupy the largest part of the outer Dinaric zone, where it is mostly developed in the limestone-dolomite facies. It is located on the area of B&H to Gacko and Trebinje. The Jurassic age volcano sediment formations are also found in the central zone from Kozara through central Bosnia to Drina.

The Cretaceous deposits are widespread in the wider or narrower bands from the border with Montenegro to Bosnian Grahovo, B&H and Bosanska Krupa in the northwest, and in the interior between Jajce, Banja Luka and mountains Ranča and Vlašić.

The beginning of the sedimentation of this epoch started 70 million years ago and continues to this day. Quaternary is present in the geological structure of the Dinarides in the territory of Bosnia and Herzegovina.

Deposits are developed on the peripheral north-eastern and northern parts, and on the southern and south-western parts of the country. Igneous rocks are represented in these sedimentations, especially coal deposits. In addition, beside Neocene limestone and classic deposits, freshwater sediments are present, of which the largest one is the Sarajevo-Zenica coal basin. The youngest Pliocene and Quaternary deposits are widespread, in almost all basins and valleys. Special are the Holocene deposits represented by pebbles, sand, loam and clay, and limestone and cave deposits.

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<sup>18</sup> [https://www.visitmycountry.net/bosnia\\_herzegovina/en/index.php/geography/27-vmc/geografija/225-geological-structure-of-bosnia-and-herzegovina](https://www.visitmycountry.net/bosnia_herzegovina/en/index.php/geography/27-vmc/geografija/225-geological-structure-of-bosnia-and-herzegovina)



### **Geotectonic regions**

Three geotectonic belts can be distinguished in Bosnia and Herzegovina, they coincide with the division of the Dinarides – the inner, central and outer.

The northern tectonic belt is bordered in the north by the Sava trench, in the south with the Sprečko-Kozara dislocation. In this zone three tectonic shapes were formed: Horst, basins and Quaternary depressions. Horsts are: Motajica, Prosara, Majevisa, Kozara, Vučjak and Trebava. Basins are: Prijedor-Omar-Dubica, Prnjavor, Srednjobosanski and Tuzla basin. Quaternary depression: Ivanjsko-Omarska, Bosansko-Podrinjska, Srednje-posavska, Semberija and Spreča.

The central tectonic belt is bordered to the north with the Sprečko-Kozarska dislocation and from the south with a zone of high Karst. In this zone several tectonic units are distinguished: Central ophiolitic zone, Anticline of the Drina Paleozoic, the zone of Jurassic and Cretaceous flysch, Central Bosnian Schist Mountains, the Una-Sana Paleozoic, and a number of freshwater Neocene basins.

The south tectonic belt extends southwest from the Bosnian Schist Mountains all the way to the Adriatic Sea. It is composed out of thick layers of limestone and dolomite, and from Paleocene flysch sediments near the Adriatic basin.

### **Seismic Activity**

Bosnia's seismotectonic seems to follow the Mediterranean marine regime. Earthquakes occur mostly in the outer Dinaric Alps (southern Bosnia), while the strongest earthquakes occur within the Sarajevo Fault system in southern and north western Bosnia. In addition to active tectonics being strong, crustal earthquakes occur often as well. Due to Bosnia's rich hydrogeology, crustal loading such as by snow and rain, or reservoir inundation, represents the most important secondary seismogenic source in the region.<sup>19</sup>

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<sup>19</sup> Onerbashich, M. and Sijaric, G (2006). Seismotectonics of Bosnia – Overview. Acta Geodyn. Geomater., Vol 3, No.2, 17-29



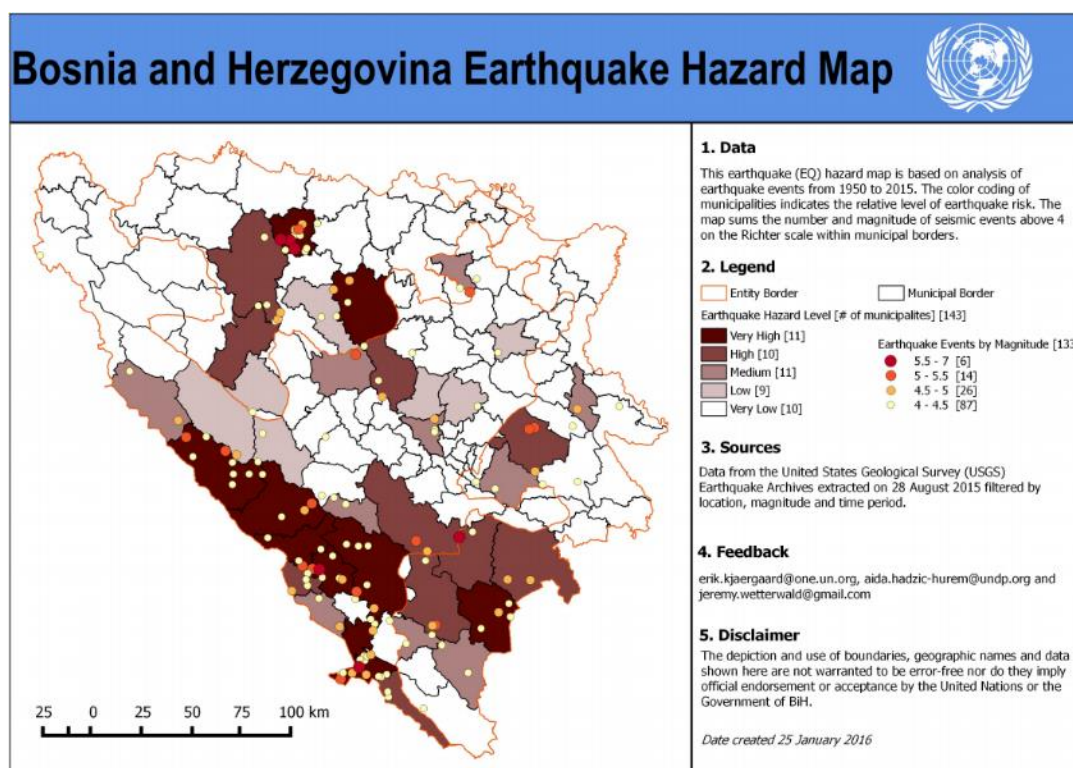


Figure 4 Bosnia and Herzegovina Earthquake Hazard Map (UNDP 2016)

Taken as a whole, the earthquake hazard for Bosnia and Herzegovina is rated as medium.<sup>20</sup> However, it can be seen from Figure 4 that the hazard is not evenly spread across the country.

### Topography

The country is mostly mountainous, encompassing the central Dinaric Alps. The northeaster parts reach into the Pannonian Plain, while in the south it borders the Adriatic. The Dinaric Alps generally run in a southeast-northwest direction and get higher towards the south. The highest point of the country is the peak of Maglić at 2,386 metres (7,828.1 feet), on the Montenegrin border. Major mountains include Kozara, Grmeč, Vlašić, Čvrsnica, Prenj, Romanija, Jahorina, Bjelašnica and Treskavica. In the central and eastern interior of the country the geography is mountainous, in the northwest it is moderately hilly, and the northeast is predominantly flatland.

<sup>20</sup> <http://thinkhazard.org/en/report/34-bosnia-herzegovina/EQ>





Figure 5 Topography of Bosnia and Herzegovina<sup>21</sup>

## Soils

There is a variety of soil types in Bosnia and Herzegovina. Soil type generally reflects the underlying geology and is influenced by topography. Figure 6 provides a map of soil types across Bosnia and Herzegovina.

The following summarises the topographic areas and their soils:

- **Flat or low-lands zone** - Flat or low-lands zone is found in the northern part of B&H and represents the most valuable land resource. There, the degree of development of primary and processing food production is much higher than in the hilly-mountainous areas. The most common types of soil are: Cambisols, Albeluvisols, Luvisols, Fluvisols and Gleysols.
- **Hilly zone** - The hilly zone is more heterogenous in terms of soil. Considerable part of this zone is sloped above 13% and the processes of erosion are very marked. The erosion processes are further enhanced by excessive and inappropriate way of soil farming, lack of water and soil conservation measures and preference being given to row crops (corn and potato) on such terrains. The most common types of soil are: Cambisols, Luvisols, Vertisols and Regosols.
- **Mountain zone** - The erosion processes are present here too, although these lands are mostly covered by forests and grasslands. As for sowing crops, rye, barley, oats and potato dominate. The most common types of soil are: Cambisols, Leptosols, Regosol and Acrisols.
- **Mediterranean zone** - In view of the warmer climatic conditions this area has a possibility of growing a wide array of crops and of developing intensive farming, so that apart from land farming crops, the vegetable crops of early vegetables are also being cultivated for the market. Fruit-growing and vine-

<sup>21</sup>[https://en.wikipedia.org/wiki/Geography\\_of\\_Bosnia\\_and\\_Herzegovina#/media/File:Bosnia\\_and\\_Herzegovina\\_topographic\\_map.svg](https://en.wikipedia.org/wiki/Geography_of_Bosnia_and_Herzegovina#/media/File:Bosnia_and_Herzegovina_topographic_map.svg)

growing are also developed here, so that this region is also called the region of southern crops. The most common types of soil are: Cambisols, Regosol, Fluvisols, Luvisols and Histosols

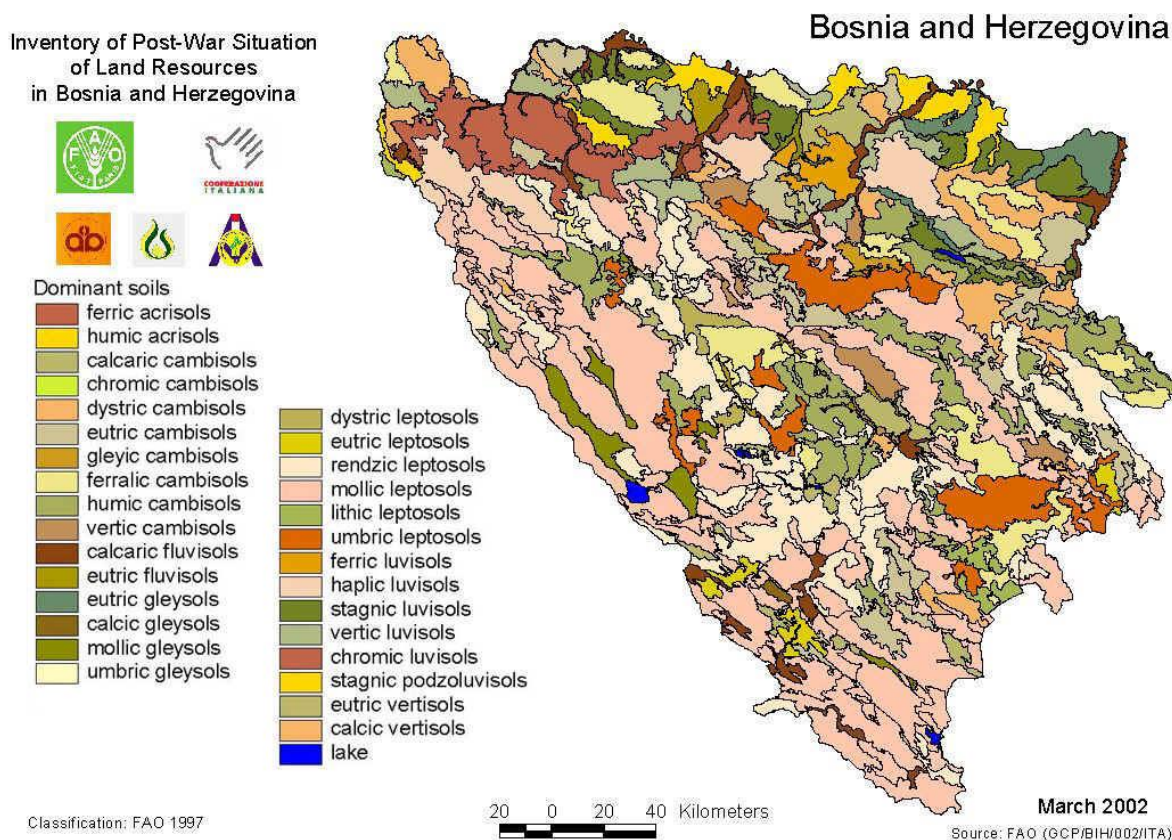


Figure 6 Soils in Bosnia and Herzegovina<sup>22</sup>

### Surface Water

There are two main river basin systems in B&H – the Sava Basin (Vrba, Una-Sana and Bosna and Drina) and the Adriatic Sea Basin (Neretva and Trebisnjica rivers). Sava river basin is at highest risk of flooding, while Adriatic Sea Basin faces a lower risk of flooding largely due to its karstic geology and heavily modified hydrology from HPP dams. The main flooding sources in B&H are fluvial, pluvial, torrents and groundwater.

There are seven major rivers of Bosnia and Herzegovina:

The Sava is the largest river of the country and forms its northern natural border with Croatia. It drains 76% of the country's territory into the Danube and then the Black Sea. The Una, Sana and Vrba are right tributaries of Sava River.

The Una in the northwest part of Bosnia flows along the northern and western border of Bosnia and Croatia and through the Bosnian city of Bihać. It is popular for rafting and adventure sports. The Una River has a watershed of 9640 km<sup>2</sup> and a mean discharge of 290 m<sup>3</sup>/sec.

<sup>22</sup> <http://www.apipnm.org/swlwpnr/reports/y te/z ba old/ba.htm#soils>



The [Sana](#) flows through the city of Sanski Most and Prijedor and is a tributary of the river Una in the north.

The Vrbas flows through the cities of Gornji Vakuf – Uskoplje, Bugojno, Jajce, Banja Luka, Srbac and reaches the river Sava in the north. The Vrbas flows through the central part of Bosnia and flows outwards to the North. The Vrbas River has a watershed of 6386 km<sup>2</sup> and has a mean discharge of 100 m<sup>3</sup>/sec.

The Bosna is the longest river in Bosnia and is fully contained within the country as it stretches from its source near Sarajevo to the river Sava in the north. It gave its name to the country. The Bosna River has a watershed of 10,460 km<sup>2</sup> and mean discharge of 170 m<sup>3</sup>/sec.

The Drina flows through the eastern part of Bosnia, at many places in the border between Bosnia and Serbia. The Drina flows through the cities of Foča, Goražde Višegrad and Zvornik. It has a watershed of 19,570 km<sup>2</sup> and mean discharge of 370 m<sup>3</sup>/sec. A small part of the Drin watershed is in Albania.

The Neretva River is the most significant transboundary river basin in the Adriatic Sea watershed. The Neretva is the major river of Herzegovina and the only major river that flows south, into the Adriatic Sea. The Neretva originates in Bosnia and Herzegovina. Of its total length of 222 km only about 25 km lies within Croatia, but this area includes two thirds of the Neretva delta, which is known for its globally significant biodiversity. The middle and lower stretches of the Neretva, which flow through Bosnia and Herzegovina contribute heavy loads of pollution, which threaten the delta biodiversity. Operation of the five hydro power plants in the upper and middle courses of the Neretva result in significant drops in water levels in the Neretva in the summer, altering the natural habitat. The river is famous as it flows through the city of Mostar.

The project will be targeting locations in the basins of Vrbas, Una-Sana, Bosna and Drina Rivers in the Sava Basin and Neretva and Trebisniica Rivers in the Adriatic Sea Basin.



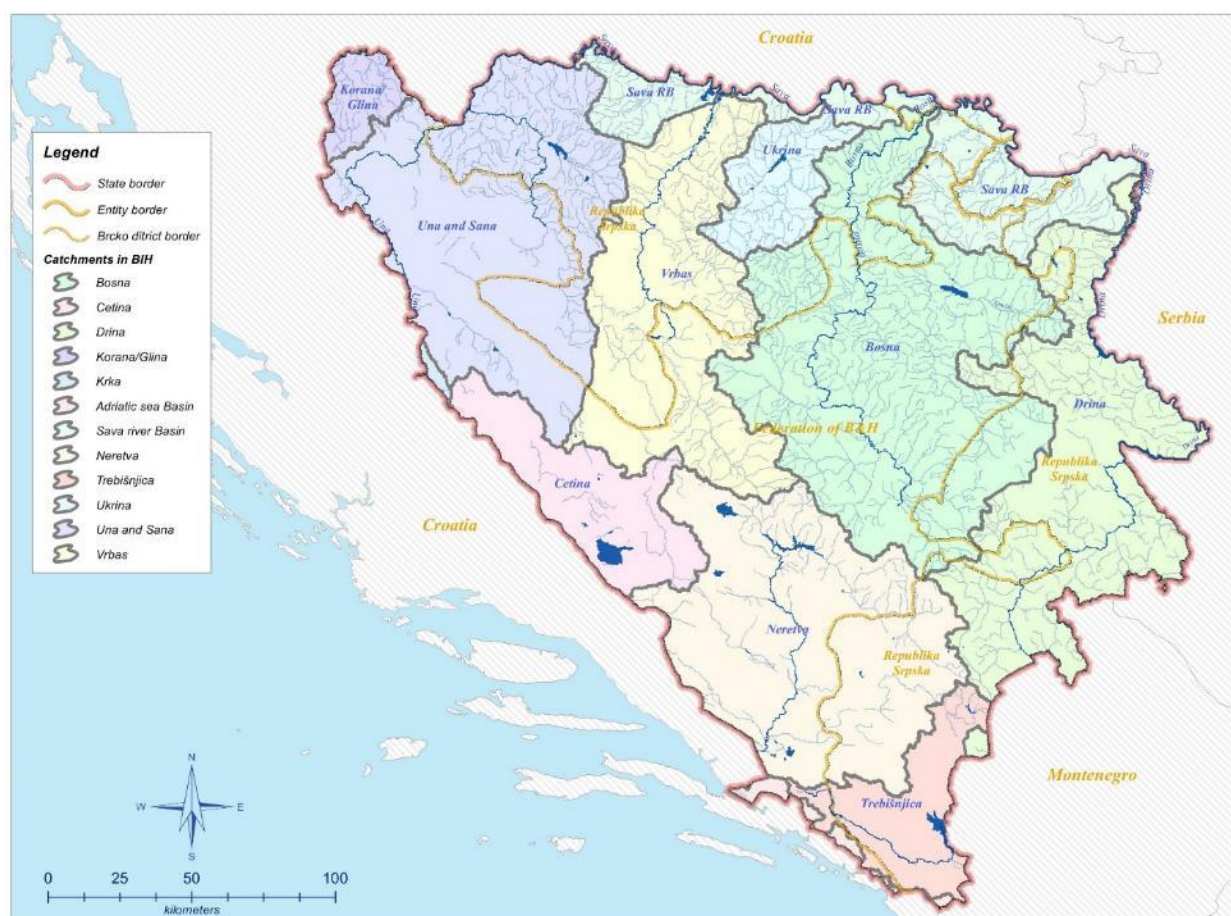


Figure 7. River basins and rivers of Bosnia and Herzegovina

Bosnia and Herzegovina has considerable water resources that represent an important economic potential. The territory of Bosnia and Herzegovina receives annually some 1250 mm of precipitation. Freshwater river basins are the key water resources in Bosnia and Herzegovina. The territory of Bosnia and Herzegovina lies within two major basins - the Black Sea and the Adriatic Sea basins. The major stream of the Black Sea basin is the Sava River, whereas the Neretva, Trebišnjica and Cetina Rivers are the major rivers of the Adriatic Sea basin. There are seven river basins in Bosnia and Herzegovina, which are transboundary with cantons, entities, and other countries: Una-Sana, Vrbas, Bosna, Drin, Sava, Neretva, and Cetina.

The rivers of Bosnia and Herzegovina are characterized by high gradients and relatively high run-off (22 l/sec per km<sup>2</sup>). All the rivers flow through rough mountainous areas in upper parts, while in downstream sections, close to the river mouth or confluence, they flow through plains where they are liable to flooding<sup>23</sup>.

There are about 30 water reservoirs in Bosnia and Herzegovina, primarily on the Neretva and Trebišnjica basin, and the Drina. Most are designed for hydropower and all are important for flood control, drinking water supply and

<sup>23</sup> <http://web.worldbank.org/archive/website00983A/WEB/OTHER/BEA9848F.HTM?Opendocument&Start=1&Count=5> accessed 3/11/19

irrigation. The total volume of the reservoirs is about 3.9 BCM with about 90% belonging to the Adriatic Sea basin and the rest to the Black Sea.

Figure 8 illustrates the location of existing hydropower plants in B&H, also shown are the locations for proposed GCF and government measures. Note, with the exception of the most southern area of B&H, HPPs are not proximate to interventions.



Figure 8 Location of hydropower plants in B&H

The Project's Feasibility Study provides details of the hydraulic characteristics, including information on the HPPs, in each of the basins that the project is working in.

### Water Quality.

Before the war, Bosnia and Herzegovina was the industrial heartland of the pre-existing Federal Republic of Yugoslavia and most of the rivers were severely polluted by industrial wastewater discharges.<sup>24</sup> Industrial production has plummeted and therefore surface water pollution has decreased. Water quality is, however, suspect and in some cases clearly unsatisfactory. The water quality monitoring system collapsed during the war and post-

<sup>24</sup> *ibid*



war data on water quality is limited. The system of monitoring stations is slowly being rehabilitated, largely with donor assistance.

Wastewater (sewage) treatment in Bosnia and Herzegovina is limited and most of the populations' wastewater continues to be discharged directly and without treatment into the closest water flows or bodies or into karstic holes, which are connected to groundwater. Primarily because of this pollution surface water quality, particularly immediately downstream of municipalities is generally low. The most polluted rivers are Vrbas, Bosna and the lower part of the Sava. Only the most upstream sections of the Una, Drin, and Neretva maintain high water quality.

Uncontrolled deforestation and erosion of soil and mountains streams have resulted in eutrophication of surface waters as well creation of alluvia and sludge that increase the risk of flooding and water pollution. There is no information on non-point source pollution.

Water resources are also polluted by direct disposal of solid waste into rivers.

There are at present 134 active hydrological stations, of which 119 are automatic gauging stations.<sup>25</sup> Water monitoring in Bosnia and Herzegovina includes information and data on water abstraction and flow (including hydraulic geometry), microbiological quality, biochemical oxygen demand (BOD5), calcium carbonate (CaCO<sub>3</sub>), calcium (Ca), magnesium (Mg), iron (Fe), copper (Cu), chrome (Cr), nickel (Ni) and cadmium (Cd) in rivers, as well as microbiological quality and nutrients in fresh water (e.g. nitrate (NO<sub>3</sub>), nitrogen (N), phosphorus (P)). Physical properties of water quality (e.g., temperature, pH, conductivity, dissolved oxygen) are collected for both rivers and fresh water.

### **Flooding**

Changes in annual rainfall distribution and increasing rainfall extremes have been driving increased frequency and intensity of floods, that is, the pluviometric regime has been greatly altered. Flooding occurs almost every year, however, in the last two decades, Bosnia and Herzegovina has been seen several extreme floods (2004, 2010, 2014).

Flash floods generally derive from high intensity and short duration rainfall, which may be caused by heavy rain associated with a severe thunderstorm, hurricane, tropical storm, or meltwater from ice or snow flowing over ice sheets or snowfields. Such rains cause torrents in a short time that destroy everything that is in their way. The hydrological regime of torrential watercourses is specific; they have a large range of flux and a characteristic shape of hydrograph of a large flood wave with a short time base (typically hours).

Table 3 shows the numbers of significant flood events and fatalities from 1925 to the present.

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<sup>25</sup> United Nations Economic Commission for Europe (2018) Bosnia and Herzegovina Environmental Performance Reviews, Third Review

**Table 3 Historical Flooding Events and Fatalities in Bosnia and Herzegovina**

Date/Year	Location/River	Number of deaths	Age and Gender	Setting of fatality	Type of flood events
10/11/1925	Mostar/Neretva	1	M	Organized action - catching floating logs	Fluvial flood/extensive rainfall
14-15/11/1925	Bugojno/Vrbas	7	-	-	Fluvial flood/extensive rainfall
15/11/1934	Osijek village/Bosna	1	M	-	Fluvial flood/extensive rainfall
1965	Sarajevo/Miljacka	1	M	-	Fluvial flood/extensive rainfall
13&17/07/1975	Tuzla/Jala	2	-	-	Flash flood
23/07&14/08/1976	Tešanj/ Tešanjka	9	-	-	Flash flood/Landslide
22/06/2010	Šamac/Bosna	1	-	-	Sudden snow melt/extensive rainfall
22/06/2010	Čelinac, Štrbe village/Jošavka	1	-	-	Fluvial flood/extensive rainfall
May, August 2014.	Šamac/Bosna	2	M (76), M	-	Fluvial flood/extensive rainfall
	Doboj/Bosna	11	M(63), M (90), F(88), F (91), F(82), M(53), M(73), M(90), F(76), 2NN	-	Fluvial flood/extensive rainfall
	Vukosavlje/Bosna	1	-	-	Fluvial flood/extensive rainfall
	Modriča/Bosna	2	M (82), F (80)	-	Fluvial flood/extensive rainfall
	Dvorovi/Drina	1	M	-	Landslide caused directly by flood
	Vlasenica/Drina	1	F (70)	-	Landslide caused directly by flood
	Donji Žabar/Sava	1	-	-	Fluvial flood/extensive rainfall
	Domaljevac/Bosna	2	-	-	Fluvial flood/extensive rainfall
	Srbac/Vrbas	1	M (65)	Fell off the boat while trying to rescue	Fluvial flood/extensive rainfall
	Banja Luka/Vrbas	1	M (30)	Victim was swept away from vehicle	Flash flood
	Čelinac, Barakovac village/Crni potok, Jošavka (VRB)	3	M (37)	(1,2) Attempted to cross the stream by vehicle	Flash flood
			F (42)		





			M (65)	(3) Attempted to help a women with the kids to cross Jošavka river	
<b>Total</b>		<b>49</b>			

## Groundwater

Groundwater in Bosnia and Herzegovina is found in three geographically separate areas with special characteristics. In the northern part of the country, the ground water reserves are within alluvial connected sediments along the Sava River and its tributaries at a depth of about 50 m. Artesian water is found at 100-200 m. In the central part of the country, groundwater accumulates in caves and cavities of limestone massifs and emerges on the surface as lime wells in the river basins of Una, Sava, Bosna, Drin and Neretva Rivers. In the Adriatic Sea catchments area in the southern part of the country, where the geology is primarily karst, groundwater is mostly found in wells of the basins of the Cetina, Neretva, and Trebisnjica Rivers.<sup>26</sup>

Karst aquifers are very fragile in terms of pollution impacts. Their vulnerability depends on several features within the strong hydrology–hydrogeology interplay, with shallow soils and scarce vegetation. The karstic nature of the geology contributes to ground water pollution, as well as the pollution of surface waters. Polluted surface water infiltrates into the ground and the uncontrolled dumping of solid waste, which mixes with rainwater, also contributes to ground water pollution.

Monitoring of groundwater quality in Bosnia and Herzegovina is limited. The quality of groundwater is monitored only in areas where water is abstracted for public water supply. This means that the quality of groundwater resources is also only assessed based on the data on groundwater quality used for public water supply<sup>27</sup>.

## Flora and Fauna

Due to its specific geographical position, Bosnia and Herzegovina is one of the richest countries in Europe in terms of biodiversity. It is located at the crossroads of several biogeographical regions and therefore has specific environmental, climatic and geomorphological conditions. The entire country hosts 252 ecosystems and unique biotopes that are important from both a European and global conservation perspective.<sup>28</sup>

## Terrestrial

Land use is comprised of agricultural land (42.2%), arable land (19.7%), permanent crops (2%), permanent pasture (20.5%), forest (42.8%) and other (15%) (2011 est.).

Bosnia and Herzegovina has the highest proportion of forests and the largest variety of forest species in the Western Balkans. Approximately 20% is privately owned and 80% is state-owned. Most forest areas are in the central, eastern and western parts of Bosnia. B&H forests can be subdivided into three ecoregions: the Pannonian mixed forests, Dinaric Mountains mixed forests and Illyrian deciduous forests. Of the 2,185,000 hectares of Bosnia and Herzegovina that is forested, 0.1% or roughly 2,000 hectares is classified as primary forest, the most biodiverse form of forest. Between 1990 and 2000, Bosnia and Herzegovina lost an average of 2,500 hectares of forest per year. This amounts to an average annual deforestation rate of 0.11%. Between 2000 and 2005, the rate of forest change decreased by 100.0% to 0.00% per annum. In total, between 1990 and 2005, Bosnia and Herzegovina lost 1.1% of its forest cover, or around 25,000 hectares. Measuring the total rate of habitat conversion (defined as change in forest area plus

<sup>26</sup> <http://web.worldbank.org/archive/website00983A/WEB/OTHER/BEA9848F.HTM?Opendocument&Start=1&Count=5> accessed 3/11/19

<sup>27</sup> United Nations Economic Commission for Europe (2018) Bosnia and Herzegovina Environmental Performance Reviews, Third Review

<sup>28</sup> ibid





change in woodland area minus net plantation expansion) for the 1990-2005 interval, Bosnia and Herzegovina lost 4.4% of its forest and woodland habitat. Northern Bosnia (Posavina) contains very fertile agricultural land along the River Sava and the corresponding area is heavily farmed. This farmland is a part of the Pannonian Plain stretching into neighbouring Croatia and Serbia.

### Aquatic

For freshwater biodiversity, the Balkan region is the most important hotspot for both molluscs and fishes in Europe<sup>29</sup>. For example, the Neretva basin and the Tara/Upper Drina system are considered

Bosnia and Herzegovina has a rich ichthyofauna. About 140 (sub) species of fish, from 14 orders and 26 families live on a permanent or occasional basis in its inland waters. Some of them are endemic species. A number of endangered fish potentially occur in the project rivers (Table 4).

**Table 4 Endangered Species that potentially occur within the project river systems<sup>30</sup>**

Species	River system known from
<i>Knipowitchia croatia</i>	Lower Neretva
<i>K. radovic</i>	One tributary (Norin River) of lower Neretva
<i>Gymnocephalus batoni</i>	Sava River
<i>G. schraetser</i>	Sava River
<i>Zingel streber</i>	Sava, Una and Kupa Rivers
<i>Z. zingel</i>	Sava, Una, Bosna and Drina Rivers
<i>Eudontomyzon vladkovi</i>	Sava and Una Rivers
<i>Hucho hutchi</i>	Una, Sana, Bosna, Drina and Vrbas Rivers
<i>Salmo marmoratus</i>	Neretva basin
<i>Salmo obtusirostris</i>	Neretva basin
<i>Umbra krameri</i>	Sava River
<i>Acipenser ruthenus</i>	Sava and Drina Rivers
<i>Anguilla anguilla</i>	Neretva River
<i>Cobitis elongata</i>	Kolpa, Una and Sava Rivers
<i>C. narentana</i>	Lower Neretva basin, Tresnica River, Hutova Blato wetlands
<i>Aspius aspius</i>	Sava River
<i>Chondrostoma knerii</i>	Lower reaches Neretva basin, Buna and Krupa Rivers and Hutova Blato wetlands
<i>Delminchthys ghetaldii</i>	Popovo, Daba and Fatnica karst fields, Buna and Trebisnjica Rivers and Kasindolka stream
<i>Pelecus cultratus</i>	Sava River
<i>Rutilus virgo</i>	Sava, Sana, Ljubljana, Mirna, Krka, Kolpa, Savajna, Sotla, Una, Drina, Bosna and Vrbas Rivers
<i>Squalias svallize</i>	Neretva River

About 15 fish non-native species have established themselves in Bosnian waters from Eurasian and American waters including: *Ctenopharyngodon idella* (Valenciennes), *Oncorhynchus mykiss* (Walbaum) and *Salvelinus fontinalis* (Mitchill).<sup>31</sup>

<sup>29</sup> Wiss, 2 et al. (2018). Endangered Fish Species in Balkan Rivers: their distributions and threats from Hydropower Development. Riverwatch and EuroNatur, 162 pp.

<sup>30</sup> *ibid*

<sup>31</sup> Muhamedagic, S. Gjoen, HM. and Vegra, M. Salmonids of the Neretva river basin - present state and suggested sustainable selection programme to protect and strengthen salmonid populations



### Impacts of Hydropower Schemes

As indicated in Section 3.3, B&H has HPP schemes on many of its major rivers. HPPs can have a range of impacts on aquatic flora and fauna, depending upon the type of facility ie storage, run-of-river, diversion run-of river, or pump-storage. Some of the key potential impacts on fish biodiversity are summarised by Weiss et al 2018<sup>32</sup>:

- hydropеaking – release of water to meet peak demand, has pervasive impacts on downstream environments for distances of up to hundreds of kilometers
- hydro-filibration - short-term storage and varied release in run-of-river dams (like hydropеaking, but generally at a smaller scale).
- barriers to fish passage due to height of dam walls
- reduced or lack of flow below dams, which is insufficient as environmental flow
- diversion of water from river system (which may exceed required environmental flows)
- interruption of sediment transport (including flushing of reservoir or maintenance)
- altered groundwater levels
- promotion of invasive species
- physical changes to riverbed and banks.

### Protected areas

Total size of protected area of Bosnia and Herzegovina covers approximately 2.07 percent of the national territory (

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<sup>32</sup> Weiss S, Apostolou A, Đug S, Marčić Z, Mušović M, Oikonomou A, Shumka S, Škrijelj R, Simonović P, Vesnić A, Zabrc D. (2018). Endangered Fish Species in Balkan Rivers: their distributions and threats from hydropower development. Riverwatch & EuroNatur, 62 pp.



Table 5).



Table 5 Overview of the existing protected areas in Bosnia and Herzegovina, as at July 2017<sup>33</sup>

Entity	Location	Year	category	Category	Area (ha)
Federation of Bosnia and Herzegovina	Una	2008	II	National park	19 800.0
	Blidinje	1995	V	Protected landscape	35 800.0
	Protected Landscape Bentbaša	2017	V	Protected landscape	160.9
	Hutovo Blato	1995	V	Protected landscape – Ramsar Site	7 411.0
	Skakavac waterfall	2002	III	Natural monument	1 430.7
	Lake Prokoško	2005	III	Natural monument	2 225.0
	Vrelo Bosne – spring	2010	III	Natural monument	603.0
	Tajan Park	2009	III	Natural monument	3 510.0
	Bijambare	2003	V	Protected landscape	497.0
	Konjuh	2009	V	Protected landscape	8 016.6
	Trebević	2014	V	Protected landscape	400.2
	Vjetrenica cave*	1950	V*	Category not recognized in the new Law on Nature Protection	4 770.0
Republika Srpska	Lom Primeval Forest	2012	Ia	Strict nature reserve	297.8
	Janj Primeval Forest	1956	Ia	Strict nature reserve	295.0
	Sutjeska	1962	II	National park	16 052.3
	Kozara	1967	II	National park	3 907.5
	Ljubačevo cave	2008	III	Natural monument	45.5
	Žuta Bukva	2012	III	Natural monument	0.5
	Orlovača cave	n/a	III	Natural monument	27.0
	Rastuša cave	n/a	III	Natural monument	11.4
	Ledana pit	n/a	III	Natural monument	28.3
	Vagan cave	2013	III	Natural monument	12.0
	Area for resource management			Protected area with sustainable use	
	“University City”	2012	VI	of natural resources	27.4
	Pavlova cave	2013	III	Natural monument	13.4
	Đatlo Cave	2013	III	Natural monument	43.4
	Velika pećina (cave)	2015	III	Natural monument	820.9
	Slatina Forest Park	2016	VI	Protected area with sustainable use	
				of natural resources	35.7
	Girska cave	2015	III	Natural monument	25.4
	Pećina pod lipom (cave)	2015	III	Natural monument	6.1
	Ledenjača cave	2015	III	Natural monument	7.4

#### Ramsar wetlands

Bosnia and Herzegovina currently has three sites designated as Wetlands of International Importance (Ramsar Sites) (Figure 9)., with a surface area of 56,779 hectares

<sup>33</sup> [https://www.unece.org/fileadmin/DAM/env/epr/epr\\_studies/ECE.CEP.184.Eng.pdf](https://www.unece.org/fileadmin/DAM/env/epr/epr_studies/ECE.CEP.184.Eng.pdf)

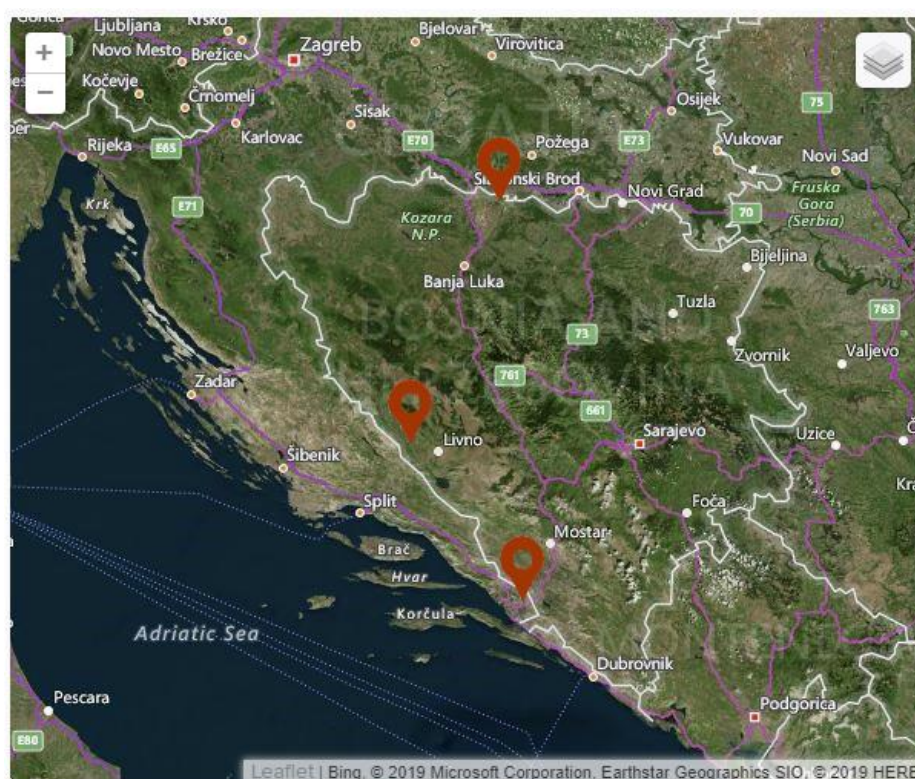


Figure 9 Location of Ramsar wetlands in B&H<sup>34</sup>

- Bardaca Wetland (Bardaca-mocvarni kompleks) Site number: 1,658. 02/02/07; Republic of Srpska Entity; 3,500 ha; 45°06'N 017°27'E. Important Bird Area. Situated in the floodplain of the Sava River near the border with Croatia, about half of the Ramsar site comprises fishponds constructed since the early 20th century and further enlarged in the 1960s for irrigation purposes. The ponds, floodplain forest, meadow and swamp areas support a range of endangered species and make an important nesting and stopover site for birds. There is a rich fish fauna (e.g., *Gymnocephalus schraetzer*, *Zingel streber*) and a range of amphibians such as *Salamandra salamandra*, *rana dalmatina*, and the pond tortoise *Emys orbicularis*. The hydrological regime has been interrupted by the construction of channels, pump stations, and damming of nearby streams, but presently pressure comes from permanent, intensive agricultural practices such as intensive pasturing and unwise use of fertilizers and pesticides. Aquaculture and fish production remain a primary economic pursuit. With assistance from the Ramsar Small Grants Fund, a management plan is currently under development. Ramsar site no. 1658. Most recent RIS information: 2007.
- Hutovo Blato Site number: 1,105 | Country: Bosnia and Herzegovina | Administrative region: Federation of Bosnia and Herzegovina Area: 7,824 ha | Coordinates: 43°03'06"N 17°47'12"E | Designation dates: 24-09-2001 Located near the lower reaches of the River Neretva, the Site comprises swamps, lakes, wet meadows and riverine forests. These provide favorable conditions for many wetland species, particularly of birds and fish, several of which are internationally threatened. Since 1988, the Site has been listed as an Important Bird Area, highlighting the importance of these habitats to migratory and resident species such as the European turtle dove and the common pochard. 63% of

<sup>34</sup> <https://www.ramsar.org/wetland/bosnia-and-herzegovina> downloaded 27/9/19





the fish species found on the site are indigenous, making it a very valuable hotspot for biological diversity. Human activities such as fishing and hunting, diversion of water to power plants, agricultural intensification, urbanization and growing tourism pose potential threats. Changes in the local climate also threaten the stability of the ecosystem, having caused an increased rate of habitat alteration in recent years.

The proposed Krupa River site is adjacent to the Hutovo Blato Ramsar wetland on its downstream margin (Figure 10). The proposed works would be undertaken on the outside of the existing levee in the area that is clearly visible as farmland (Figure 11 – the blue line shows the approximate extent of works).



Figure 10 Location of project site relative to Hutovo Blato wetland

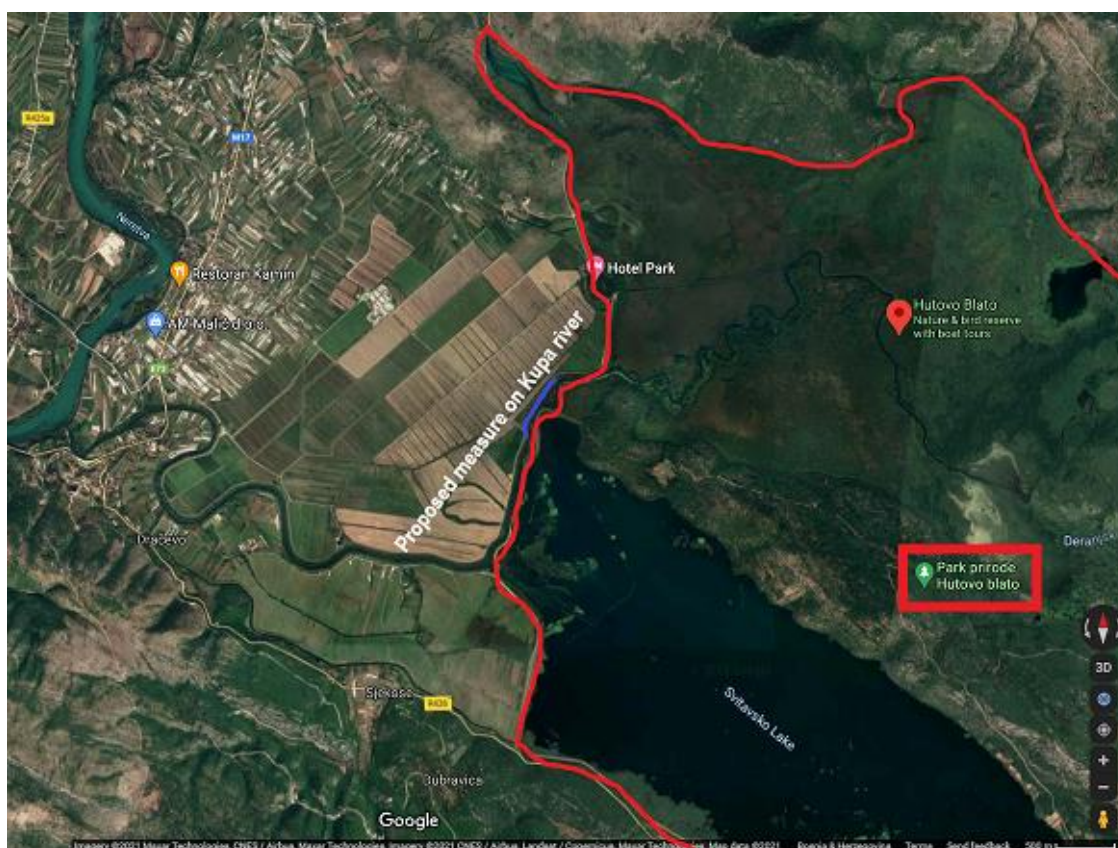


Figure 11 Relationship between Hutovo Blato wetland boundary and proposed Krupa River site

- Livanjsko Polje Site number: 1,786 | Country: Bosnia and Herzegovina | Administrative region: Hercegbosanska Zupanija Area: 45,868 ha | Coordinates: 43°51'53"N 16°49'30"E | Designation dates: 11-04-2008 Livanjsko Polje (Livno karst field). 11/04/08; Hercegbosanska canton; 45,868 ha; 43°53'N 016°47'E. The largest karst depression in the Dinaric karst and perhaps the largest periodically flooded karst field in the world. The site comprises seasonally flooded agricultural land and alluvial forest, seasonal marshes and pools, permanent streams, karst springs and sinkholes, and the largest peatland in the Balkans. Together with the Sava wetlands, it is the most important wintering, migration, and breeding site for waterbirds and raptors in the country and a key site of the Central European Flyway. The polje is important for the identity of the local community of Livno, well-known for its traditional cheeses, and for a wide range of recreational pursuits. Threats include water extraction for energy production, a planned coal-fired thermoelectric plant, and unsustainable peat excavation. Ramsar site no. 1786. Most recent RIS information: 2008.

#### Invasive Species:

The International Union for Conservation of Nature, (IUCN) describes an Introduced/ Alien and Invasive alien species as follows:

- An Introduced/ Alien species means a species, subspecies, or lower taxon occurring outside of its natural range (past or present) and dispersal potential (i.e. outside the range it occupies naturally or could not occupy without direct or indirect introduction or care by humans) and includes any part, gametes or propagule of such species that might survive and subsequently reproduce.



- An Invasive alien species means an alien species which becomes established in natural or semi-natural ecosystems or habitat, is an agent of change, and threatens native biological diversity.

The Global Register of Introduced and Invasive Species (GRIIS)<sup>35</sup> lists 312 records. Among species which got out of human control, in B&H the most common are<sup>36</sup>:

- *Asclepias siriaca*
- *Helianthus tuberosus*
- *Solidago gigantea*
- *Tagetes minuta*
- *Amorpha fruticosa*
- *Robinia pseudacacia*,
- *Phytolaca americana*,
- *Impatiens glandulifera*.
- Within most invasive are:
- *Ambrosia artemisifolia*
- *Bidens bipinnata*
- *B. frondosus*
- *B. subalternus*
- *Echinocystis lobata* (invade habitats of moist and flooded woods, then rural and urban type).

Alien animal species of aquatic ecosystems are the most frequently fish species that came into free water from fish farms or occurred spontaneously from adjacent rivers and lakes. Gudgeon *Gobio gobio* is one of the most invasive fish species in the country.

The proposed activities are unlikely to result in introduction of invasive species as materials will generally be sourced locally and it is expected that contractors are also likely to be local and so machinery is unlikely to be brought from other areas. None the less, the ESMF outlines some precautions to minimise the risk of invasive species.

### Economic Contribution of Ecosystems

Overall GDP in B&H in 2020 was 34 255 000 000 BAM (approximately USD18.5 billion) where the contribution from agriculture, forestry, and fishing totalled up to 2,084,238 000 BAM or 6%. Whilst electricity production and supply generated up to 1,348,603,000.00 or 3.94% of GDP.

These key economic activities will benefit through the enhancement of land, infrastructure and ecological protection that the project will provide.

Of the overall GDP approx. 65% can be attributed to the of catchments for Bosna, Una and Sana, Neretva and Trebisnjica rivers.

### Air Quality

In Bosnia and Herzegovina, a network of stations for air quality monitoring is operated on the entity level, on the cantonal level, by public health institutes and by companies. The air monitoring system has been improved since

<sup>35</sup> <https://www.gbif.org/dataset/e8508e67-3e63-4a77-94b1-47c3fb1d07b7#description>

<sup>36</sup> Bosnia and Herzegovina Fourth Report to the UN Convention on Biological 2010 Biodiversity Targets National Assessments. <https://www.cbd.int/doc/world/ba/ba-nr-04-en.pdf>





2010 but is not sufficient for a well-functioning countrywide air monitoring regime. The network covers mainly urban areas and rural air quality is hardly measured. In general, measurements are performed according to EU standards.<sup>37</sup>

The website <http://www.hidrometeo.ba> provides online data for a number of monitoring stations and substances throughout Bosnia and Herzegovina. The website <http://monitoringzrakatk.info> provides data for stations in Tuzla Canton.

There is a historical problem with ambient air quality in several urban areas of Bosnia and Herzegovina<sup>38</sup>.

Industrial air emissions, combined with the air emissions from the growing number of vehicles and from domestic heating using firewood and lignite, create severe air pollution in industrial and urban areas, which causes serious nuisance and health problems. During less favourable meteorological conditions, which often occur during winter, high concentrations of substances such as SO<sub>2</sub> and particulate matter are reached in some urban areas that are situated in valleys, such as Tuzla, Zenica and Sarajevo.

Transboundary air pollution also occurs with the high emissions of SO<sub>2</sub> from Thermal Power Plants and the oil refinery at the Bosnian/Croatian border. Advanced abatement techniques are not installed that would attain better and healthier air quality on a sustainable basis. Measures to prevent air emissions from industry are sometimes included in environmental permits, but in many cases, they are not (yet) implemented.

Due to the high industrial emissions, combined with traffic exhaust and, during the winter months, domestic heating with coal and wood, high concentrations of air-polluting substances are measured that often exceed the WHO Air Quality Guidelines and the less-stringent EU Air Quality Standards, especially when stagnant meteorological conditions occur during colder periods.

Sarajevo is prone to heavy fog in winter that converts into smog when mixed with high pollution levels. Combined with weak wind or a stable anticyclone, pollutants persist in the city's air for a prolonged period, causing peaks in the particulate matter (PM) concentrations, posing significant health risks to the residents. Major sources of pollutants' emissions in Sarajevo are residential heating, traffic and some point sources such as industrial plants.

In the industrial city of Tuzla the values of the PM<sub>10</sub> are regularly above the Federation of Bosnia and Herzegovina legislation limits, with peaks at over 300 µg/m<sup>3</sup>. According to the WHO's database of annual air pollution readings (2017), Tuzla was the second most polluted city in Europe after Tetovo.

The two largest polluters (Kakanj's thermal power plant and ArcelorMittal steel plant) in the Zenica area emit an annual 90,000 tons of SO<sub>2</sub>, which accounts for over 20% of the total SO<sub>2</sub> emissions in Bosnia and Herzegovina. The emission sources in the Zenica - Dobož Canton participate with 72% into the total emission of PM particles from the Federation of Bosnia and Herzegovina.

In Republic Srpska, according to official statistics, number of daily exceedances in 2015 of the PM<sub>10</sub> limit value registered in Brod are 142, Ugljevik 26, Gacko 61 and Banja Luka - Center 67.

In rural areas, air pollution is mostly below dangerous levels, with the exception of areas in the vicinity of cities such as Zenica, Tuzla, Kakanj, Lukavac, Ugljevik and Brod.

### **Ambient Noise**

No data on ambient noise are available in Bosnia and Herzegovina, since monitoring of noise is not carried out.<sup>39</sup>

<sup>37</sup> United Nations Economic Commission for Europe (2018) Bosnia and Herzegovina Environmental Performance Reviews, Third Review

<sup>38</sup> : <https://www.unicef.org/bih/en/reports/air-quality-bosnia-and-herzegovina>

<sup>39</sup> United Nations Economic Commission for Europe (2018) Bosnia and Herzegovina Environmental Performance Reviews, Third Review



Proposed project sites are a mix of rural and urban areas and the noise environment reflects the surrounding land uses.

## **Socio-economic**

### **Land Use**

Total land area can be divided into three different types of land use: *agricultural land*, *forest*, and *other*. *Agricultural land* is further divided into *arable land*- land cultivated for crops are replanted after each harvest, *permanent crops* - land cultivated for crops that are not replanted after each harvest, and includes land under flowering shrubs, fruit trees, nut trees, and vines, and *permanent pastures* and meadows ie land used for at least five years or more to grow herbaceous forage, either cultivated or growing naturally; *forest* area is land spanning more than 0.5 hectare with trees higher than five meters and a canopy cover of more than 10% to include windbreaks, shelterbelts, and corridors of trees greater than 0.5 hectare and at least 20 m wide; land classified as *other* includes built-up areas, roads and other transportation features, barren land, or wasteland<sup>40</sup>.

- agricultural land: 42.2% (2011 est.)
- arable land: 19.7% (2011 est.) / permanent crops: 2% (2011 est.) / permanent pasture: 20.5% (2011 est.)
- forest: 42.8% (2011 est.)
- other: 15% (2011 est.)

### **Land Tenure**

Historically, the country had two different registries for the same piece of land – a cadastre registry describing the parcel of land, and a land registry detailing the rights of that parcel. The entities are now using updated geospatial information for evidence-based decision-making around land tenure governance. The IT systems also generate gender disaggregated reports, providing information on how many women are landowners to raise awareness of the benefits of improving gender equality in property ownership and control. Additional funding has been granted to scale up this work in the country's rural areas, which will facilitate the process of land consolidation.

In addition to ownership rights, there are also:

- construction rights
- leases
- charges securing financial obligations
- mining rights
- easements, and
- concessions.

It should be noted that in the Federation of Bosnia and Herzegovina the rights to use and to dispose of real estate exist as a result of the previous regime, when state ownership prevented individuals or legal entities from owning the real estate that they occupied and used. Under current regulations, these rights to use and dispose of real estate can be converted into ownership, but this can be a slow process.

The transfer of property is generally governed by the Rights in Rem Act in the Federation of Bosnia and Herzegovina (Official Gazette of F B&H no 66/13 and 100/13) and Rights in Rem Act in the Republic Srpska (Official Gazette of RS 124/08 and 58/09).

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<sup>40</sup> [https://www.indexmundi.com/bosnia\\_and\\_herzegovina/land\\_use.html](https://www.indexmundi.com/bosnia_and_herzegovina/land_use.html)



Sites for physical interventions have been selected only where land tenure rests with the government, i.e. where the land is public land.

**Population**

The total population is 3.5 million, with 47.9% of the population living in urban areas. Life expectancy is 77.1 years. Bosnia and Herzegovina’s HDI value for 2017 is 0.768— which puts it in the high human development category— positioning it at 77 out of 189 countries and territories.

The percentage of the population living below the poverty line is 16.9% (2015 est.).

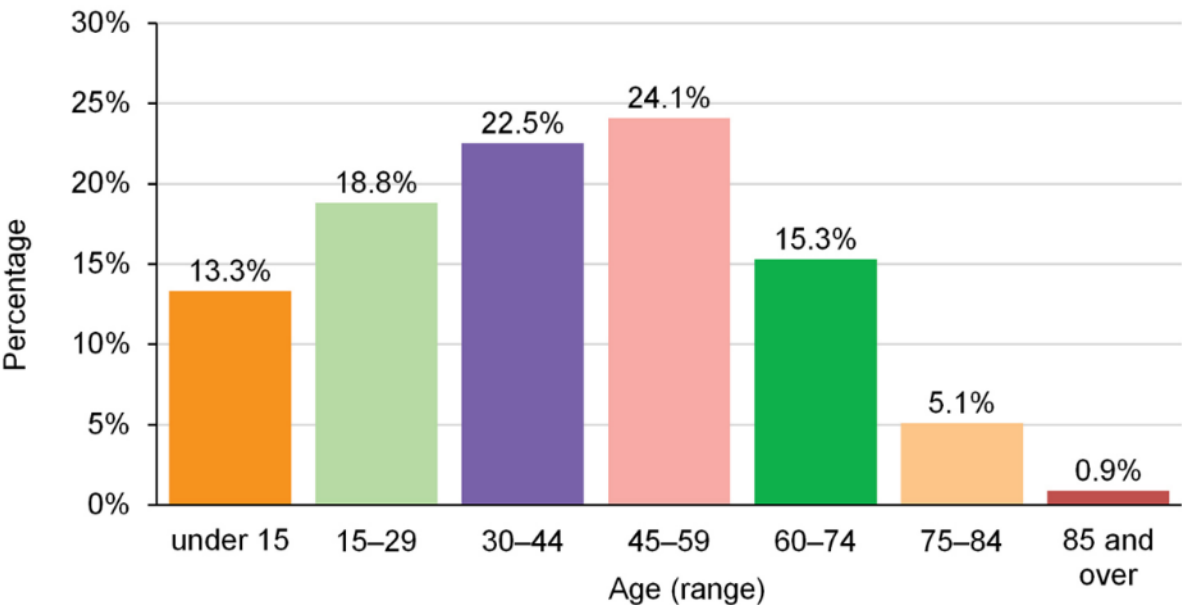


Table 6 Bosnia and Herzegovina age breakdown (2017)<sup>41</sup>

**Internally Displaced Persons**

As a result of the war, B&H still has some internally displaced persons (IDPs). Rehousing of many IDPs has occurred, while others still remain in ‘collective centres’. There are no collective centres near any of the sites.

According to UNHCRs report from 2019, there are 96,421 IDPs, 47,000 returnees and 1,354 refugees, which makes total of 144,775 people. There is no official data on IDPs in municipalities, but based on figures above, total B&H population and number of people living in flood affected areas, it can be estimated that at least 38,000 IDPs, refugees or returnees are populated in flood affected areas. These people are usually situated on the cheapest, lowest quality/value land, very often in near vicinity of rivers and exposed to floods, landslides and other natural disasters.

There are no indigenous peoples, ethnic groups and/or internally displaced peoples known to inhabit the specific locations of the interventions/works, i.e., there will be no relocation required. However, a rehoused IDP community

<sup>41</sup> <https://www.britannica.com/place/Bosnia-and-Herzegovina/People#/media/1/700826/209756>



(ie IDPs that have been resettled) does occur near at least one of the proposed interventions and will be direct beneficiaries of the project.

### **Political / Governance**

The internationally brokered Dayton Accords — the peace agreement negotiated in Dayton, Ohio, U.S., in November 1995 — established Bosnia and Herzegovina as a state composed of two highly autonomous entities, the Republic Srpska (Bosnian Serb Republic) and the Federation of Bosnia and Herzegovina. The latter is a decentralized federation of Croats and Bosniaks. Each entity has its own legislature and president. The central institutions of Bosnia and Herzegovina include a directly elected tripartite presidency, which rotates every eight months between one Bosniak, one Serb, and one Croat member. The presidency, as the head of state, appoints a multi-ethnic Council of Ministers. The chairman of the council, who is appointed by the presidency and approved by the national House of Representatives, serves as the head of government. The parliament is bicameral. Members are directly elected to the 42-seat lower house (House of Representatives), in which 28 seats are reserved for the Federation and 14 for the Republic Srpska. Members of the upper house (the House of Peoples, with five members from each ethnic group) are chosen by the entity legislatures.

### **Employment, Labor and Working Conditions**

High unemployment remains the most serious macroeconomic problem 20.5%<sup>2</sup> (2017 est.) and 25.4% (2016 est.). Agriculture employs 19.1% of the workforce, while industry employs 32.2% and services 48.7% (2017 est.).

The country has one of the lowest female employment rates in the Balkans (around 30%). The share of informal employment in total employment is relatively high (30%).<sup>42</sup>

Labour rights in Bosnia and Herzegovina are regulated by laws at the level of the entities and the Brčko District. However, several studies have identified numerous problems with the application of labour laws. The most widespread violations of labour rights include: non-payment or delayed payment of salaries, non-payment of taxes and contributions, non-payment of salary compensation for maternity and pregnancy benefits, failure to register workers for mandatory health and pension insurance, not providing annual leave for workers, working hours that exceed those stipulated by law and in employment contracts, overtime work and undeclared work.<sup>43</sup>

### **Gender**

According to the UNDP Gender Inequality Index, measuring inequality in reproductive health, empowerment and labour market, in 2018 Bosnia and Herzegovina has a GII of 0.166 (HDR 2018) and ranks 37 out of 189 countries assessed. The GDI value (2018) 0.924 is with a ranking of Group 4.<sup>44</sup>

In Bosnia and Herzegovina, 19.3 percent of parliamentary seats are held by women, and 71.7 percent of adult women have reached at least a secondary level of education compared to 88.7 percent of their male counterparts. For every 100,000 live births, 11 women die from pregnancy related causes; and the adolescent birth rate is 10.0 births per 1,000 women of ages 15-19. Female participation in the labour market is 35.2 percent compared to 58.7 for men.

Women and men have equal legal rights to property ownership, management, and use, as well as equal legal status in relation to access to financing and services<sup>45</sup>. However, local traditions and customs persist in giving preference to men. Nationally, men account for over 70 percent of landownership and own 74 percent of dwellings. Women own 15 percent of all homes in 76 percent of female-headed households. Ten percent of dwellings has joint

<sup>42</sup> [https://www.ilo.org/budapest/countries-covered/bosnia-herzegovina/WCMS\\_471903/lang--en/index.htm](https://www.ilo.org/budapest/countries-covered/bosnia-herzegovina/WCMS_471903/lang--en/index.htm)

<sup>43</sup> [https://www.wfd.org/wp-content/uploads/2019/09/Study\\_The-rights-of-women-employed-in-retail-commerce-in-BiH.pdf](https://www.wfd.org/wp-content/uploads/2019/09/Study_The-rights-of-women-employed-in-retail-commerce-in-BiH.pdf)

<sup>44</sup> [http://hdr.undp.org/sites/default/files/2018\\_human\\_development\\_statistical\\_update.pdf](http://hdr.undp.org/sites/default/files/2018_human_development_statistical_update.pdf)

<sup>45</sup> WB, Women, Business and the Law, 2016: p. 94



ownership<sup>46</sup>. Women hold joint ownership in 11 percent of male-headed households but only five percent of men have joint ownership in female-headed households.

The level of financial inclusion in B&H is similar to the Europe and Eurasia (E&E) average but lags considerably behind upper-middle income countries.

In many communities, NGOs were the first to assist in the protection and implementation of women's human rights and today are active in communities in empowering women at the local level. Their activities include providing free legal assistance in case of violation of women's rights, provide protection to victims of domestic violence and human trafficking, support women through programs of credit and economic literacy, employment and self-employment, as well as activities aimed at empowering rural women, Roma women's organizations etc.

The Gender Analysis and Gender Action Plan prepared for the project contains further details on gender related issues relevant to the project.

**GBV and SEAH**

There is a very high incidence of gender-based violence in B&H. According to a 2013 survey of 3,300 B&H families (conducted by the B&H Gender Equality Agency), every second woman had experienced some form of gender-based violence during her adult life (after the age of 15).<sup>47</sup>

The lesbian, gay, bisexual, transgender and intersex (LGBTI) community in B&H is for the most part absent from the public sphere due to pervading hostile attitudes among the majority of the population, fear for physical safety, and discrimination by family, friends, and co-workers.

B&H ratified the Council of Europe Convention against Violence against Women and Domestic Violence in 2013 and the entities have their own strategic documents. In the RS, acts of domestic violence can be prosecuted as a misdemeanour or felony, and domestic violence is recognized in the Misdemeanour Code, and in the Criminal Code of the RS. The RS established an entity council for fighting domestic violence. In the FB&H, the acts are processed in accordance with the Criminal Code of FB&H. In this criminal code, each canton has a referral mechanism for responding to domestic violence.

Bosnia and Herzegovina has yet to implement coordination and cooperation between government institutions at all levels in the context of preventing and combating violence against women, as well as to harmonize laws and entity public policies in this area, which leads directly to the inability to ensure the equal status and protection of rights of women who survived violence and their access to justice. Safe houses run by NGOs have neither the same legal status in both entities, nor a secured system support, which directly threatens the existing limited services to help women in the period of acute violence.

**Archaeology and Cultural Heritage**

Bosnia and Herzegovina has rich cultural heritage, influenced by its significant ethno-religious diversity. However, massive destruction of cultural and religious heritage, particularly the Ottoman and Islamic inheritance, during the 1992-1995 Bosnian War was widespread in the country.

There are three World Heritage sites in Bosnia and Herzegovina ( Table 7) and a further nine on the tentative list.

**Table 7 World heritage sites in Bosnia and Herzegovina**

<sup>46</sup> WB 2015: p. 79  
<sup>47</sup> <https://www.usaid.gov/bosnia/fact-sheets/fact-sheet-combating-gender-based-violence-bosnia-and-herzegovina>



World Heritage Site	Location	Date listed	Commentary
Old Bridge Area of the Old City of Mostar	Mostar	2005	This site encompasses the Old Bridge and the surrounding area. The Ottoman bridge, which crosses the Neretva river, was commissioned by Suleiman the Magnificent and completed in 1566/67. In 1993, during the Bosnian War, it was deliberately shelled and destroyed by the Croatian Defense Council. After the war, the bridge was rebuilt using traditional construction methods and local materials, and reopened in 2004
Mehmed Paša Sokolović Bridge	Višegrad	2007	The Mehmed Paša Sokolović Bridge, which crosses the Drina river, was completed in 1577 by the Ottoman court architect Mimar Sinan on the orders of the Grand Vizier Mehmed Paša Sokolović
Stećci Medieval Tombstones Graveyards*	20 sites	2016	Stećci (sing. stećak) are the monolith medieval tombstones found in modern-day Bosnia and Herzegovina, as well as parts of Croatia, Serbia, and Montenegro. They first appeared in the 12th century and reached their peak in the 14th and 15th centuries. There are 20 sites in Bosnia and Herzegovina, mostly in the southeastern part of the country. The largest cluster is located in Radimlja, in the Stolac municipality.

There are no known heritage values at any of the sites.

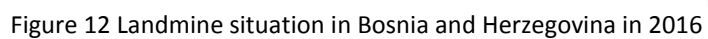
### Unexploded Ordinance

Bosnia and Herzegovina (B&H) is one of the most mine-contaminated countries in the world and remains the most mine-affected country in Europe. The presence of mines and unexploded ordnance (UXO), even though reduced each year, remains a major problem for personal security of residents, hinders socio-economic development and prevents steady and continuous post-conflict reconstruction.

By 2020, the mine suspected area in B&H amounts to 965 square kilometres, representing over 1.97 % of the country's territory. According to the most current Bosnia and Herzegovina Mine Action Centre (BHMACE) estimations, there are still around 79,000 mines and explosive remnants of war (unexploded ordnance, cluster munitions) remaining in the ground throughout Bosnia and Herzegovina and over 500,000 residents living in approximately 1,400 mine/ERW affected communities. Since 1996, mine and UXO accidents severed the lives of 1,766 local residents, turning them into mine/ERW victims (617 persons were fatally injured-died).<sup>48</sup>

<sup>48</sup> <https://www.itf.si/activities/southeast-europe/bosnia-and-herzegovina#>







V. ENVIRONMENTAL AND SOCIAL RISK ASSESSMENT

UNDP Social and Environmental Screening

As this project is supported by UNDP in its role as a GCF Accredited Entity, the project has been screened against UNDP’s Social and Environmental Standards. The Social and Environmental Screening Template was used to screen the project (Appendix 1). Based on the risks and their pre-mitigation risk level identified in the screening exercise, the project has been deemed to be of moderate risk (Category B).

Impact Risk Assessment Methodology

An impact risk assessment was undertaken using the UNDP risk matrix to assess the likelihood of a risk occurring (expected, very likely, moderately likely, low likelihood, not likely) and the impact of the risk (extreme, extensive, intermediate, minor, negligible). From this, a significance value was attributed to the potential impact (low, moderate, substantial and high).

Screening of the project using the UNDP screening template provides high level, whole-of-project assessment of risks. As per the UNDP SES, risk rating is done on pre-mitigation state. Overall project risk is dictated by the highest level of risk determined when assessing activity pre-mitigation risk levels. The screening, contained in SESP, indicated that there are moderate risks and therefore the project must be categorised as of Moderate risk overall.

The project has also been screened for Sexual Exploitation, Abuse and Harassment (SEAH). SEAH risks have been included in the SESP (Appendix 1). The project was deemed to have an overall medium level of SEAH risk.

Table 11 provides a risk assessment by activity to provide more detail than the SESP to assist project personnel in anticipating and mitigating risks when implementing the project. Note, similar risks can occur during multiple activities. To provide an indication as to the extent to which a risk might be managed, post-mitigation risk assessment has also been undertaken. The results of the pre- and post-mitigation assessments are presented in Table 11.

When undertaking the risk assessment, all activities were assessed, including, hard/soft infrastructure and livelihood interventions. Specific measures for each matter e.g., water, erosion, noise etc are discussed along mitigation measures later in this ESAR.

As discussed in Section 1, the ESAR has been prepared using publicly available information (legislation, reports, papers, maps, images, internet searches etc), project reference documents (e.g. Concept Note, Feasibility Study, Gender Analysis and Action Plan etc), consultation with stakeholders such as government, NGOs and project development team members, and field-visits by a safeguards specialist to representative sites. The risk assessment and proposed mitigation measures draws on the available information and the experience of team members with similar projects.

Score	Rating
5	Expected
4	Very Likely
3	Moderately likely
2	Low Likelihood
1	Not likely

Table 8 Rating of Likelihood of Risk

Score	Rating	Definition
5	Extreme	Significant adverse impacts on human populations and/or environment. Adverse impacts high





		in magnitude and/or spatial extent (e.g. large geographic area, large number of people, transboundary impacts, cumulative impacts) and duration (e.g. long-term, permanent and/or irreversible); areas impacted include areas of high value and sensitivity (e.g. valuable ecosystems, critical habitats); adverse impacts to rights, lands, resources and territories of indigenous peoples; involve significant displacement or resettlement; generates significant quantities of greenhouse gas emissions; impacts may give rise to significant social conflict
4	Extensive	Adverse impacts on people and/or environment of medium to large magnitude, spatial extent and duration more limited than extreme (e.g. predictable, mostly temporary, reversible). The potential risk impacts of projects that may affect the human rights, lands, natural resources, territories, and traditional livelihoods of indigenous peoples are to be considered at a minimum potentially extensive.
3	Intermediate	Impacts of medium magnitude, limited in scale (site-specific) and duration (temporary), can be avoided, managed and/or mitigated with relatively uncomplicated accepted measures
2	Minor	Very limited impacts in terms of magnitude (e.g. small affected area, very low number of people affected) and duration (short), may be easily avoided, managed, mitigated
1	Negligible	Negligible or no adverse impacts on communities, individuals, and/or environment

**Table 9 Rating of Impact of Risk**



Impact	5	moderate	substantial	substantial	high	high
	4	low	moderate	substantial	substantial	high
	3	low	moderate	moderate	moderate	substantial
	2	low	low	low	moderate	moderate
	1	low	low	low	low	low
		1	2	3	4	5
	Likelihood					

Table 10 UNDP Risk matrix


**Table 11 Risk Assessment**

Project element with potential for impacts	Unmitigated Risks	Probability of Impact and Impact	Avoidance and Mitigation Measures	Probability of Impact and Impact post-mitigation
OUTPUT 1: CLIMATE-INFORMED FFEWS AND AN INCREASED GENERATION AND USE OF CLIMATE DATA REDUCE VULNERABILITY TO FLOOD RELATED DISASTERS				
Activity 1.1: Upgrade and expand the coverage of the hydrometric network for enhanced monitoring of climate variables in Category I catchments and torrential streams				
Construction	Minor construction work impacts	Likelihood: 3 Impact: 2 Risk Level: Low	Construction impacts can be readily managed through implementation of ESMF.	Likelihood: 3 Impact: 1 Risk Level: low
Security of equipment	Potential for theft or vandalism of infrastructure	Likelihood: 1 Impact: 4 Risk Level: Low	Fencing and other security precautions designed into project  Community engagement to help communities understand the value to infrastructure to them to reduce vandalism and theft	Likelihood: 1 Impact: 3 Risk Level: Low
Involvement of HPPs	Perception that project is promoting HPP	Likelihood: 4 Impact: 3 Risk Level: Moderate	Project Board/PMU to ensure application of UNDP SES to all activities.  Engagement of all stakeholders to demonstrate value gained through involvement of HPPs  Implement SEP, ESMF and other safeguard plans	Likelihood: 2 Impact: 3 Risk Level: Moderate
Activity 1.2: Enhance climate-induced flood hazard, risk and vulnerability information for strategic management and sound decision making for climate induced flood management.				
Modelling and risk mapping and integration of data.	Direct impacts associated with activity are likely to be low, however some	Likelihood: 2 Impact: 3	Capacity building will be undertaken. EUFD methodology has been adopted by B&H. Models (including software), data collection approaches and scales, are specified in the	Likelihood: 1 Impact: 2



Project element with potential for impacts	Unmitigated Risks	Probability of Impact and Impact	Avoidance and Mitigation Measures	Probability of Impact and Impact post-mitigation
	<p>risks/impacts that could occur if poorly managed include:</p> <p>Lack of technical capability/capacity within agencies for modelling</p> <p>Poor stakeholder engagement may result in users not understanding/using information</p> <p>Lack of capacity and capability</p>	Risk Level: Moderate	<p>methodologies accepted by both entities (and embedded in their laws). The project to build on the 'minimum' EUFD approach and enhance the scale, level of detail and the processes that will be modelled and mapped (adding HPPs, torrents and groundwater)</p> <p>Engagement with end users during design and then testing/assessment of products with end users</p> <p>Project includes significant capacity building activities to embed long-term capacity in modelling and data management. Train the trainer to assist in knowledge transfer.</p>	Risk Level: Low
Inclusion of HPPs in flood models	Perception that project is promoting/endorsing HPPs	<p>Likelihood: 4</p> <p>Impact: 3</p> <p>Risk Level: Moderate</p>	<p>HPPs are part of the existing system and can have a significant influence on flood impacts.</p> <p>Engagement to ensure understanding that HPPs need to be integrated into flood models for effective forecasting and management.</p> <p>Develop operating rules for HPPs based on integrated modelling. Communicate role of HPPs in improving flood forecasting (data collection) and management.</p>	<p>Likelihood: 3</p> <p>Impact: 3</p> <p>Risk Level: Moderate</p>
Activity 1.3: Develop an integrated centralized and community-based flood forecasting and early warning system (FFEWS).				
Inter entity/agency cooperation	Risk of system failure if there is not appropriate cooperation between the agencies/entities.	<p>Likelihood: 3</p> <p>Impact: 3</p> <p>Risk Level: Moderate</p>	<p>Capacity building of various departments</p> <p>Engage both entities equally and where possible on common projects</p>	<p>Likelihood: 2</p> <p>Impact: 3</p> <p>Risk Level: Moderate</p>



Project element with potential for impacts	Unmitigated Risks	Probability of Impact and Impact	Avoidance and Mitigation Measures	Probability of Impact and Impact post-mitigation
			SOPs will assist in creating commonality	
Community engagement	<p>Risk that messages may be misunderstood</p> <p>Community trust of system can be lost if there are confusing messages or false alarms.</p>	<p>Likelihood: 2</p> <p>Impact: 3</p> <p>Risk Level: Moderate</p>	<p>Community-specific engagement programs.</p> <p>Advisories need to be clearly understood by recipients. Wording of messaging and modes of delivery to be relevant to community and adopt multi-level approach.</p> <p>Engagement with end users during design and then testing/assessment of products with end users prior to finalizing will reduce risk of user needs not being met. A feedback mechanism that is being built in will ensure usability of information disseminated.</p> <p>Using GIS, develop warning and evacuation maps showing evacuation routes, shelters, the locations of vulnerable people/groups, critical infrastructure, NGO/CBO offices, health facilities, and other operationally useful information, with hazards extents linked to gauge information</p> <p>Place markers and signs on buildings and other structures linked to warning threshold (alert) levels.</p> <p>Warning thresholds to be appropriate for each community.</p> <p>Ensure that system is trailed and that false alarms are minimized to ensure trust in system is maintained.</p>	<p>Likelihood: 1</p> <p>Impact: 3</p> <p>Risk Level: Low</p>



Project element with potential for impacts	Unmitigated Risks	Probability of Impact and Impact	Avoidance and Mitigation Measures	Probability of Impact and Impact post-mitigation
Activity 1.4: Develop and implement national protocols and SOPs on data generation, data management and communication for effective FFEWS and flood risk management.				
Activity is focused on data management, verification, forecasting and hazard communication	No significant impacts are anticipated to be associated with this activity. Risks include:			
	Suitability of models, calibration, and selection of appropriate triggers (level of technical capability)	Likelihood: 2 Impact:3 Risk Level: Moderate	International practices will be employed.  Suitability of models, calibration, and selection of appropriate triggers.	Likelihood: 1 Impact:3 Risk Level: Low
	Protocols once developed must be followed to be effective.  Lack of co-operation / coordination between government departments  Failure to involve private sector or get buy in e.g., from HPPs	Likelihood: 3 Impact: 3 Risk Level: Moderate	Standardized protocols etc. will assist in harmonizing departments.  Lessons learned from previous project that is being scaled up will be applied.  Early engagement of private sector, particularly power generation sector	Probability: 2 Impact: 3 Risk Level: Moderate
	Messaging inappropriate and/or vulnerable groups do not receive information	Likelihood: 2 Impact:3 Risk Level: Moderate	Implement Gender Action Plan  Multi-pronged approach to dissemination via multiple media types	Likelihood: 1 Impact: 2 Risk Level: Low
OUTPUT 2: SCALED-UP ECOSYSTEM-BASED AND NON-STRUCTURAL CLIMATE RESILIENT FLOOD RISK REDUCTION.				
Activity 2.1: Mainstream climate induced flood risk reduction into sectoral planning (agriculture, hydropower, critical infrastructure) and spatial planning.				



Project element with potential for impacts	Unmitigated Risks	Probability of Impact and Impact	Avoidance and Mitigation Measures	Probability of Impact and Impact post-mitigation
Activity is primarily about planning, legislation, and policies, building standards and capacity building	Adverse physical impacts are not expected. Potential risks are associated with lack of acceptance of policies and planning outcomes, failure to widely disseminate information and build suitable capacity.	Likelihood: 2 Impact: 3 Risk Level: Moderate	Engagement with end users during design and then testing/assessment of products with end users prior to finalizing will reduce risk of user needs not being met. A feedback mechanism that is being built in will ensure usability of information disseminated  Undertake SESA to assess potential adverse impacts of planning and policy changes.	Likelihood: 1 Impact: 2 Risk Level: Low
Activity 2.2: Implement and mainstream new ecosystem-based flood risk reduction and climate change adaptation methods.				
Construction	Construction impacts such as noise, dust, erosion, spill risks etc.  Risk of UXO disturbance by earthworks  Increased risk of SEAH associated with construction workers, training etc.	Likelihood: 4 Impact: 3 Risk Level: Moderate	These and other impacts listed for the activity 2.2 will be addressed through preliminary EIA that will consider their scale and significance, and will prescribe proper management and monitoring measures. These measures will be integrated in water permit issued for each site by Water Agency and construction permit issued by Relevant government Ministry. ESMF  Implement UXO protocols prior to earthworks  Implement SEAH Action Plan	Likelihood: 3 Impact: 2 Risk Level: Moderate
Reforestation / agroforestry	Potential erosion and sediment movement. See also additional information in UNDP's NTF on this topic in May 2023..	Likelihood: 3 Impact: 3 Risk Level: Moderate	Implementation of Guidelines for nature-friendly stabilization of the riverbed and riparian areas and riparian areas ESMF	Likelihood: 2 Impact: 2 Risk Level: Low



Project element with potential for impacts	Unmitigated Risks	Probability of Impact and Impact	Avoidance and Mitigation Measures	Probability of Impact and Impact post-mitigation
	Potential that areas reforested are utilized for timber in future.		Planning and policy changes to incentivize maintenance of vegetation for flood management.	
In-stream and riverbank vegetation management	Loss of habitat through instream vegetation removal and riverbank armoring	Likelihood: 4 Impact:3 Risk Level: Moderate	Vegetation to be removed is generally weeds. Where trees require removal, then extent will be minimized where possible.  Protection of riverbanks will seek to adopt a soft infrastructure or EbA approach e.g., uncemented stone will be favored over engineered surfaces, stabilizing vegetation will be established etc.  ESMF	Likelihood: 3 Impact:2 Risk Level: Low
Changes to floodplain use	Reconnection of floodplains could result in altered use regimes for landholders giving rise to grievances	Likelihood: 4 Impact:3 Risk Level: Moderate	Community engagement to ensure understanding of need for improved use and benefits to broader community  Undertake a Strategic Environmental and Social Assessment (SESA) to assess plan/policy changes	Likelihood: 4 Impact: 2 Risk Level: Moderate
Activity 2.3: Codify and mainstream EbA solutions into policies and regulations and promote non-structural measures among decision makers and communities.				





Project element with potential for impacts	Unmitigated Risks	Probability of Impact and Impact	Avoidance and Mitigation Measures	Probability of Impact and Impact post-mitigation
Mainstreaming / application of products	No physical impacts expected. Documents need to be appropriate for intended audience.	Likelihood: 3 Impact: 3 Risk Level: Moderate	Documents written with target audiences in mind i.e., language and technical levels appropriate for end use. Engagement with users to obtain feedback on appropriateness and usability of documents.  Capacity building of various departments.  Undertake a Strategic Environmental and Social Assessment (SESA) to assess plan/policy changes.	Likelihood: 2 Impact: 2 Risk Level: Low
	Lack of understanding or capacity to implement various policies, regulations, and concepts  Possible unintended impacts associated with changes in plans and policies.			
Activity 2.4: Review and strengthen institutional capacity and develop long-term institutional capacity development plans for climate resilient FRM.				
Training	Lack of capacity / selection of candidates  Increased risk of SEAH associated with training situations	Likelihood: 3 Impact: 3 Risk Level: Moderate	Develop capacity both vertically and horizontally within organizations to provide a depth of knowledge and staff resources  Apply Gender and SEAH Action Plans	Likelihood: 2 Impact: 2 Risk Level: Low



Project element with potential for impacts	Unmitigated Risks	Probability of Impact and Impact	Avoidance and Mitigation Measures	Probability of Impact and Impact post-mitigation
	Staff turnover and consequent loss of skills	Likelihood: 3 Impact: 3 Risk Level: Moderate	Train the Trainer, development and establishment of training curricula, and rosters of trainers, and development of mechanisms for delivering long-term capacity development to help capacity to be passed along and increase corporate capacity thus assisting in sustainability.	Likelihood: 3 Impact: 2 Risk Level: Low
OUTPUT 3: CLIMATE-PROOF FLOOD PROTECTION INVESTMENTS STRENGTHEN ADAPTIVE CAPACITY AND REDUCE EXPOSURE TO CLIMATE-INDUCED FLOODS				
Activity 3.1: Develop a country-wide investment framework for climate induced floods risk reduction and management including provisions for private sector engagement in climate risk financing and for risk transfer mechanisms.				
Engagement	Failure to engage community or public sector – poor take up of initiatives	Likelihood: 2 Impact: 3 Risk Level: Moderate	Early and ongoing engagement – implement SEP	Likelihood: 1 Impact: 2 Risk Level: Low
Activity 3.2: Formulated multi-year climate resilient municipal investment plan and gender sensitive community preparedness plan implemented in selected municipalities (10-12) in Vrbas, Una-Sana and Bosna basins.				
Community engagement	Community resistance or apathy	Likelihood: 3 Impact: 3 Risk Level: Moderate	Early engagement and involvement of community	Likelihood: 2 Impact: 2 Risk Level: Low
Gender	Existing gender inequalities in B&H	Likelihood: 3 Impact: 3 Risk Level: Moderate	Implement Gender Action Plan	Likelihood: 1 Impact: 2 Risk Level: Low



Project element with potential for impacts	Unmitigated Risks	Probability of Impact and Impact	Avoidance and Mitigation Measures	Probability of Impact and Impact post-mitigation
	Existing level of gender-based violence (GBV), risk to exacerbate GBV, including sexual exploitation, abuse, and harassment (SEAH).	Likelihood: 2 Impact:4 Risk Level: Moderate	Implement Gender Action Plan. Implement UNDP policies for protection against Harassment, Sexual Harassment, Discrimination and abuse of Authority, as well as special measures for protection from sexual exploitation and sexual abuse eg SEAH Action Plan	Likelihood: 1 Impact:3 Risk Level: Moderate
Activity 3.3: Implement climate-proof structural flood risk reduction and anti-erosion interventions in Vrbas, Una-Sana and Bosna River basins (co-financed).				
All cofinanced activities to meet UNDP SES	Failure to adhere to UNDP SES	Likelihood: 4 Impact: 3 Risk Level: Moderate	Project Board and PMU to ensure application of UNDP SES to all activities.  Implement various safeguard documents e.g., ESMF, GAP, SEP/GRM to all activities	Likelihood: 2 Impact: 3 Risk Level: Moderate
Construction impacts	Unacceptable impacts associated with construction activities e.g., noise, dust, safety, sediment and erosion	Likelihood: 3 Impact: 3 Risk Level: Moderate	Implement ESMF	Likelihood: 2 Impact:2 Risk Level: Low
	Risk of encountering Uxo during earthworks	Likelihood: 2 Impact: 4 Risk Level: Moderate	Implement ESMF, in particular UXO surveys of any areas to be excavated	Likelihood: 1 Impact: 4 Risk Level: Low
Flora and fauna	Loss of vegetation, unacceptable impacts to wildlife	Likelihood: 3 Impact:3 Risk Level: Moderate	Implement ESMF	Likelihood: 3 Impact:2 Risk Level: Low
Flooding during works	Works sites flooded during implementation and no preparations made	Likelihood: 2 Impact:4 Risk Level: Moderate	Timing of works, monitoring of upstream rainfall / river levels  Implement ESMFs	Likelihood: 2 Impact: 2 Risk Level: Low



Project element with potential for impacts	Unmitigated Risks	Probability of Impact and Impact	Avoidance and Mitigation Measures	Probability of Impact and Impact post-mitigation
Earthquake	Potential for earthquakes to damage infrastructure	Likelihood: 1 Impact:4 Risk Level: Low	Design to withstand earthquakes. SOPs to also include earthquakes. Insure for natural disasters	Likelihood: 1 Impact:3 Risk Level: Low
Operation and Maintenance	Failure to properly operate and maintain	Likelihood: 3 Impact:3 Risk Level: Moderate	Development and implementation of an O&M plan. Identification and allocation of annual O&M budget and clear authority on who is responsible.	Likelihood: 2 Impact:2 Risk Level: Low



## Direct Impacts

The activities will be undertaken in locations that are disturbed, both naturally (e.g., via flood erosion) and anthropogenic (e.g., canals). The environmental and social impacts envisaged for the project are predominantly temporary in nature and are associated with construction activities for the river works, and access to land for both river works and forestry activities. It is currently proposed that all early warning system components will be constructed on Government land.

The most significant environmental and social impacts are likely to be attributed to the implementation of the priority risk reduction interventions at the sites proposed under Activity 3.3 (Table 11).

There are a range of potential impacts associated with the works including, but not limited to, the potential erosion and sediment movement during rainfall events and as a result of dust, all of which could have impacts on water quality, noise impacts from the use of trucks and excavators, the potential leakage of chemicals and oils, and other potential impacts. The construction activities could also result in changes to people's ability to move within the locale. There is also the potential for the construction activities to generate sediment that may increase silt load through overland flow to other environments.

The vast majority of construction works involve the building of the river infrastructure. It is anticipated that most materials, particularly rock, will come from quarries near the sites. Other materials will be minimal. The proper handling of this material, and where possible, recycling and reuse of any local materials should be considered.

The proposed river works are unlikely to impact on important ecosystems and/or habitats. The rivers have been significantly impacted by both anthropogenic activities and climate induced events in the past. Some riparian vegetation will be lost at some of the sites; however, revegetation is planned as part of the works.

All construction and operation activities have the potential to cause noise nuisance. Vibration disturbance to nearby residents and sensitive habitats is likely to be caused through the use of vibrating equipment. Blasting is not required to be undertaken as part of this project. The use of machinery or introduction of noise generating facilities could have an adverse effect on the environment and residents if not appropriately managed. The detail, typical equipment sound power levels, provides advice on project supervision and gives guidance noise reduction. Potential noise sources during construction may include:

- heavy construction machinery.
- power tools and compressors.
- delivery vehicles.

Heavy machinery and haul trucks can generate high noise levels within and along the project areas and routes. All machinery and vehicles used will be restricted to 7am to 5pm.

Air quality is unlikely to be affected due to the limited exhaust emissions from construction vehicles and machinery such as plant for excavating foundations, concrete mixers, water tankers, small cranes, dumpers, forklift for the block work and fugitive emissions from aggregates, dust from exposed soils and stockpiles. Any impacts on air quality will be very localised and of short duration.

The project is very unlikely to result in any significant risk to water pollution from oil, grease and fuel spills, and other materials from vehicles working on site. Construction vehicles could affect water quality by accidents from vehicles (e.g., oils and fuel). While it is unlikely that there will be an impact as a result of a chemical, fuel and oil spill, these lubricants need to be handled with caution and importantly, where possible, should not be brought on site. In the case of a spill, every effort must be made that it does enter the riverine environment.

The project has the potential to generate quantities of waste, although the quantities are unlikely to cause an environmental impact as they will generally be small.



With respect to the installation of equipment, the main impacts associated with this activity are the installation of equipment to collect data and then the dissemination of that information in real time as needed. As such, the activity is unlikely to have any significant impact although there is the potential, albeit small to impact the environment or land during the installation of loggers.

The project will not create temporary and/or permanent habitats for mosquito breeding and/or any other pests.

### **Indirect Impacts**

There are unlikely to be any real indirect impacts associated with the project if general care and maintenance are considered. Primarily, the project will require the importation of materials and equipment to the intervention sites. Special attention should be considered in the movement of this material including the organisation of the deliveries to reduce the number of transportation movements required and moreover to reduce material remaining on site for extended periods. All material should be moved away from the rivers as soon as possible to remove the potential impacts should a storm or disaster event occur.

There are unlikely to be any adverse impacts on hydropower projects as a result of the projects. By contrast, it is likely that the interventions will have beneficial impacts by reducing the amount of sediment that would impact on any reservoirs.

### **Cumulative Impacts**

The proposed river interventions will be undertaken in four basins. There is limited potential for cumulative impacts, these being impacts on sediment movement during the construction activities. These impacts will be limited temporally. Conversely, the activities will significantly reduce on-going cumulative impacts by reducing the loss of sediment and bank erosion during large flooding events.

### **Transboundary Impacts**

Given the locations of the interventions, there is unlikely to be any direct transboundary impacts. However, the proposed interventions are likely to have indirect transboundary benefits, such as reduced sedimentation.

### **Potential Benefits**

This project will directly benefit the most vulnerable parts of the population and will have significant benefits to gender equity. Flooding and disasters in general, impact women disproportionately. In B&H there are significant gender inequalities, fuelled by traditional gender roles. The project will ensure that women are primary stakeholders and will therefore need to be involved in decisions on the types of solutions that are implemented. The project will therefore safeguard local communities and their assets from climate disasters with particular attention to women, and other vulnerable groups.

The project is addressing climate-induced flood risks by introducing FRM and CCA measures. In general, the project is providing key environmental protection benefits through the introduction of disaster risk reduction, climate change adaptation and protection of people, property and the environment from major hazards. In the long-run the project will bring about significant environmental benefits by increasing the country's resilience to climate-induced flood disasters and thus, enabling its population to better protect national assets, including environmental assets (land, forest and land resources).

Environmental co-benefits mainly relate to EbA strategies such as riparian plantings and agro-forestry which will provide water retention functions; regulation of hydrological flows (buffer runoff, soil infiltration, groundwater recharge, maintenance of base flows); natural hazard mitigation (e.g., flood prevention, peak flow reduction, soil erosion and landslide control); increased streambed stabilization resulting in decreased erosion, habitat preservation, and reforestation.




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## **VI. AVOIDANCE AND MITIGATION MEASURES**

There are a range of options to avoid and/or mitigate the environmental and social impacts associated with the proposed interventions. The ESMF contained in Chapter Nine of the ESAR sets out appropriate and comprehensive mitigation measures for the potential impacts of the activities, in particular in the channels of the rivers and forestry activities. With compliance with the ESMF, the project is unlikely to have any significant impacts/risks.

The most appropriate mitigation measure is to ensure project activities to do not occur during periods of rainfall which could significantly increase sediment discharges and erosion. All works should comply with the Guidelines for nature-friendly stabilization of the riverbed and riparian areas. All areas should be revegetated as soon as possible to reduce erosion and sediment loss.

Prior to any activity being carried out, the project should ensure equitable participation of men and women in all project activities. Further, the project should ensure it undertakes an assessment of sex-disaggregated data and the gender analysis as well as investigating any vulnerable groups.

Any access requirements to any land should be undertaken in full compliance with a voluntary land access agreement that should be signed before any activities on private land are undertaken.

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## **VII. STAKEHOLDER ENGAGEMENT AND PUBLIC PARTICIPATION**

### **Public Consultation and Environmental and Social Disclosure**

The project has been discussed with a wide range of stakeholders including relevant government departments, industry groups, NGOs, and individual community members and approved by the Governments of Bosnia and Herzegovina. On-ground consultation has been undertaken during the design of the project (as well as during the earlier projects that this project is aiming too upscale). A summary of stakeholder consultation is contained in Annex 7 of the Funding Proposal. Consultation will continue throughout the project and a Stakeholder Engagement Plan has been prepared (refer Annex VII of the Full Proposal).

The UNDP, and the Water Agencies will develop and release updates on the project on a regular basis to provide interested stakeholders with information on project status. Updates may be via a range of media e.g., print, radio, social media or formal reports. A publicised telephone number will be maintained throughout the project to serve as a point of contact for enquiries, concern, complaints and/or grievances. All enquiries, concern, complaints and/or grievances will be recorded on a register and the appropriate manager will be informed. All material must be published in English and B&H languages as appropriate.

Where there is a community issue raised, the following information will be recorded:

- time, date and nature of enquiry, concern, complaints and/or grievances;
- type of communication (e.g., telephone, letter, personal contact);
- name, contact address and contact number;
- response and investigation undertaken as a result of the enquiry, concern, complaints and/or grievances; and
- actions taken and name of the person taking action.

Some enquiries, concern, complaints and/or grievances may require an extended period to address. The complainant(s) will be kept informed of progress towards rectifying the concern. All enquiries, concerns, complaints and/or grievances will be investigated, and a response given to the complainant in a timely manner. A grievance



redress mechanism has been included in the ESAR and ESMF to address any complaints that may not be able to be resolved quickly.

The nominated PMU/contractor staff will be responsible for undertaking a review of all enquiries, concern, complaints and/or grievances and ensuring progress toward resolution of each matter.

### **Safeguard Instruments Applicable to Project**

As noted above and in the SESP (Appendix 1), potential impacts of the project will be managed through the preparation and implementation of the various safeguards instruments. All safeguards instruments prepared during project implementation will be guided by this ESAR/ESMF and will meet UNDP's SES requirements as well as B&H Law. The following safeguards instruments are applicable:

- Strategic Environmental and Social Assessment will assess impacts of land use planning or policy changes.
- Guidelines for nature-friendly stabilization of the riverbed and riparian areas will be developed to guide the specific riverwork project.
- Preliminary Environmental Assessments (site-specific) –will be conducted for all riverwoks as required by B&H law. These site-specific assessments will stipulate mitigation measures that will be codified in site-specific environmental permits that will be later integrated into the applicable site-specific construction permit issued by the Relevant government Ministry and water permit issued for each site by Water Agency.
- Moreover, the preliminary EIA on the Krupa River site will incorporate applicable elements of Biodiversity Action Plan as per the UNDP SES 1 to ensure there are no measurable adverse impacts on the criteria or biodiversity values of Hutovo Blato Ramsar site, and on the ecological processes supporting those biodiversity values this will be done even if the potential impacts of the project on this site were ranked Low and Moderate).
- Contractors will be required to provide work method statements as part of permit applications. Water permits will specify any additional contractor requirements (over those required by the plans listed above).
- Strategic Environmental and Social Assessment – where required by law to assess impacts of land use planning or policy changes.
- Stakeholder Engagement Plan (refer Annexure VII of Full Funding Proposal)
- Grievance Redress Mechanism (refer Annexure VII of Full Funding Proposal)
- Gender Action Plan
- SEAH Action plan (Appendix 2)






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## VIII. ENVIRONMENTAL AND SOCIAL RISK MANAGEMENT

This section identifies the key environmental and social indicators identified for the project and outlines respective management objectives, potential impacts, control activities and the environmental performance criteria against which these indicators will be judged (i.e., audited).

This section further addresses the need for monitoring and reporting of environmental performance with the aim of communicating the success and failures of control procedures, distinguish issues that require rectification and identify measures that will allow continuous improvement in the processes by which the projects are managed.

### **Purpose and Objectives of the Environmental and Social Management Framework**

An ESMF is a management tool used to assist in minimising the impact to the environment and socially; and establish a set of environmental and social objectives. To ensure the environmental and social objectives of the projects are met, this ESMF will be used by the project implementers to structure and control the environmental and social management safeguards that are required to avoid or mitigate adverse effects on the environment and communities.

The environmental and social objectives of the projects are to:

- provide an early warning system that ensures adequate measures are undertaken prior to any event.
- reduce flooding impacts.
- encourage good management practices through planning, commitment and continuous improvement of environmental practices.
- minimize or prevent the pollution of land, air and water pollution.
- protect native flora, fauna and important ecosystems.
- comply with applicable laws, regulations and standards for the protection of the environment.
- ensure gender equality and inclusion across all facets of the project
- apply zero tolerance to sexual exploitation, abuse and harassment
- adopt the best practicable means available to prevent or minimize environmental impact.
- describe monitoring procedures required to identify impacts on the environment; and
- provide an overview of the obligations of GoB&H and UNDP staff and contractors in regard to environmental obligations.

The ESMF will be updated from time to time by the implementing Project Management Unit (PMU)/contractor in consultation with the UNDP staff and GoB&H to incorporate changes in the detailed design phase of the projects.

### **Overview of Institutional Arrangements for the Environmental and Social Management Framework**

The ESMF will be assessed for each sub-project by the relevant Water Agency and UNDP prior to any works being undertaken. The ESMF identifies potential risks to the environment and social matters from the projects and outlines strategies for managing those risks and minimising undesirable environmental and social impacts. Further, the ESMF provides a Grievance Redress Mechanism for those that may be impacted by the projects that do not consider their views have been heard.

The B&H will be responsible for the supervision of the ESMF. The UNDP will gain the endorsement of the B&H and will ensure the ESMF is adequate and followed. The PMU will ensure timely remedial actions are taken by the contractor where necessary.

### **Administration**

The UNDP will be responsible for the revision or updates of this document during the course of work. It is the responsibility of the person to whom the document is issued to ensure it is updated.



The site supervisor will be responsible for daily environmental inspections of the construction site. The UNDP will cross check these inspections by undertaking monthly audits.

The contractor will maintain and keep all administrative and environmental records which would include a log of complaints together with records of any measures taken to mitigate the cause of the complaints.

The contractor will be responsible for the day-to-day compliance of the ESMF.

The UNDP will be the implementing agency and will be responsible for the implementation and compliance with the ESMF via the collaborating partners and contractors. The ESMF will be part of any tender documentation.

The Supervising Engineer/Project Manager will supervise the contractor, while the UDNP will be responsible for environment and social issues.

Implementation and operation

General Management Structure and Responsibilities

All project activities (GCF interventions and co-financed activities) will be managed using the project management structure shown in Figure 13Error! Reference source not found.. The use of a common project management structure will result in improved application of common systems and approaches, as well as enabling adherence to the UNDP SES. The key roles are discussed below.

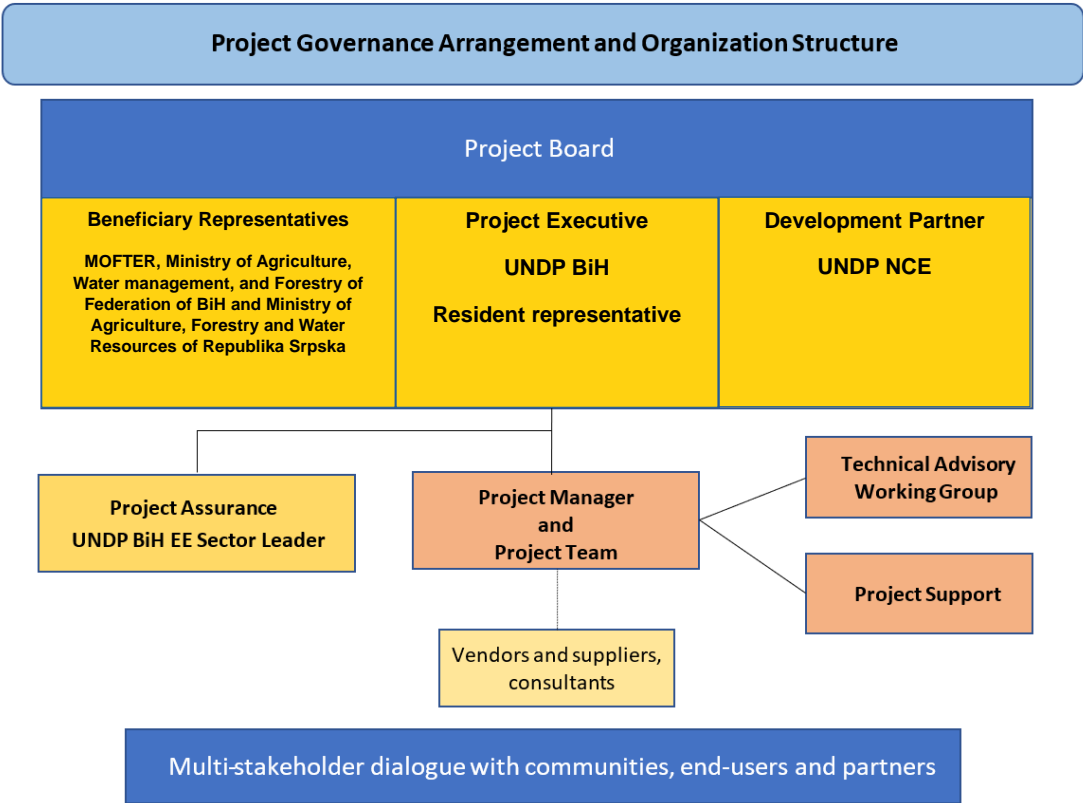


Figure 13 Project organization structure



## **Project Board**

The Project Board (PB) is comprised of the following organizations: Ministry of Foreign Trade and Economic Relations of Bosnia and Herzegovina, Ministry of Agriculture, Water Management, and Forestry of Federation of B&H, Ministry of Agriculture, Forestry, and Water Resources of Republic Srpska and UNDP. The PB will be responsible for ensuring the application of the UNDP SES to all activities.

## **Project Management Unit**

The Project Management Unit, under supervision of the UNDP and B&H GCF focal point, will run the project on a day-to-day basis within the constraints laid down by the Project Board. The PMU, like the PB, will be responsible for ensuring that all activities undertaken by the project meet the UNDP SES (refer Section 0). The PMU will include the key roles identified in the organisation chart, in particular the Project Manager.

The Project Manager will run the project on a day-to-day basis. The Project Manager's function will end when the final project terminal evaluation report and other documentation required by the GCF and UNDP, has been completed and submitted to UNDP. The Project Manager is responsible for day-to-day management and decision-making for the project. The Project Manager's prime responsibility is to ensure that the project produces the results specified in the project document, to the required standard of quality and within the specified constraints of time and cost.

## **Safeguard Officer and Field Officers**

The Safeguards Officer will be a member of the Project Management team. The Safeguards Officer is responsible for ensuring that safeguards on the project are implemented as per the approved plans, in line with UNDP SES. The Safeguard Officer will act as a focal point for all safeguard related issues, including GRM. The Safeguard Officer will work closely with the Field Officers to ensure that the required safeguards are being implemented and monitored at a site level (ie the Safeguard Officer will monitor performance of Field Officers and provide advise where required). Site audits will be undertaken by the Safeguards Officer as a way of monitoring performance.

Field officers will be responsible for the day to day inspection and monitoring of sites. The Field Officers (also known as Water Inspectors) will be employees from the Water Authorities who are experienced with field operations and infrastructure delivery, inspection of sites, ensuring implementation of laws and regulations

## **UNDPs Role and Responsibilities**

UNDP is accountable to the GCF for the implementation of this project. This includes oversight of project execution to ensure that the project is being carried out in accordance with agreed standards and provisions. UNDP is responsible for delivering GCF project cycle management services comprising project approval and start-up, project supervision and oversight, and project completion and evaluation. UNDP is also responsible for the Project Assurance role of the Project Steering Committee. UNDP's role includes the following:

- Provide oversight on all matters related to safeguards
- Inform all the stakeholders and right-holders involved in, or potentially impacted, positively or negatively, by the GCF-financed projects, about the UNDP's corporate Accountability Mechanism
- Ensure that the Compliance Review and the Stakeholder Response Mechanisms are operational during the lifetime of the project
- Ensure that the Compliance Review and the Stakeholder Response Mechanisms are operational during the lifetime of the project
- Ensure that the Compliance Review and the Stakeholder Response Mechanisms are operational during the lifetime of the project



- Provide technical guidance on implementation of the ESMF and administrative assistance in recruiting and contracting expert safeguards services (as required) and monitor adherence of the project to the ESMF and UNDP policies and procedures”

## **Project Delivery and Administration**

### **Project Delivery**

The project will be delivered on the ground via the relevant State Entity through their Water Agencies. In addition, collaboration with atoll councils, existing NGOs and local communities is expected UNDP.

#### **Administration of Environmental and Social Management Framework**

As the implementing agency, UNDP will be responsible for responsible for the implementation with the ESMF via the delivery organisations.

The ESMF will be part of any tender documentation. The UNDP will be responsibility of the person to whom the document is issued to ensure it is the most up to date version.

The UNDP are accountable for the provision of specialist advice on environmental and social issues to the delivery organisations (e.g., contractors and/or NGOs) and for environmental and social monitoring and reporting. The UNDP or its delegate will assess the environmental and social performance of the delivery organisations (e.g., contractors) in charge of delivering each component throughout the project and ensure compliance with the ESMF. During operations the delivery organisations will be accountable for implementation of the ESMF. Personnel working on the projects have accountability for preventing or minimising environmental and social impacts.

The Field Officer will be responsible for daily environmental inspections of the project/construction site. The UNDP or its delegate will cross check these inspections by undertaking monthly audits.

The delivery organisation e.g., contractor will maintain and keep all administrative and environmental records, which would include a log of complaints together with records of any measures taken to mitigate the cause of the complaints.

The delivery organisation will be responsible for the day-to-day compliance of the ESMF

#### **Environmental procedures, site and activity-specific work plans/instructions**

Environmental procedures provide a written method describing how the management objectives for a particular environmental element are to be obtained. They contain the necessary detail to be site or activity-specific and are required to be followed for all construction works. Site and activity-specific work plans and instructions are to be issued and will follow the previously successful work undertaking similar projects by the UNDP.

### **Environmental incident reporting**

Any incidents, including non-conformances to the procedures of the ESMF are to be recorded using an Incident Record and the details entered into a register. For any incident that causes or has the potential to cause material or serious environmental harm, the Field Officer shall notify the Project Manager as soon as possible. The delivery organisation/contractor must cease work until remediation has been completed as per the approval of UNDP.

#### **Daily and weekly environmental inspection checklists**

A daily environmental checklist is to be completed at each work site by the relevant Field Officer and maintained within a register. A weekly environmental checklist is to be completed and will include reference to any issues identified in the daily checklists completed by the field officers. The completed checklist is to be forwarded to Water Agency and UNDP for review and follow-up if any issues are identified.

### **Corrective Actions**



Any non-conformances to the ESMF are to be noted in weekly environmental inspections and logged into the register. Depending on the severity of the non-conformance, the Field Officer may specify a corrective action on the weekly site inspection report. The progress of all corrective actions will be tracked using the register. Any non-conformances and the issue of corrective actions are to be advised to UNDP.

### **Review and auditing**

The ESMF and its procedures are to be reviewed at least every two months by UNDP staff and the relevant Water Agency. The objective of the review is to update the document to reflect knowledge gained during the course of project delivery/construction and to reflect new knowledge and changed community standards (values).

The ESMF will be reviewed, and amendments made if:

There are relevant changes to environmental conditions or generally accepted environmental practices; or

New or previously unidentified environmental risks are identified; or

Information from the project monitoring and surveillance methods indicate that current control measures require amendment to be effective; or

There are changes to environmental legislation that are relevant to the project; or

There is a request made by a relevant regulatory authority; or

Any changes are to be developed and implemented in consultation with UNDP Staff and the relevant Water Agency. When an update is made, all site personnel are to be made aware of the revision as soon as possible e.g., through a toolbox meeting or written notification.

### **Training**

Delivery organisations have the responsibility for ensuring systems are in place so that relevant employees, contractors and other workers are aware of the environmental and social requirements for construction, including the ESMF.

All project personnel will attend an induction that covers health, safety, environment and cultural requirements.

All workers engaged in any activity with the potential to cause serious environmental harm (e.g., handling of hazardous materials) will receive task specific environmental training.

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## **IX. COMMUNICATION**

### **Public consultation and Environmental and Social Disclosure**

The ESMF includes public consultation as part of the stakeholder engagement plan. The project was discussed with a wide range of stakeholders including relevant government departments, industry groups, NGOs, and individual community members and approved by Government. Extensive on-ground consultation has been undertaken during the design of the project (as well as during the earlier projects that this project is aiming to upscale) and it is expected that consultation with any affected communities will continue. It is anticipated that based on the communities' needs, the projects will be fully accepted.

The UNDP and the relevant Water Agencies will develop and release updates on the project on a regular basis to provide interested stakeholders with information on project status. Updates may be via a range of media e.g., print, radio, social media or formal reports. In addition to project updates, outputs from the project will also include knowledge management and learning tools such as the establishment of an online knowledge bank, knowledge cafes and building upon the GeoPortal that was developed under the Vrbas project. These provide the public with greater access for participatory flood risk management and therefore better understanding of the project.



A publicized telephone number will be maintained throughout the project to serve as a point of contact for enquiries, concern, complaints and/or grievances. All enquiries, concern, complaints and/or grievances will be recorded on a register and the appropriate manager will be informed. All material must be published in English and B&H languages as appropriate.

Where there is a community issue raised, the following information will be recorded:

- a. time, date and nature of enquiry, concern, complaints and/or grievances;
- b. type of communication (e.g. telephone, letter, personal contact);
- c. name, contact address and contact number;
- d. response and investigation undertaken as a result of the enquiry, concern, complaints and/or grievances; and
- e. actions taken and name of the person taking action.

Some enquiries, concern, complaints and/or grievances may require an extended period to address. The complainant(s) will be kept informed of progress towards rectifying the concern. All enquiries, concerns, complaints and/or grievances will be investigated, and a response given to the complainant in a timely manner. A grievance redress mechanism has been included in the ESMF to address any complaints that may not be able to be resolved quickly.

Nominated PMU/contractor staff will be responsible for undertaking a review of all enquiries, concern, complaints and/or grievances and ensuring progress toward resolution of each matter.

#### **Complaints Register and Grievance Redress Mechanism**

During the construction and implementation phases of any project, a person or group of people can be adversely affected, directly or indirectly due to the project activities. The grievances that may arise can be related to social issues such as eligibility criteria and entitlements, disruption of services, temporary or permanent loss of livelihoods and other social and cultural issues. Grievances may also be related to environmental issues such as excessive dust generation, damages to infrastructure due to construction related vibrations or transportation of raw material, noise, traffic congestions, decrease in quality or quantity of private/ public surface/ ground water resources during irrigation rehabilitation, damage to home gardens and agricultural lands etc.

Should such a situation arise, there must be a mechanism through which affected parties can resolve such issues in a cordial manner with the project personnel in an efficient, unbiased, transparent, timely and cost-effective manner. To achieve this objective, a grievance redress mechanism has been included in ESMF for this project.

The project allows those that have a complaint or that feel aggrieved by the project to be able to communicate their concern, complaints and/or grievances through an appropriate process. The Complaints Register and Grievance Redress Mechanism set out in this ESMF are to be used as part of the project and will provide an accessible, rapid, fair and effective response to concerned stakeholders, especially any vulnerable group who often lack access to formal legal regimes.

While recognising that many complaints may be resolved immediately, the Complaints Register and Grievance Redress Mechanism set out in this ESMF encourages mutually acceptable resolution of issues as they arise. The Complaints Register and Grievance Redress Mechanism set out in this ESMF has been designed to:

- a. be a legitimate process that allows for trust to be built between stakeholder groups and assures stakeholders that their concerns will be assessed in a fair and transparent manner;



- b. allow simple and streamlined access to the Complaints Register and Grievance Redress Mechanism for all stakeholders and provide adequate assistance for those that may have faced barriers in the past to be able to raise their concerns;
- c. provide clear and known procedures for each stage of the Grievance Redress Mechanism process, and provides clarity on the types of outcomes available to individuals and groups;
- d. ensure equitable treatment to all concerned and aggrieved individuals and groups through a consistent, formal approach that, is fair, informed and respectful to a concern, complaints and/or grievances;
- e. to provide a transparent approach, by keeping any aggrieved individual/group informed of the progress of their complaint, the information that was used when assessing their complaint and information about the mechanisms that will be used to address it; and
- f. enable continuous learning and improvements to the Grievance Redress Mechanism. Through continued assessment, the learnings may reduce potential complaints and grievances.

Eligibility criteria for the Grievance Redress Mechanism include:

- a. Perceived negative economic, social or environmental impact on an individual and/or group, or concern about the potential to cause an impact;
- b. clearly specified kind of impact that has occurred or has the potential to occur; and explanation of how the project caused or may cause such impact; and
- c. individual and/or group filing of a complaint and/or grievance is impacted, or at risk of being impacted; or the individual and/or group filing a complaint and/or grievance demonstrates that it has authority from an individual and or group that have been or may potentially be impacted on to represent their interest.

Local communities and other interested stakeholders may raise a grievance/complaint at all times to the UNDP and/or Water Agency. Affected local communities should be informed about the ESMF provisions, including its grievance mechanism and how to make a complaint.

### **Complaints Register**

Where there is a community issue raised, the following information will be recorded:

A complaints register will be established as part of the project to record any concerns raised by the community during construction. Any complaint will be advised to the UNDP within 24 hours of receiving the complaint. The complaint will be screened. Following the screening, complaints regarding corrupt practices will be referred to the UNDP for commentary and/or advice.

Wherever possible, the project team will seek to resolve the complaint as soon as possible, and thus avoid escalation of issues. However, where a complaint cannot be readily resolved, then it must be escalated.

A summary list of complaints received and their disposition must be published in a report produced every six months.

### **Grievance Redress Mechanism**

The Grievance Redress Mechanism has been designed to be problem-solving mechanism with voluntary good-faith efforts. The Grievance Redress Mechanism is not a substitute for the legal process. The Grievance Redress Mechanism will as far as practicable, try to resolve complaints and/or grievances on terms that are mutually acceptable to all parties. When making a complaint and/or grievance, all parties must always act, in good faith and should not attempt to delay and or hinder any mutually acceptable resolution.

In order to ensure smooth implementation of the Project and timely and effectively addressing of problems that may be encountered during implementation, a robust Grievance Redress Mechanism, which will enable to the Project Authorities to address the grievances of the stakeholders of the Project has been established.



All complaints and/or grievances regarding social and environmental issues can be received either orally (to the field staff), by phone, in complaints box or in writing to the UNDP, relevant Water Agency or the Construction Contractor. A key part of the grievance redress mechanism is the requirement for the UNDP/PMU and construction contractor to maintain a register of complaints and/or grievances received at the respective project site offices. All complainants shall be treated respectfully, politely and with sensitivity. Every possible effort should be made by the UNDP/Water Agency/PMU and construction contractor to resolve the issues referred to in the complaint and/or grievance within their purview. However, there may be certain problems that are more complex and cannot be solved through project-level mechanisms. Such grievances will be referred to the Grievance Redress Committee. It would be responsibility of the Water Agencies to solve these issues through a sound / robust process.

The Grievance Redress Mechanism has been designed to ensure that an individual and/or group are not financially impacted by the process of making a complaint and/or grievance. The Grievance Redress Mechanism will cover any reasonable costs in engaging a suitably qualified person to assist in the preparation of a legitimate complaint and/or grievance. Where a complaint and/or grievance is seen to be ineligible, the Grievance Redress Mechanism will not cover these costs.

Communities affected or likely to be affected by the project are to be informed about the project Grievance Redress Mechanism, as well as the independent mechanisms provided by UNDP and GCF (refer below) at the earliest opportunity of stakeholder engagement. Information about the Grievance Redress Mechanism and how to make a complaint and/or grievance must be provided in an understandable format and languages. Key grievance redress information, such as how to make a complaint, should be placed at prominent places for the information of the key stakeholders.

The Safeguards officer in the PMU will be designated as the key officer in charge of the Grievance Redress Mechanism. The Terms of Reference for these positions (as amended from time to time) will have the following key responsibilities:

- a. coordinate formation of Grievance Redress Committees before the commencement of constructions to resolve issues;
- b. act as the focal point at the PMU on Grievance Redress issues and facilitate the resolution of issues within the PMU;
- c. create awareness of the Grievance Redress Mechanism amongst all the stakeholders through public awareness campaigns;
- d. assist in redress of all grievances by coordinating with the concerned parties;
- e. maintain information on grievances and redress;
- f. monitor the activities of the Water Agencies on grievances issues; and
- g. prepare the progress for monthly/quarterly reports.

A multi-tiered Grievance Redress Mechanism structure has been developed to address all complaints and/or grievances in the project (Figure 14).



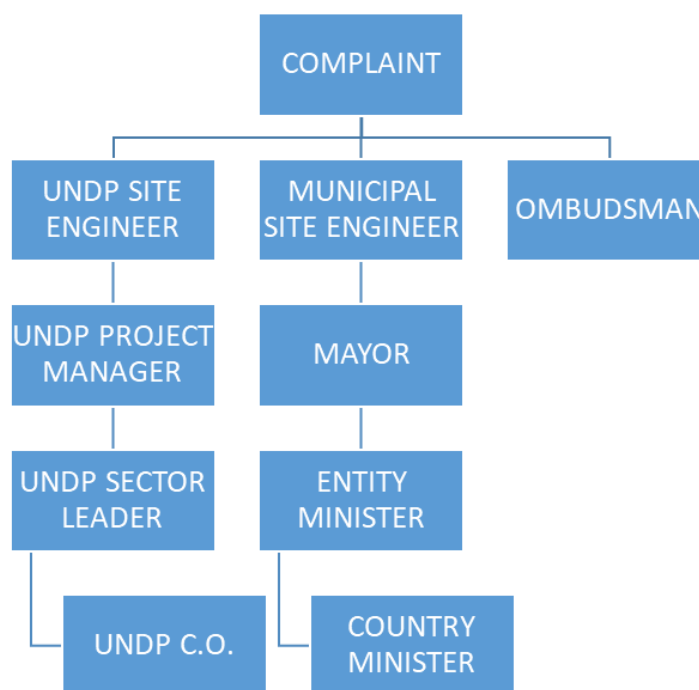


Figure 14 Multi-tiered GRM

The first tier redress mechanism involves the receipt of a complaint and/or grievance at the project site and/or Mayoral level. The stakeholders are informed of various points of making a complaint and/or grievance (if any) and the PMU collect the complaints and/or grievances from these points on a regular basis and record them. This is followed by coordinating with the concerned people to redress the grievances. The designated Safeguards Officer of the PMU will coordinate the activities at the respective District level to address the grievances and would act as the focal point in this regard. The Authorised Community Officer of the Local Authority or in the absence of the Community Development Officer, any officer given the responsibility of this would coordinate with the Safeguards and Gender Manager of the PMU and the relevant Water Agency in redressing the grievances. The designated officer of the Local Authorities is provided with sufficient training in the procedure of redress to continue such systems in future.

The grievance can be made orally (to the field staff), by phone, in complaints box or in writing to the UNDP, Water Agency or the Construction Contractor. Complainants may specifically contact the Safeguards Officer and request confidentiality if they have concerns about retaliation. In cases where confidentiality is requested (i.e. not revealing the complainant's identity to UNDP, Water Agency and/or the Construction Contractor). In these cases, the Safeguards Officer will review the complaint and/or grievance, discuss it with the complainant, and determine how best to engage project executing entities while preserving confidentiality for the complainant.

As soon as a complaint and/or grievance is received, the Safeguards Officer would issue an acknowledgement. The Community Development Officer receiving the complaint and/or grievance should try to obtain relevant basic information regarding the grievance and the complainant and will immediately inform the Safeguards Officer in the PMU.

The PMU will maintain a Complaint / Grievance Redress register at the local government level. Keeping records collected from relevant bodies is the responsibility of PMU.

After registering the complaint and/or grievance, the Safeguards Officer will study the complaint and/or grievance made in detail and forward the complaint and/or grievance to the concerned officer with specific dates for replying



and redressing the same. In the event that the complaint is about GBV/SEAH, then the Safeguards Officer will advise a nominated SEAH focal point who will then assist the survivor to access GBV service providers. Nominated focal point for SEAH within the GRM will be the UNDP B&H Gender Advisor who is a fulltime permanent employee who currently oversees all gender aspects of UNDP B&H projects. For other complaints, the Safeguards Officer will hold meetings with the affected persons / complainant and then attempt to find a solution to the complaint and/or grievance received. If necessary, meetings will be held with the concerned affected persons / complainant and the concerned officer to find a solution to the problem and develop plans to redress the grievance. The deliberations of the meetings and decisions taken are recorded. All meetings in connection with the Grievance Redress Mechanism, including the meetings of the Grievance Redress Committee, must be recorded. The Safeguards Officer for the Grievances Redress Mechanism will be actively involved in all activities.

The resolution at the first tier will normally be completed within 15 working days and the complaint and/or grievance will be notified of the proposed response through a disclosure form. The resolution process should comply with the requirements of the Grievance Redress Mechanism in that it should, as far as practicable, be informal with all parties acting in good faith. Further, the Grievance Redress Mechanism should, as far as practicable, achieve mutually acceptable outcomes for all parties.

Should the grievance be not resolved within this period to the satisfaction of the complainant, the grievance will be referred to the next level of Grievance Redress Mechanism. If the social safeguard and gender officer feels that adequate solutions can be established within the next five working days, the officer can decide on retaining the issue at the first level by informing the complainant accordingly. However, if the complainant requests for an immediate transfer to the next level, the matter must be referred to the next tier. In any case, where the issue is not addressed within 20 working days, the matter is referred to the next level.

Any grievance related to corruption, or any unethical practice should be referred immediately to the Office of the Attorney General of Bosnia and Herzegovina and the Office of Audit and Investigation within the UNDP in New York.

The Grievance Redress Committee formed at each entity level would address the grievance in the second tier.

The Safeguard Officer from the PMU will coordinate with the respective Entity Government in getting these Committees constituted for each Province and get the necessary circulars issued in this regard so that they can be convened whenever required.

The Terms of Reference for the Grievance Redress Committee are:

- a. providing support to the affected persons in solving their problems;
- b. prioritize grievances and resolve them at the earliest;
- c. provide information to the PMU and UNDP on serious cases at the earliest opportunity;
- d. Coordinate with the aggrieved person/group and obtain proper and timely information on the solution worked out for his/her grievance; and
- e. study the normally occurring grievances and advise PMU, National and District Steering Committee on remedial actions to avoid further occurrences.

The Grievance Redress Committee will hold the necessary meetings with the aggrieved party/complainant and the concerned officer and attempt to find a solution acceptable at all levels. The Grievance Redress Committee would record the minutes of the meeting.

Grievance Redress Committee will communicate proposed responses to the complainant formally. If the proposed response satisfies the complainant, the response will be implemented and the complaint and/or grievance closed. In cases where a proposed response is unsatisfactory to the complainant, the Grievance Redress Committee may



choose to revise the proposed response to meet the complainant's remaining concerns, or to indicate to the complainant that no other response appears feasible to the Grievance Redress Committee. The complainant may decide to take a legal or any other recourse if s/he is not satisfied with the resolutions due to the deliberations of the three tiers of the grievance redress mechanism.

In addition to the project-level and national grievance redress mechanisms, complainants have the option to access UNDP's Accountability Mechanism, with both compliance and grievance functions. The Social and Environmental Compliance Unit investigates allegations that UNDP's Standards, screening procedure or other UNDP social and environmental commitments are not being implemented adequately, and that harm may result to people or the environment. The Social and Environmental Compliance Unit is housed in the Office of Audit and Investigations, and is managed by a Lead Compliance Officer. A compliance review is available to any community or individual with concerns about the impacts of a UNDP programme or project. The Social and Environmental Compliance Unit is mandated to independently and impartially investigate valid requests from locally impacted people, and to report its findings and recommendations publicly.

The Stakeholder Response Mechanism offers locally affected people an opportunity to work with other stakeholders to resolve concerns, complaints and/or grievances about the social and environmental impacts of a UNDP project. Stakeholder Response Mechanism is intended to supplement the proactive stakeholder engagement that is required of UNDP and its Implementing Partners throughout the project cycle. Communities and individuals may request a Stakeholder Response Mechanism process when they have used standard channels for project management and quality assurance and are not satisfied with the response (in this case the project level grievance redress mechanism). When a valid Stakeholder Response Mechanism request is submitted, UNDP focal points at country, regional and headquarters levels will work with concerned stakeholders and Implementing Partners to address and resolve the concerns. Visit [www.undp.org/secu-srm](http://www.undp.org/secu-srm) for more details. The relevant form is attached at the end of the ESMF.

GCF also have their own Independent Redress Mechanism (IRM) which addresses complaints by people who believe they are negatively affected or may be affected by projects or programmes funded by the GCF. In the case of grievances in relation to affected indigenous peoples, the GCF Indigenous Peoples Specialist is also available. Further information and links to submit complaints can be found at: <https://irm.greenclimate.fund/>



**X. KEY ENVIRONMENTAL AND SOCIAL INDICATORS**

This section identifies the key environmental and social indicators identified for the project and outlines respective management objectives, potential impacts, control activities and the environmental performance criteria against which these indicators will be judged (i.e. audited).

This section further addresses the need for monitoring and reporting of environmental performance with the aim of communicating the success and failures of control procedures, distinguish issues that require rectification and identify measures that will allow continuous improvement in the processes by which the projects are managed.

**Surface Water**

**Performance Criteria**

The following performance criteria are set for the construction of the projects:

- no significant decrease in water quality as a result of construction and operational activities;
- water quality shall conform to any approval conditions stipulated by UNDP, Water Agency and/or other government departments, or in the absence of such conditions follow a ‘no worsening’ methodology; and
- effective implementation of Guidelines for nature-friendly stabilization of the riverbed and riparian areas.

**Monitoring**

Having water of a quality that is fit for purpose is important. Water quality can affect plant growth, livestock health, soil quality, farm equipment and domestic use. The quality of a water source is also variable depending upon weather and external inputs.

Evaporation increases the concentrations of salts while a flush of water dilutes salts but may increase sediment and fertilisers, and manure or nutrient runoff. Monitoring should be done regularly and more frequently in summer or in periods of prolonged moisture stress.

Table 12 outlines the monitoring required.

**Reporting**

All water quality monitoring results and/or incidents will be tabulated and reported as outlined in the ESMF. The Water Agency must be notified immediately in the event of any suspected instances of material or serious environmental harm, or if a determined level with respect to water quality is exceeded.


**Table 12 Water Quality Management Measures**

Issue	Control activity (and source)	Action timing	Responsibility	Monitoring & reporting
W1: Elevated suspended solids and other contaminants in surface water systems.	W1.1: Develop and implement Guidelines for nature-friendly stabilization of the riverbed and riparian areas that will, amongst other things be inspired by the best-in-class approaches proposed in the <a href="#">EC Guidelines and good practices for integrated sediment management in the context of the Water Framework Directive</a> and other additional good-practice materials such as the Swiss channel stabilization techniques that involve reshaping the channel, installing boulders or rock structures to deflect the flow, or creating step pools to dissipate energy and reduce erosion. .	Pre Earthworks	Field Officer	Initial set up and then as required with reporting to GOB&H and UNDP
	W1.2: Designated areas for storage of fuels, oils, chemicals or other hazardous liquids should have compacted impermeable bases and be surrounded by a bund to contain any spillage. Refueling to be undertaken in areas away from water systems.	Entire construction and operation phase	All Personnel	Weekly with reporting to Water Agency and UNDP
	W1.4: Schedule works in stages to ensure that disturbed areas are revegetated and stabilized progressively and as soon as practicable after completion of works.	Avoid undertaking bulk earthworks during wet season	Field Officer and Water Agency	Maintain records
	W1.5: Construction materials will not be stockpiled in proximity to aquatic environment that may allow for release into the environment. Construction equipment will be removed from in proximity to the aquatic environment at the end of each working day or if heavy rainfall is predicted	Entire construction and operation phase	Field Officer	Maintain daily records
	W1.6: Water quality in surface waters upstream and downstream of work sites to be monitored.	During construction	Water Agency	Maintain records
W2: Works within a watercourse.	W2.1: All works must be approved by the relevant Ministry and Water Agency.	Pre-construction	Water Agency	Maintain records



## **Erosion, Drainage and Sediment Control**

### **Background**

Soil erosion depends on several parameters such as type of soil, slope, vegetation, the nature of topography and rainfall intensity. The loss of soil stability and soil erosion can take place due to the removal of vegetation cover, and numerous construction activities. It can cause the loss of soil fertility and induce slope instability. Land preparation for the project could result in blockage or alteration of natural flow paths causing changes in the drainage patterns in the area. Effective and efficient mitigation measures can not only reduce but could improve the conditions over the existing conditions.

Rainfall can have a significant impact on the ability to manage environmental impacts, particularly in terms of managing drainage, erosion and sedimentation. Therefore, activities which involve significant disturbance of soil or operating with drainage lines and waterways should be planned to be undertaken during the driest months. It is also important to ensure that all required erosion and sediment control mechanisms are in place before the onset of the wet season.

Activities that have the potential to cause erosion should be undertaken with the likely weather conditions in mind.

### **Performance Criteria**

The following performance criteria are set for the projects:

- a) no build-up of sediment in the aquatic environments and/or surface and/or groundwater as a result of construction and operation activities;
- b) no degradation of water quality on or off site of all projects;
- c) all water exiting the project site and/or into groundwater systems is to have passed through best practice erosion, drainage and sediment controls; and
- d) effective implementation of Guidelines for nature-friendly stabilization of the riverbed and riparian areas.

By following the management measures set out in the ESMF, construction and operation activities of the projects will not have a significant impact as a result of sedimentation across the broader area.

### **Monitoring**

A standardised sediment control monitoring program has been developed for the projects (Table 13). The program is subject to review and update at least every two months from the date of issue. The Field Officer will be required to:

- a. conduct site inspections on a weekly basis or after rainfall events exceeding 20mm in a 24-hour period;
- b. develop a site-specific checklist to document non-conformances to this ESMF or applicable Guidelines for nature-friendly stabilization of the riverbed and riparian areas; and
- c. communicate the results of inspections and/or water quality testing and ensure that any issues associated with control failures are rapidly rectified and processes are put in place to ensure that similar failures are not repeated.

### **Reporting**

All sediment and erosion control monitoring results and/or incidents will be tabulated and reported as outlined in the ESMF. The UNDP must be notified immediately in the event of any suspected instances of material or serious environmental harm, or if a determined level with respect to erosion and sediment control is exceeded.


**Table 13 Erosion, Drainage and Sediment Control Measures**

Issue	Control activity (and source)	Action timing	Responsibility	Monitoring & reporting
E1: Loss of soil material and sedimentation to the surface and/or groundwater systems from site due to earthwork activities	E1.1: Develop and implement Guidelines for nature-friendly stabilization of the riverbed and riparian areas for any surface works, embankments and excavation work, water crossings and stormwater pathways.	Prior to construction phase	All Personnel	Maintain records
	E1.2: Ensure that erosion and sediment control devices are installed, inspected and maintained as required.	Construction phase	All Personnel	Maintain records
	E1.3: Schedule/stage works to minimize cleared areas and exposed soils at all times.	Pre and during construction	Field Officer	Maintain records
	E1.4: Incorporate the design and location of temporary and permanent EDSC measures for all exposed areas and drainage lines. These shall be implemented prior to pre-construction activities and shall remain onsite during work	Pre and during construction	Field Officer	Maintain records
	E1.5: Schedule/stage proposed works to ensure that major vegetation disturbance and earthworks are carried out during periods of lower rainfall and wind speeds.	Pre and during construction	Field Officer	Maintain records
	E1.6: Strip and stockpile topsoil for use during revegetation and/or place removed soils back on to agricultural lands.	Pre and during construction	Field Officer	Maintain records
	E1.7: Schedule/stage works to minimize the duration of stockpiling topsoil material. Vegetate stockpiles if storage required for long periods.	During construction	All Personnel	Maintain records
	E1.8: Locate stockpile areas away from drainage pathways, waterways and sensitive locations.	Pre and during construction	Field Officer	Maintain records



Issue	Control activity (and source)	Action timing	Responsibility	Monitoring & reporting
E1: Loss of soil material and sedimentation to the surface and/or groundwater systems from site due to earthwork activities	E1.9: Design stormwater management measures to reduce flow velocities and avoid concentrating runoff.	Pre and during construction	Field Officer	Maintain records
	E1.10: Include check dams in drainage lines where necessary to reduce flow velocities and provide some filtration of sediment. Regularly inspect and maintain check dams.	Pre and during construction	Field Officer	Maintain records
	E1.11: Mulching shall be used as a form of erosion and sediment control and where used on any slopes (dependent on-site selection), include extra sediment fencing during high rainfall.	During construction	All Personnel	Maintain records
	E1.12: Bunding shall be used either within watercourses or around sensitive/dangerous goods as necessary.	During construction	All Personnel	Maintain records
	E1.13: Grassed buffer strips shall be incorporated where necessary during construction to reduce water velocity.	During construction	Field Officer	Maintain records
	E1.14: Silt fences or similar structures to be installed to protect from increased sediment loads.	During construction	Contractors	Maintain records
	E1.15: Excess sediment in all erosion and sediment control structures (e.g., sediment basins, check dams) shall be removed when necessary to allow for adequate holding capacity.	During construction	Contractors	Maintain records
Issue	Control activity (and source)	Action timing	Responsibility	Monitoring & reporting
E2: Soil Contamination	E2.1: If contamination is uncovered or suspected (outside of the project footprints), undertake a Stage 1 preliminary site contamination investigation. The contractor should cease work if previously unidentified contamination is encountered and activate management procedures and obtain advice/permits/approval (as required).	Construction phase	All Personnel	Daily and maintain records





	E2.2: Adherence to best practice for the removal and disposal of contaminated soil/ material from site (if required), including contaminated soil within the project footprints.	Construction phase	All Personnel	Daily and maintain records
	E2.3: Drainage control measures to ensure runoff does not contact contaminated areas (including contaminated material within the project footprints) and is directed/diverted to stable areas for release.	Construction phase	All Personnel	Daily and maintain records
	E2.4: Avoid importing fill that may result in site contamination and lacks accompanying certification/documentation. Where fill is not available through on-site cut, it must be tested in accordance with geotechnical specifications.	Construction phase	All Personnel	Daily and maintain records
E3: Disposal of excess soil/silt	E3.4: Silt removed from canals during rehabilitation / maintenance is to be disposed of in accordance with permits from Water Agencies.	Construction and operation phases	Water Agency	Maintain records



## **Ecology**

### **Performance Criteria**

The following performance criteria are set for the construction of the projects:

- a. no large dams or significant permanent diversion of rivers
- b. no clearance of vegetation outside of the designated clearing boundaries;
- c. no death to native fauna as a result of clearing activities;
- d. no deleterious impacts on aquatic environments and terrestrial habitats;
- e. no introduction of new weed species as a result of construction activities; and
- f. no increase in existing weed proliferation within or outside of any project footprint as a result of construction activities.

### **Monitoring**

A flora and fauna monitoring program will be implemented (Table 14).

Weed monitoring will be undertaken and appropriate action taken in the event of alien or noxious species being identified.

The delivery organisation will when be undertaking works, compile a weekly report to UNDP outlining:

- a. any non-conformances to this ESMF;
- b. the areas that have been rehabilitated during the preceding week; and
- c. details of the corrective action undertaken.

### **Reporting**

All flora and fauna monitoring results and/or incidents will be tabulated and reported as outlined in the ESMF. The UNDP must be notified in the event of any suspected instances of death to native fauna and where vegetation is detrimentally impacted.


**Table 14 Flora and Fauna Management Measures**

Issue	Control Activity (and Source)	Action Timing	Responsibility	Monitoring and Reporting
FF1. Habitat loss and disturbance of fauna	FF1.1 Limit vegetation clearing and minimize habitat disturbance through adequate protection and management of retained vegetation.	During construction	Field Officer	Daily and maintain records
	FF1.2: Minimize noise levels and lighting intrusion throughout construction and operation in the vicinity of any sensitive locations.	During construction	Field Officer	Daily and maintain records
	FF1.3: Ensure that all site personnel are made aware of sensitive fauna/habitat areas and the requirements for the protection of these areas.	During construction	Contractor	Daily and maintain records
	FF1.4 Minimize disturbance to on-site fauna and recover and rescue any injured or orphaned fauna during construction and operation.	During construction	Contractor	Daily and maintain records, report
	FF1.5: Protection of aquatic fauna – in-stream works not to be undertaken in spawning season. Temporary diversion channels (within riverbed) may be required to maintain flow and fish passage. Turbidity to be minimized and water quality to be monitored	During construction	Contractor / Water Agency	Daily, maintain records
	FF1.6: Implement ESCP	During construction	Contractor	Maintain records
FF2. Introduced flora and weed species	FF2.1: Implement an ESCP to reduce the spread of weeds through erosion and sediment entering any waterways and therefore spreading.	Pre and during construction	Contractor	Maintain records
	FF2.2: Revegetate disturbed areas using native and locally endemic species that have high habitat value.	During construction	Field Officer	As required and maintain records
	FF2.3: Minimize disturbance to mature remnant vegetation, particularly canopy trees.	During construction	Field Officer	Daily and maintain records
Issue	Control Activity (and Source)	Action Timing	Responsibility	Monitoring and Reporting
FF2. Introduced flora and weed species	FF2.4: Seed is to be weed free	Operation	Field Officer	Maintain records



	FF2.5: Environmental weeds and noxious weeds within the project footprints shall be controlled.	During and post construction	Field Officer	Weekly and maintain records
FF3. Protection of aquatic habitats	FF3.1: In-stream works to be minimized.	Construction	Contractor	Maintain records
	FF3.2: Works to be scheduled to take advantage of low flow and low flood risk periods. Spawning periods to be avoided.	Construction	Contractor	Maintain records
	FF3.3: Local interest groups, such as Fisher Clubs and organizations, to be engaged to gain local knowledge of aquatic species and important habitats.	Pre-and during construction	Water Agency/Contractor	Maintain records
	FF3.4: ESDCPs to be prepared and implemented	Construction	Contractor	Maintain records
	FF3.5: Environmental flows to be maintained	Construction	Contractor	Maintain records
	FF3.6: Prepare Biodiversity Action Plan for Krupa River site (Hutovo Blato wetland) if impacts to wetland likely.	Pre-construction	Water Agencies	Maintain records



## **Air Quality**

### **Background**

All construction activities have the potential to cause air quality nuisance.

The project areas are predominantly village or rural in character. Existing air quality reflects those environments, with dust, vehicle emissions and smoke from fires being the main air quality nuisance.

Workers involved in construction and operation activities should be familiar with methods minimising the impacts of deleterious air quality and alternative construction procedures as contained in legislation of Bosnia and Herzegovina or good international industry practice.

### **Performance Criteria**

The following performance criteria are set for the construction of the projects:

- a. release of dust/particle matter must not cause an environmental nuisance;
- b. undertake measures at all times to assist in minimizing the air quality impacts associated with construction and operation activities; and
- c. corrective action to respond to complaints and/or grievances is to occur within 48 hours.

### **Monitoring**

A standardised air monitoring program has been developed for the projects (Table 15). The program is subject to review and update at least every two months from the date of issue. Importantly:

- a. the requirement for dust suppression will be visually observed by site personnel daily and by GOB&H and UNDP staff when undertaking routine site inspections; and
- b. Vehicles and machinery emissions – visual monitoring and measured when deemed excessive.

### **Reporting**

All air quality monitoring results and/or incidents will be tabulated and reported as outlined in the ESMF. The UNDP must be notified immediately in the event of any suspected instances of material or serious environmental harm, or if a determined level with respect to air quality is exceeded.

**Table 15 Air Quality Management Measures**

Issue	Control activity (and source)	Action timing	Responsibility	Monitoring & reporting
A.1 Increase in dust levels at sensitive receptors	A1.1: Implement effective dust management measures in all areas during construction and operation.	During construction and operation	All Personnel	Daily and maintain records
	A1.2: Restrict speeds on roads and access tracks.	During construction	Field Officer	Daily and maintain records
	A1.3: Manage dust/particulate matter generating activities to ensure that emissions do not cause an environmental nuisance at any sensitive locations	During construction	Field Officer	Daily and maintain records
	A1.4: Construction activities should minimize risks associated with climatic events (check forecasts).	During construction	Field Officer	Daily and maintain records
	A1.5: Implement scheduling/staging of proposed works to ensure major vegetation disturbance and earthworks are minimized.	Entire construction	Contractor	Daily and maintain records
	A1.6: Locate material stockpile areas as far as practicable from sensitive receptors. Cover if appropriate.	During construction	Field Officer	Daily and maintain records
	A1.7: Source sufficient water of a suitable quality for dust suppression activities complying with any water restrictions.	During construction	Field Officer	Daily and maintain records
	A1.8: Schedule revegetation activities to ensure optimum survival of vegetation species.	During construction	Field Officer	Maintain records
	A1.9: Rubbish receptacles should be covered and located as far as practicable from sensitive locations	During construction	Field Officer	Maintain records

Issue	Control activity (and source)	Action timing	Responsibility	Monitoring & reporting
	A2.1 Ensure vehicles/machines are switched off when not in use.	During construction	Field Officer	Daily and maintain records



A2. Increase in vehicle / machinery emissions	A2.2 Ensure only vehicles required to undertake works are operated onsite.	During construction	Field Officer	Daily and maintain records
	A2.3 Ensure all construction vehicles, plant and machinery are maintained and operated in accordance with design standards and specifications.	During construction	Field Officer	Daily and maintain records
	A2.4 Develop and implement an induction program for all site personnel, which includes as a minimum an outline of the minimum requirements for environmental management relating to the site.	Pre and during construction	Contractor	Daily and maintain records
	A2.5 Locate construction vehicle/plant/equipment storage areas as far as practicable from sensitive locations.	During construction	Field Officer	Daily and maintain records
	A2.6 Direct exhaust emissions of mobile plant away from the ground.	During construction	Field Officer	Daily and maintain records
		During construction	Field Officer	Daily and maintain records



## **Noise and Vibration**

### **Background**

All construction and operation activities have the potential to cause noise nuisance. Vibration disturbance to nearby residents and sensitive habitats is likely to be caused through the use of vibrating equipment. Blasting is not required to be undertaken as part of this project.

The use of machinery or introduction of noise generating facilities could have an adverse effect on the environment and residents if not appropriately managed.

Contractors involved in construction activities should be familiar with methods of controlling noisy machines and alternative construction procedures as contained within specific national or local legislation or in its absence, good international industry practice may be used if the legislation has not been enacted.

Potential noise sources during construction may include:

- a. heavy construction machinery;
- b. power tools and compressors;
- c. delivery vehicles;
- d. workforce.

### **Performance Criteria**

The following performance criteria are set for the construction of the projects:

- a. noise from construction and operational activities must not cause an environmental nuisance at any noise sensitive place;
- b. undertake measures at all times to assist in minimizing the noise associated with construction activities;
- c. no damage to off-site property caused by vibration from construction and operation activities; and
- d. corrective action to respond to complaints and/or grievances is to occur within 48 hours.

### **Monitoring**

Monitoring to be undertaken where indicated as required by mitigation table or as deemed appropriate.

Importantly, the site supervisor will:

- a. ensure equipment and machinery is regularly maintained and appropriately operated; and
- b. carry out potentially noisy construction activities during 'daytime' hours only.

### **Reporting**

All noise monitoring results and/or incidents will be tabulated and reported as outlined in the ESMF. The UNDP must be notified immediately in the event of any suspected instances of material or serious environmental harm, or if a determined level with respect to noise is exceeded.



**Table 16 Noise and Vibration Management Measures**

Issue	Control activity (and source)	Action timing	Responsibility	Monitoring & reporting
N1: Increased noise levels	N1.1: Select plant and equipment and specific design work practices to ensure that noise emissions are minimized during construction and operation including all pumping equipment.	All phases	Contractor	Maintain records
	N1.2: Specific noise reduction devices such as silencers and mufflers shall be installed as appropriate to site plant and equipment.	Pre and during construction	Contractor	Maintain records
	N1.3 Minimize the need for and limit the emissions as far as practicable if noise generating construction works are to be carried out outside of the hours: 7am-5.30pm	Construction phase	All Personnel	Daily and maintain records
	N1.4: Consultation with nearby residents in advance of construction activities particularly if noise generating construction activities are to be carried out outside of 'daytime' hours: 7am-5.30pm.	Construction phase	All Personnel	Daily and maintain records
	N1.5 The use of substitution control strategies shall be implemented, whereby excessive noise generating equipment items onsite are replaced with other alternatives.	Construction phase	All Personnel	Daily and maintain records
	N1.6 All incidents' complaints and non-compliances related to noise shall be reported in accordance with the site incident reporting procedures and summarized in the register.	Construction phase	Field Officer	Maintain records
	N1.7 The contractor should conduct employee and operator training to improve awareness of the need to minimize excessive noise in work practices through implementation of measures.	Pre and during construction	Contractor	Maintain records



Issue	Control activity (and source)	Action timing	Responsibility	Monitoring & reporting
N2. Vibration due to construction	N2.1: Identify properties, structures and habitat locations that will be sensitive to vibration impacts resulting from construction and operation of the project.	Pre and during construction	Contractor	Maintain records
	N2.2: Design to give due regard to temporary and permanent mitigation measures for noise and vibration from construction and operational vibration impacts.	Pre-construction	Contractor	Maintain records
	N2.3: All incidents, complaints and non-compliances related to vibration shall be reported in accordance with the site incident reporting procedures and summarized in the register.	Construction phase	Field Officer	Maintain records
	N2.4: During construction, standard measure shall be taken to locate and protect underground services from construction and operational vibration impacts.	Construction phase	Field Officer	Maintain records



## **Waste Management**

### **Background**

As the implementing agency, the GOB&H advocate good waste management practice. The preferred waste management hierarchy and principles for achieving good waste management is as follows:

- a. waste avoidance (avoid using unnecessary material on the projects).
- b. waste re-use (re-use material and reduce disposing).
- c. waste recycling (recycle material such as cans, bottles, etc.); and
- d. waste disposal (all putrescible and/or contaminated waste to be dumped at approved landfills).

The key waste streams generated during construction are likely to include residual sediment and construction wastes such as:

- a. the excavation wastes unsuitable for reuse during earthworks;
- b. wastes from construction equipment maintenance. Various heavy vehicles and construction equipment will be utilized for the duration of the construction phase. Liquid hazardous wastes from cleaning, repairing and maintenance of this equipment may be generated, however as contractors are expected to be located in nearby towns and villages it is not anticipated that any scheduled maintenance would be undertaken on site. Any leakage or spillage of fuels/oils within the site needs to be managed and disposed of appropriately;
- c. non-hazardous liquid wastes may be generated through the use of workers' facilities such as toilets; and
- d. general wastes including scrap materials and biodegradable wastes.

Workers involved in construction and operational activities should be familiar with methods minimising the impacts of clearing vegetation to minimise the footprint to that essential for the works and rehabilitate disturbed areas. By doing these activities, the projects should minimise the impact of waste generated by the project.

### **Performance Criteria**

The following performance criteria are set for the construction of the projects:

- a. waste generation is minimized through the implementation of the waste hierarchy (avoidance, reduce, reuse, recycle);
- b. no litter will be observed within the project area or surrounds as a result of activities by site personnel;
- c. no complaints received regarding waste generation and management;
- d. any waste from on-site portable sanitary facilities will be sent off site for disposal by a waste licensed contractor; and
- e. waste oils will be collected and disposed or recycled off-site, local oil companies or shipped for recycling.

### **Monitoring**

A waste management monitoring program has been developed for the projects (Table 17). The program is subject to review and update at least every two months from the date of issue.

### **Reporting**

The UNDP as implementing agency must be notified immediately in the event of any suspected instances of material or serious environmental harm, or if a determined level with respect to waste is exceeded.


**Table 17 Waste Management Measures**

Issue	Control activity (and source)	Action timing	Responsibility	Monitoring & reporting
WT1: Production of wastes and excessive use of resources	WT1.1: Preference shall be given to materials that can be used to construct the project that would reduce the direct and indirect waste generated.	Pre and during construction	Contractor	Maintain records
	WT1.2: The use of construction materials shall be optimized and where possible a recycling policy adopted.	During construction	Field Officer	Weekly and maintain records
	WT1.3: Separate waste streams shall always be maintained i.e. general domestic waste, construction and contaminated waste. Specific areas on site shall be designated for the temporary management of the various waste streams.	During construction	Field Officer	Weekly and maintain records
	WT1.4: Any contaminated waste shall be disposed of at an approved facility.	During construction	Field Officer	Weekly and maintain records
	WT1.5: Recyclable waste (including oil and some construction waste) shall be collected separately and disposed of correctly.	During construction	Field Officer	Weekly and maintain records
	WT1.6: Waste sites shall be sufficiently covered to ensure that wildlife does not have access.	During construction	Field Officer	Daily
	WT1.7: Disposal of waste shall be carried out in accordance with the local legal requirements.	During construction	Field Officer	Weekly and maintain records
	WT1.8: Fuel and lubricant leakages from vehicles and plant shall be immediately rectified.	During construction	Field Officer	Daily and maintain records

Issue	Control activity (and source)	Action timing	Responsibility	Monitoring & reporting
	WT1.10: Major maintenance and repairs shall be carried out off-site whenever practicable.	During construction	Field Officer	Weekly and maintain records



WT1: Production of wastes and excessive use of resources	WT1.11: Where possible, fuel and chemical storage and handling shall be undertaken at central fuel and chemical storage facilities, such as petrol stations.	During Construction	Field Officer	Daily and maintain records
	WT1.12: On-site storage of fuel and chemicals shall be kept to a minimum.	During Construction	Contractor	Daily, maintain records and report any incidents
	WT1.13: Any waste oils and lubricants are to be collected and transported to recyclers or designated disposal sites as soon as possible.	During Construction	Field Officer	Daily and maintain records
	WT1.14: Any dangerous goods stored on site shall be stored in accordance with B&H regulations.	During Construction	Contractor	Daily and maintain records



## **Social Management**

### **Background**

The project has been designed with the assistance of stakeholders and aims to provide benefits to the broader community. Notwithstanding, as with any project that involves construction, some dissatisfaction can occur, and conflicts may arise. It is important that potential areas of tension are recognised early, and appropriate actions taken to avoid or minimise conflict.

A Grievance Redress Mechanism has been developed to provide avenues for complainants to be heard.

The project and its sub-projects do not require involuntary resettlement or acquisition of land although they may impact on land during construction activities which will be temporary in nature.

Workforce is expected to be drawn from local communities.

A Gender Action Plan has been prepared to address potential gender issues and a SEAH Action Plan for reducing and managing SEAH risk.

### **Performance Criteria**

The following performance criteria are set for the project:

- a. the community has been consulted and project elements have been designed with their informed consultation and participation throughout the project;
- b. all stakeholders are appropriately represented;
- c. avoid adverse impacts to local community during construction and operations and where not possible, minimize, restore or compensate for these impacts;
- d. cultural heritage is not adversely impacted;
- e. community health and safety is protected and overall well-being benefits derived from the project;
- f. complaint and grievance mechanisms are put in place and proactively managed; and
- g. long-term social benefits are achieved.

Local stakeholders and community members have a key role to play in the implementation and monitoring of the project.

Consultation with stakeholders will continue. This will help ensure that stakeholders continue to be aware of the project, its progress and any changes in the project. It will also assist in identifying any issues as they arise.

UNDP and Water Agencies will be responsible for advisory support and extensions services to local beneficiaries along with being responsible for distributing material inputs and providing technical training and backstopping in the implementation of programme activities.

### **Reporting**

Records of all consultations are to be kept and reported on monthly basis.

The UNDP must be notified in the event of any individual or community complaint or dissatisfaction and ensure the Grievance Redress Mechanism is complied with.



<b>Table 18: Social Management Measures</b>				
<b>Issue</b>	<b>Control activity (and source)</b>	<b>Action timing</b>	<b>Responsibility</b>	<b>Monitoring &amp; reporting</b>
SM1: Changes in land use resisted by community	SM 1.1: Carry out community consultation on the purpose and benefits of making changes to land use	Pre-construction	Water Agencies	Maintain records
	SM 1.2: Get community buy-in on any change of land use	Pre-construction	Water Agencies	Maintain records
	SM 1.3: Ensure compliance with the Grievance Redress Mechanism process	Entire construction and operation phase	Water Agencies	Maintain records
SM2: Public nuisance caused by construction/operation activities (e.g., noise, dust etc.)	SM 2.1: Carry out community consultation prior to undertaking activities	Pre-construction	Water Agencies	Maintain records
	SM 2.2: Implement appropriate management plans (refer to Noise, Air, ESCP, and Waste sections of the ESMF)	Construction and operation	Site Supervisor and UNDP	Daily and maintain records
	SM 2.3: Ensure compliance with the Grievance Redress Mechanism process	All phases	UNDP	Maintain records
SM3: Gender and SEAH issues	SM 3.1: Implement Gender Action Plan to assist the empowerment of women and children and improve equity across the project	All phases	All participants	Maintain records
	SM3.2: Implement SEAH Action Plan (Appendix 2) to reduce SEAH risks	All phases	As per Plan	Maintain records
SM4: Labor and working conditions	SM4.1: All contracts and working conditions are to be inline with relevant legislation eg Labor Law and in compliance with UNDP SES Standard 7	Pre and during construction Construction	Water Agencies	Maintain records
<b>Issue</b>	<b>Control activity (and source)</b>	<b>Action timing</b>	<b>Responsibility</b>	<b>Monitoring &amp; reporting</b>
SM4: Labour and working conditions	SM4.2: Terms and conditions of employment – written labour management procedures. Workers to be advised of conditions of their employment.	Construction	Contractor / Water Agencies	Maintain records



	SM4.3: Employment to be based on non-discrimination and equal opportunity	Construction	Contractor / Water Agencies	Maintain records
	SM4.4: Workers to be allowed the freedom of association and recognition of the right to collective bargaining	Construction	Contractor / Water Agencies	Maintain records
	SM4.5: No forced or child labor	Construction	Contractor / Water Agencies	Maintain records
	SM4.6: The safety and health of workers to be promoted. Appropriate PPE and training to be provided.	Construction	Contractor / Water Agencies	Maintain records
SM5: Community Safety	SM5.1: Safety and health of community to be protected during construction e.g. traffic management, use of barricades, noise protection etc.	Construction	Contractor	Maintain records
	SM5.2: Waste management procedures to be implemented to protect community and environment	Construction	Contractor	Maintain records
	SM5.3: Hazardous goods movement, storage and disposal to ensure community safety and compliance with law	Construction	Contractor	Maintain records





## Archaeological and Cultural Heritage

### Performance Criteria

The following performance criteria are set for cultural heritage issues related to the project:

- a. There will be no impact on any important Archaeological, Indigenous and/or Cultural Heritage sites;
- b. Manage any specific sites of important Archaeological, Indigenous and/or Cultural significance (significant sites);
- c. Work with the village communities to identify any potential areas of cultural significance (uses and physical form) during the construction phase of the project.
- d. Monitoring

Local stakeholders and community members have a key role to play in the implementation and monitoring of the project.

Consultation with stakeholders will continue. This will help ensure that stakeholders continue to be aware of the project, its progress and any changes in the project. It will also assist in identifying any issues as they arise.

UNDP will be responsible for advisory support and extensions services to local beneficiaries along with being responsible for distributing material inputs and providing technical training and backstopping in the implementation of programme activities.

### Reporting

Records of all consultations are to be kept and reported on monthly basis.

**Table 19: Archaeological and Cultural Heritage**

Issue	Control activity (and source)	Action timing	Responsibility	Monitoring & reporting
CH1: Damage or disturbance to known Archaeological, or Cultural Heritage	CH1.1: Confirm presence/absence of any cultural heritage in or near the construction areas.	Pre construction	Contractor	Maintain records
	CH1.2: If cultural heritage found to be present, a cultural heritage management plan may need to be prepared to ensure that area is avoided/that cultural heritage is protected.			
CH2: Chance Find during the earthwork disturbances and land clearing activities	CH2.1: Should there be a Chance Find, immediately cease work within the area that the site has been observed and implement the Chance Finds Procedure (Appendix 3).	During construction	Contractor	Daily, maintain records and immediately notify UNDP and Water Agencies of any find

## Unexploded Ordinance

### Performance Criteria

1. The following performance criteria are set for unexploded ordinance issues related to the project:

- a. No works will be undertaken without the area being assessed for potential UXO;
- b. No workers or community members will be put at risk as a result of UXO;



- c. Authorities will be immediately notified and take charge of the management of any UXO discovered.
2. Stakeholders, particularly local communities, will be advised of proposed works, testing and any UXO discovered so that they are appropriately prepared to take actions as advised.

### Reporting

3. Records of all surveys and discoveries related to UXO are to be kept and reported on monthly basis.

**Table 20 Unexploded Ordinance Management Measures**

Issue	Control activity (and source)	Action timing	Responsibility	Monitoring & reporting
UXO1: Presence of unexploded ordinance	UXO1.1: Updated magnetometry survey to confirm presence/absence of UXO	Prior to commencement of finalized dredge planning	Contractor	Survey report
	WT1.2: The Contractor's work method will detail the way in which they will safely handle and dispose of UXO if any UXO are encountered during construction.	Pre-construction	Contractor	Maintain records

### Emergency Management Measures

In the event of actions occurring, which may result in serious health, safety and environmental (catastrophic) damage, emergency response or contingency actions will be implemented as soon as possible to limit the extent of environmental damage.

The delivery organisation will need to incorporate emergency responses into the project complying with the requirements under the Occupational, Health and Safety Policy of the delivery organisation and the relevant legislation.

### Performance Criteria

The following performance criteria are set for the construction of the projects:

- a. no incident of fire outbreak;
- b. no failure of water retaining structures;
- c. no major chemical or fuel spills;
- d. no preventable industrial or work related accidents;
- e. provide an immediate and effective response to incidents that represent a risk to public health, safety or the environment; and
- f. minimize environmental harm due to unforeseen incidents.

### Monitoring

An emergency response monitoring program has been developed for the projects (Table 21). The program is subject to review and update at least every two months from the date of issue. Importantly, visual inspections will be conducted by Field Officer daily with reporting to Water Agencies and UNDP staff on a weekly basis (minimum) noting any non-conformances to this ESMF.

### Reporting

The Water Agency and UNDP staff must be notified immediately in the event of any emergency, including fire or health related matter including those that have resulted in serious environmental harm.

**Table 21 Emergency Management Measures**

Issue	Control activity (and source)	Action timing	Responsibility	Monitoring & reporting
E1. Fire and Emergency management and prevention strategies implemented	E1.1: Flammable and combustible liquids bunding/storage areas to be designed in accordance with appropriate international standards	Pre and during construction	Contractor	Daily and maintain records
	E1.2: Fire extinguishers are to be available on site	During construction	Contractor	Daily and maintain records
	E1.3: No open fires are permitted within the project area	During construction	Field Officer	Daily and maintain records
	E1.4: Communication equipment and emergency protocols to be established prior to commencement of construction activities.	Pre-Construction and Construction	Contractor	Maintain records
	E1.5: Train all staff in emergency preparedness and response (cover health and safety at the work site). Coordinate with NDMO.	During construction	Field Officer	Daily and maintain records
	E1.6: Check and replenish First Aid Kits	During construction	Field Officer	Daily and maintain records
	E1.7: Use of Personal Protection Equipment	During construction	All Personnel	Daily and maintain records



## XI. BUDGET FOR ESMF IMPLEMENTATION

The budget for the project includes an estimate of \$558,280 for implementation of the ESMF and associated safeguards. Table 22 presents a high-level breakdown of the anticipated costs.

**Table 22 Budget estimate for ESMF implementation**

Item	Cost covered by GCF	Costs covered by Water Agencies <sup>[1]</sup>
ESMF Updating and Auditing	\$10,000	
Guidelines for nature-friendly stabilization of the riverbed and riparian areas and riparian areas	\$20,000	
Strategic Environmental Assessment to assess cumulative and synergistic impacts of proposed planning and policy changes on river-basin management in Bosnia and Herzegovina	\$40,000	
Site specific assessments (based on the applicable regulatory requirements in the B&H and UNDP SES Policy)	\$100,000	\$60,000
General ESMF Expenses	\$20,000	
Monitoring of nature-based solutions	\$15,000	
Water Quality Monitoring (5 x handheld water probes)		\$60,000
Sediment Sample Field Testing (monitoring to be undertaken over five years)		\$90,000
Erosion, Drainage and Sediment Control		\$40,000
Rehabilitation / revegetation		
Stakeholder Engagement Plan implementation	\$82,640	
Grievance Redress Mechanism	\$10,000	
Implementation of Gender Action Plan and SEAH	\$10,640	
<b>Total</b>	<b>\$ 308,280</b>	<b>\$250,000</b>

<sup>[1]</sup> These are part of the normal responsibilities of the Water Agencies that can only be undertaken by the Water Agencies.



## **Annex J: Stakeholder Engagement Plan**

### **1 INTRODUCTION**

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#### **1.1 Overview of the Project**

1. The project will reduce vulnerability to floods across B&H (pluvial, fluvial and torrential flooding) through improved climate information and establishment of flood forecasting and early warning systems. Improved generation and use of climate information will enable sound decision making and investment into climate resilient flood risk reduction measures.
2. To achieve this the project will pursue the following outputs:
  - a. Output 1: Fully integrated impact-based Flood Forecasting and EWS facilitates timely preparation and response
  - b. Output 2: Non-structural flood risk reduction measures and nature-based solutions mainstreamed in sectoral policies and plans and effectively contribute to protection of people and livelihoods from climate-induced flood risk
  - c. Output 3: Climate-proof flood protection measures scaled-up through new and improved national and local investment frameworks increasing resilience of the most vulnerable groups to climate induced flooding. The project is expected to benefit an estimated 924,453 direct beneficiaries.

##### **1.1.1 Purpose of this Document**

3. The purpose of Stakeholder Engagement Plan (SEP) is the long-term sustainability of the project achievements, based on transparency and the effective participation of the key stakeholders. The stakeholder management plan is used for: planning the engagement of stakeholders, developing strategies to reduce or eliminate resistance, valuing local knowledge and experience and creating strategies to increase sharing, support and buy-in. Because planning for stakeholder management generates activities, this plan becomes an input to other subsidiary plans.
4. The approach is based on the principles of fairness and transparency in selection of stakeholders, ensuring consultation, engagement and empowerment of relevant stakeholders comprehensively for better coordination between them from planning to monitoring and assessment of project interventions; access of information and results to relevant persons; accountability of stakeholders; implementing grievances redress mechanism and ensuring sustainability of project interventions after its completion.



## 2 REGULATIONS AND REQUIREMENTS

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### 2.1 UNDP requirements

5. UNDP is committed to meaningful, effective, and informed stakeholder engagement in the design and implementation of all UNDP projects. UNDP's commitment to stakeholder engagement arises from internal policies, procedures, and strategy documents as well as key international human rights instruments, principles, and numerous decisions of international bodies, particularly as they relate to the protection of citizens' rights related to freedom of expression and participation. UNDP also follows the UN Statement of Common Understanding on Human Rights-Based Approaches to Development Cooperation which provides for *"Participation and Inclusion: Every person and all peoples are entitled to active, free and meaningful participation in, contribution to, and enjoyment of civil, economic, social, cultural and political development in which human rights and fundamental freedoms can be realized."*<sup>49</sup>
6. In summary, the key UNDP Social and Environmental Standards (SES) stakeholder engagement requirements are<sup>50</sup>:
  - Ensure meaningful, effective, informed participation of stakeholders in the formulation and implementation of UNDP Programmes and Projects, providing stakeholders opportunities to express their views at all points in the Project decision-making process on matters that affect them. (SES, Part C, paras. 18, 20).
  - Conduct stakeholder analysis and engagement in a gender-responsive, culturally sensitive, non-discriminatory and inclusive manner, identifying potentially affected vulnerable and marginalized groups and providing them opportunities to participate (SES, Part C, para. 18).
  - Develop appropriately scaled Stakeholder Engagement Plans, with level and frequency of engagement reflecting the nature of the activity, magnitude of potential risks and adverse impacts, and concerns raised by affected communities (SES, Part C, para. 21).
  - Meaningful, effective, and informed consultation processes need to be free of charge and meet specified criteria, including free of intimidation and external manipulation; initiated early and iterative; inclusive; gender and age responsive; culturally appropriate and tailored to language preferences; and based on timely disclosure of relevant, accessible information regarding the project and its social and environmental risks and impacts (SES, Part C, para. 20).
  - Include differentiated measures to allow effective participation of disadvantaged or vulnerable groups, including persons with disabilities (SES, Part C, para. 20).
  - Undertake measures to ensure effective stakeholder engagement occurs where conditions for inclusive participation are unfavourable (SES, Part C, para. 18).
  - Document consultations and report them in accessible form to participants and the public (SES, Part C, paras. 20, 28).
  - Ensure early and iterative meaningful stakeholder engagement throughout the assessment and management of potential social and environmental risks and impacts (SES, Part C, para. 16).
  - Ensure that stakeholders who may be adversely affected by the project can communicate concerns and grievances through various entry points, including when necessary, an effective project-level grievance mechanism, and also UNDP's Stakeholder Response Mechanism and Social and Environmental Compliance Unit (SES, Part C, paras. 23-26, 37).

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<sup>49</sup> Available at <http://hrbaportal.org/the-human-rights-based-approach-to-development-cooperation-towards-a-common-understanding-among-un-agencies>.

<sup>50</sup> UNDP (2020), Guidance Note – UNDP Social and Environmental Standards – Stakeholder Engagement



- For projects that affect rights, lands, territories, resources, and traditional livelihoods of indigenous peoples, ensure meaningful consultations and free, prior informed consent (FPIC) (SES, Part C, para. 22; SES, Standard 6, para. 10).
- For projects that may involve physical or economic displacement, ensure activities are planned and implemented collaboratively with meaningful and informed participation of those affected (SES, Standard 5).
- Provide ongoing reporting to affected communities and individuals for projects with significant adverse social and environmental impacts (SES, Part C, para. 34).
- Seek to identify, reduce and address the risk of retaliation and reprisals against people who may seek information on and participation in project activities, express concerns and/or access project-level grievance redress processes/mechanisms or UNDP's Stakeholder Response Mechanism or Social and Environmental Compliance Unit (SES, Part C, para. 27).
- Ensure that stakeholder analysis and engagement are conducted in a gender-responsive, culturally sensitive, non-discriminatory and inclusive manner, identifying potentially affected vulnerable and marginalized groups and providing them opportunities to participate. (SES, Part C, para. 18).

## **2.2 GCF requirements**

7. GCF seeks to ensure the greatest degree of transparency in all its activities through the effective dissemination of information to stakeholders and the public at large. Recognising the need to ensure public access and stakeholder participation, GCF sets out the Information Disclosure Policy (IDP) which outlines the information that is made available to the public either as a routine matter or upon request. The IDP requires GCF to presume the disclosure of information relating to GCF and its funding activities.

### **2.2.1 Information Disclosure**

8. The GCF Information Disclosure Policy operationalizes its commitment by ensuring transparency, public access to information and stakeholder participation in all its activities. The Information Disclosure Policy requires that relevant information, including with respect to environmental and social issues, is made available to the affected and potentially affected communities and external stakeholders.
9. GCF require that all additional environmental and social safeguards documents be disclosed. These documents may include a suite of assessment and management instruments, such as resettlement action plans and policy frameworks, indigenous peoples' plans, and planning frameworks, gender assessments and gender action plans, and environmental and social due diligence and audit reports. These documents will complement the environmental and social reports or core safeguards instruments – and should be disclosed in the same manner and timeframe as the core instruments.
10. GCF require accredited entities, including intermediaries, to ensure the effective engagement of communities and individuals, including transboundary, vulnerable and marginalised groups and individuals that affected or potentially affected by the activities proposed for GCF financing. The disclosure of information, meaningful consultation, and informed participation is to be designed and undertaken in a manner that takes into consideration the risks and impacts, including where appropriate transboundary impacts as well as opportunities to enhance environmental and social outcomes of the proposed Environmental and Social Policy activities, starting from the design and development of activities and will continue throughout the lifecycle of the activities.



### 2.2.2 Stakeholder Engagement

11. GCF requires that culturally appropriate, meaningful consultation/discussions are undertaken throughout the life cycle of activities, with information provided and disclosed in a timely manner, in an understandable format, in appropriate local languages, gender inclusive and responsive, free from coercion, and incorporates the views of stakeholders in the decision-making process. The processes should pay particular attention to vulnerable groups and to conducting consultations / sharing sessions in a manner that does not put vulnerable individuals and groups at risk.

### 2.2.3 Grievance Redress Mechanisms (GRM)

12. GCF requires that accredited entities inform the communities affected, or likely to be affected, by the GCF-financed activities about the grievance and redress mechanisms at all three levels, at the earliest opportunity of the stakeholder engagement process and in an understandable format and in all relevant languages.
13. At the GCF level, the independent Redress Mechanism will address the grievances and complaints filed by persons, groups of persons or communities or on their behalf by governments or a representative, duly authorised to act in such a capacity, who may be or have been affected by the adverse impacts including transboundary impacts of the projects, in connection to the GCF-financed activities. In the event of a complaint being filed with the independent Redress Mechanism, the accredited entities will cooperate with the independent Redress Mechanism and GCF.

## 2.3 GoB&H requirements For Construction

14. Local stakeholders' engagement is required by Law on Construction in both entities as well as cantons. As per Law on Construction<sup>51</sup>, all types of physical planning documentation (including water management objects), must be publicly displayed for period of at least 30 days (Article 47, Law on Construction RS). As demonstrated by the following extract:

*(1) The holder of the preparation of the physical planning documents shall determine the draft physical planning document and the place, time and manner of exposing the physical planning document to public inspection.*

*(2) The duration of public insight shall be determined by the decision referred to in Article 40 of this Law and shall last at least 30 days for all spatial planning documents, which shall be taken into account by the holder of preparation, depending on the importance and specifics of physical planning documents.*

*(3) The public and owners of real estate in the area for which the implementing spatial planning document is issued shall be informed about the place, time and manner of presenting the draft spatial planning document to the public by an announcement published in at least two media at least twice. the first notice shall be published eight days before the beginning of the public inspection, and the second 15 days from the beginning of the presentation of the draft spatial planning document for public inspection.*

*(4) The announcement referred to in paragraph 3 of this Article shall contain:*

*a) place, date, beginning and duration of public insight into the spatial planning document,*

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<sup>51</sup> <https://www.paragraf.ba/propisi/republika-srpska/zakon-o-uredjenju-prostora-i-gradjenju.html>





*b) place and date of one or more public presentations,*

*c) place and time of providing explanations of the proposed planning solutions to the interested persons by the representatives of the developer and the holder of the preparation of the spatial planning document,*

*g) deadline by which proposals, remarks and opinions on the draft spatial planning document can be sent.*

*(5) The draft spatial planning document shall be presented:*

*a) in the premises of the holder of the preparation of the spatial planning document and on its website,*

*b) in the premises of the holder of the spatial planning document,*

*c) in the premises where expert discussions are held or in other premises (cultural centers, lobbies of public institutions, etc.) and*

*d) in the premises of local communities, in the case when the draft implementing documents of spatial planning are presented to the public.*

*(6) The holder of the spatial planning document shall be obliged to inform the public at each place where the draft spatial planning document is displayed that more detailed information, explanations and assistance in formulating remarks can be obtained from the holder of the preparation and the holder of the drafting document.*

*(7) Remarks, proposals and opinions on the draft document shall be entered in a notebook with numbered pages, located in the room where the draft is presented or submitted in written or electronic form to the holder of the spatial planning document who is obliged to forward them to the holder. spatial planning documents.*

*(8) The holder of the preparation of documents referred to in Article 26, item a) of this Law shall be obliged to organize public presentations of draft documents by areas.*

*(9) The draft document referred to in paragraph 8 of this Article shall be made public at the seat of local self-government units and comments, proposals and suggestions of interested persons shall be collected there, on the basis of which an opinion on the draft document shall be prepared and sent to the holder.*

***(10) If the local self-government units do not submit the opinion referred to in paragraph 9 of this Article within eight days from the day of closing the public inspection, it shall be considered that there are no objections to the offered planning solutions.***

15. After that period, a public hearing must be organized in local community within period of 30 days upon closure of public display (article 48, Law on Construction RS):

*1) The developer is obliged to consider all remarks, proposals and opinions submitted during the public insight and before determining the proposal of the spatial planning document, to take a position on them, and to submit a reasoned position in writing to the holder of preparation and persons who submitted their proposals. remarks and opinions.*

*(2) The proposal of the spatial planning document shall be determined on the basis of the draft that has been published and shall be based on the remarks, proposals and opinions on that draft.*

*(3) Decisions from the draft document may not be changed in the proposal of the spatial planning document, except for those on which a grounded remark, proposal or opinion has been made.*



*(4) The attitude of the developer towards remarks, proposals and opinions shall be considered at a public hearing, to which representatives of the developer, developer and bodies and legal entities referred to in Article 42, paragraph 3 of this Law, and members of the plan council shall be invited.*

*(5) The public hearing referred to in paragraph 4 of this Article must be organized within 30 days from the day of closing the public inspection.*

*(6) The holder of the preparation shall publish a public invitation for a **public hearing** in at least one daily newspaper available on the territory of the entire Republic three days before and on the day of the hearing, which may be attended by all interested persons.*

***(7) If the public hearing referred to in paragraph 4 of this Article is not attended by authorized expert representatives of bodies and legal entities referred to in Article 42, paragraph 3 of this Law, they shall be deemed to have accepted the proposed document.***

### 3 PROJECT STAKEHOLDERS

16. The SEP has been prepared to promote the implementation of a structured approach in strengthening knowledge, awareness and understanding among and between stakeholders from the grassroots village and commune level to the national line ministries and policy makers as well as the global community.

#### 3.1 Stakeholder Analysis

17. The SEP was prepared through the identification of the stakeholders that would be involved as partners in the project. Stakeholders at cantonal, municipal, and local levels including relevant agencies, CSOs and local communities and others would be partners in project implementation.
18. Table 23 lists key government agencies, research institutions, non-government organizations (NGOs) and civil society organizations, and provides a general description of their roles, responsibilities, and sought involvement in the project.

**Table 23 Key Stakeholders, their Roles, Responsibilities, and Project Involvement**

Stakeholder	Role in the project
B&H Ministry of Foreign Trade and Economic Relations	28) GCF UNFCCC focal point for B&H 29) State level 30) Responsible for coordinating policies and measures in the field of the environment, including water management 31) Coordination, advocating 32) Member of Project Board
Federal Ministry of Agriculture, Water-Management, and Forestry	33) Entity level 34) Responsible for coordinating policies and measures in agriculture, water-management and forestry 35) Member of Project Board
RS Ministry of Agriculture, Forestry, and Water Resources	36) Entity level 37) Responsible for coordinating policies and measures in land use, forestry, and water resources 38) Member of Project Board



RS Ministry of Spatial Planning, Construction, and Ecology	<p>39) UNFCCC focal point for B&amp;H</p> <p>40) Responsible for environmental policies and measures in RS, including environmental measures that may mitigate CC. Responsible for integrative planning and spatial planning in RS.</p>
Federal Ministry of Environment and Tourism	<p>41) Responsible for coordinating entity-level policies and measures in the environmental area (environmental conservation, preparation of environmental policies and strategies, monitoring of environmental factors)</p>
Ministry of Security of B&H	<p>42) State level</p> <p>43) Responsible for implementation of international obligations and cooperation in matters relating to civil protection, coordination of activities of entity services for civil protection in B&amp;H, and harmonization of their plans for cases of natural or other disasters striking B&amp;H territories, as well as issuance of agenda for protection and rescue</p>
Water Agency for Sava River Basin	<p>44) Management of Sava River basin (within FB&amp;H),</p> <p>45) Responsible for data collection and distribution, water monitoring (hydrology and quality), preparation of Water management plans and plans for prevention and reduction of harmful impacts (flood, drought, erosion), preparation of legislation and policies and their implementation, projects implementation, implementation of flood risk management measures</p>
Public Institution Waters of Srpska	<p>46) Management of water resources within RS Entity (both Sava and Adriatic River basins)</p> <p>47) Responsible for data collection and distribution, water monitoring (hydrology and quality), preparation of Water management plans and plans for prevention and reduction of harmful impacts (flood, drought, erosion), preparation of legislation and policies and their implementation, projects implementation, implementation of flood risk management measures</p>
Water Agency for Adriatic River Basin	<p>48) Management of Adriatic River basin (within FB&amp;H),</p> <p>49) Responsible for data collection and distribution, water monitoring (hydrology and quality), preparation of Water management plans and plans for prevention and reduction of harmful impacts (flood, drought, erosion), preparation of legislation and policies and their implementation, projects implementation, implementation of flood risk management measures</p>
Hydro-meteorological Institute of RS	<ul style="list-style-type: none"> <li>○ Entity body</li> <li>○ Collects climatic meteorological and hydrological data necessary for studying climate variability, for trend analysis, and for long-run modelling.</li> <li>○ Conducts modelling and participates in WMO research programs.</li> </ul>
Hydro-meteorological Institute of F B&H	<ul style="list-style-type: none"> <li>○ Entity body</li> </ul>



	<ul style="list-style-type: none"> <li>○ Collects climatic meteorological and hydrological data necessary for studying climate variability, for trend analysis, and for long-run modelling.</li> <li>○ Conducts modelling and participates in WMO research programs.</li> </ul>
RS Civil Protection	<ul style="list-style-type: none"> <li>○ Entity body -RS</li> <li>○ Coordinate and manage work of civil protection units</li> <li>○ Develop of the programme of protection and rescue for natural and other disasters</li> <li>○ Organise and coordinate implementation of protection and rescue measures, related to natural and other disasters</li> <li>○ Monitoring, reporting and alert on emergency situations</li> <li>○ Vulnerability assessment</li> <li>○ Trainings and capacity building on civil protection</li> </ul>
Federal Civil Protection	<ul style="list-style-type: none"> <li>○ Entity body- FB&amp;H</li> <li>○ Coordinate and manage work of civil protection units in RS</li> <li>○ Develop of the programme of protection and rescue for natural and other disasters</li> <li>○ Organise and coordinate implementation of protection and rescue measures, related to natural and other disasters</li> <li>○ Monitoring, reporting and alert on emergency situations</li> <li>○ Vulnerability assessment</li> <li>○ Trainings and capacity building on civil protection</li> </ul>
Agency for Insurance (state level)	<ul style="list-style-type: none"> <li>○ State level agency</li> <li>○ Assures unified implementation of insurance regulations between entities</li> </ul>
Insurance agencies (Insurance Agency of RS, Insurance Agency FB&H)	<ul style="list-style-type: none"> <li>○ Entity level agencies</li> <li>○ Approves insurance products</li> <li>○ Develops insurance related regulations</li> <li>○ Monitors disbursements of insurance companies' funds</li> </ul>
HPP	<ul style="list-style-type: none"> <li>○ Private and state-owned companies for el. power production</li> <li>○ Alteration of hydrological regime to support FRM</li> <li>○ HM monitoring-integration in national network</li> <li>○ With technical support HPP sector enable more climate resilient operations</li> </ul>
Associations of Insurance Companies of (one for RS, one for FB&H)	<ul style="list-style-type: none"> <li>○ NGO</li> <li>○ Strengthens insurance market</li> <li>○ Provides professional services to insurance companies</li> <li>○ Promotes and harmonize cooperation between insurance companies</li> </ul>
Local Governments	<ul style="list-style-type: none"> <li>○ Municipal bodies</li> <li>○ Management of public functions/ activities within local communities</li> <li>○ Preparation of development plans and programmes</li> <li>○ Organization and management of local civil protection</li> <li>○ Spatial planning</li> <li>○ Local economic development</li> <li>○ Implementation of local FRM measures</li> <li>○ Implement loss/damage assessment at local level</li> <li>○ Provide local information and knowledge</li> </ul>



	<ul style="list-style-type: none"> <li>○ Ensure local participation</li> </ul>
Association of Cities and Municipalities of RS	<ul style="list-style-type: none"> <li>○ NGO- RS</li> <li>○ Advocacy and firm representation of the municipal interests</li> <li>○ Coordinate work of municipalities and cities in RS</li> <li>○ Promote local development and enable implementation of projects/investments</li> <li>○ Support in the consultative legislative processes,</li> <li>○ Promote protection of common interests and cooperation with national and international associations, organizations and institutions of government.</li> </ul>
Association of Cities and Municipalities of FB&H	<ul style="list-style-type: none"> <li>○ NGO- RS</li> <li>○ Advocacy and firm representation of the municipal interests</li> <li>○ Coordinate work of municipalities and cities in RS</li> <li>○ Promote local development and enable implementation of projects/investments</li> <li>○ Support in the consultative legislative processes,</li> <li>○ Promote protection of common interests and cooperation with national and international associations, organizations and institutions of government.</li> </ul>
NGOs (environmental, social inclusion and protection organizations-for returnees and displaced persons, vulnerable groups, minorities, etc.)	<ul style="list-style-type: none"> <li>○ NGOs</li> <li>○ Provide information, training, and awareness-raising</li> <li>○ Ensure local participation and involvement of vulnerable groups</li> </ul>
Smallholder farmers, returnees, and displaced persons	<ul style="list-style-type: none"> <li>○ Innovators, Responsible Parties</li> </ul>
Private sector / Micro agricultural businesses	<ul style="list-style-type: none"> <li>○ Financial services provider,</li> <li>○ Implementation of adaptation measures</li> <li>○ Beneficiaries</li> </ul>
Faculties of Natural Sciences/Agriculture (Banja Luka and Sarajevo)	<ul style="list-style-type: none"> <li>○ Universities, research institutions</li> <li>○ Trainings, expert support</li> <li>○ Data and technical service provider</li> </ul>

### 3.1.1 Project Stakeholder Register

19. A Stakeholder Register will be created to form a database of stakeholders and their interest in the project—the register will be a “living document” that will be regularly updated throughout the life of the project as new stakeholders are identified.
20. The UNDP SES requirements on access to information is being met by maintaining and disclosing a public record of stakeholder engagement throughout the project cycle. Note, where it may be necessary to safeguard the identities of stakeholders, statistical information will be recorded and disclosed.



#### 4 STAKEHOLDER ENGAGEMENT PROGRAMME

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21. The stakeholder engagement programme has been developed to provide schedule of engagement activities and who is responsible for their delivery.
22. The purpose of the stakeholder engagement programme is to:
  - Develop partnerships with stakeholders
  - Provide stakeholders with updates on the project
  - Create an avenue for stakeholder feedback
  - Fulfil the requirements of GCF, UNDP and GoB&H
  - Help build knowledge and capacity within the stakeholder groups to assist with future projects
  - Provide a timeline of engagement activities and identify who will be responsible for their delivery.
23. The following consultation and consent processes are to be adopted as part of the project stakeholder engagement programme:
  - Identification of parties to the negotiation and decision-makers
  - Elaboration of the decision-making processes of the respective parties
  - The role if any of outside counsel and expertise, including e.g. a third party mediator/negotiator
  - Agreement on relevant time periods
  - Applicable community protocols that must be respected
  - Steps to guarantee an environment without coercion or duress
  - The format for benefit sharing discussions and arrangements
  - Sharing of information in meaningful, accessible, and culturally appropriate manner
  - Identification of other project activities or circumstances that will trigger additional consent processes
  - The format for documenting the agreement, conditions that attach, and/or other conclusions of the process.
24. Making use of the variety of knowledge management and communication tools, the project will serve to provide targeted support to strengthening knowledge, understanding and support at various levels to facilitate mainstreaming of biodiversity conservation issues at the local and landscape levels. Successful implementation of this component in the pilot BRs will create an enabling framework for replication and scaling up throughout the BR network in the country, supported by targeted project activities under Output 1.4.
25. The Project Board is recognized as a central point for project coordination and implementation. It will be comprised of key FRM state and entity level institutions and UNDP. As a representation body of government, private sector, academia and civil society it will provide guidance and timely technical advice to ensure project implementation at efficient and effective level . The Project Board represents main institutional mechanism for engagement of stakeholders. Institutions, members of PB will ensure timely and verifiable attainment of the project objective and outcomes.
26. Local stakeholders and community members will be mobilized to support implementation and maintenance of measures, socio economic assessment, development of policies, plans and mechanisms through participatory approach. Their involvement will be ensured through mobilization of local and community consultative/work groups. The key role of local stakeholders and community members is implementation and monitoring of the project activities.
27. Key stakeholders, local and international expert(s) engaged in support and/or collaboration of the project implementation, will also be involved in extensive consultations during inception phase and preparation of inception report, that will include detailed and adjusted work plans for each subcomponent (output) of the



project at the specific activity level and elaboration of the required resources and stakeholders to be involved for reaching the stated targets. Inception phase will be utilized for broad consultations with all stakeholders: government, institutions, private sector, NGOs, to communicate and inform stakeholders on their roles, expected contributions, communication channels and conflict resolution mechanisms to ensure understanding of roles, and responsibilities. Also, stakeholders will be involved in official project evaluations to support progress assessment and enable adaptive project management to address local needs and priorities to optimal level.

28. Education and awareness campaigns will target diverse stakeholders, from general public, specific expert groups, government representatives, selected local communities NGOs and vulnerable groups.
29. Table 24 summarises the key engagement activities and their target audiences, along with the mechanisms that will be used as part of the engagement to support the project Outcomes.



*Table 24 Stakeholder engagement activities to support Outcomes*

Project output	Activities	Stakeholder	Stakeholder Role	Means of Participation
1: Fully integrated impact-based Flood Forecasting and EWS facilitates timely preparation and response	1.1: Upgrade and expand the coverage of the hydrometric network for enhanced monitoring of climate variables.	a. Ministry of Agriculture, Water-Management and Forestry of Federation of B&H b. Ministry of Agriculture, Forestry and Water Resources of Republika Srpska, c. Water agency for Sava River Basin, d. Water Agency for Adriatic basin e. PI "Vode Srpske" f. RS HMI g. Federal HMI h. HPP	Key stakeholders for design and installation of hydrometric network, development of O&M plan and sector-specific climate risk information products for hydropower sectors Data providers, technical inputs	Participation at consultative meetings, and trainings Data provision, Project Board members
	1.2: Enhance climate-induced flood hazard, risk and vulnerability information for strategic risk management and sound decision making for climate induced flood management.	a. Ministry of Agriculture, Water-Management and Forestry of Federation of B&H b. Ministry of Agriculture, Forestry and Water Resources of Republika Srpska, c. Water agency for Sava River Basin, d. Water Agency for Adriatic basin e. PI "Vode Srpske" f. HPPs	Key stakeholders for developing hydrological modelling, torrents hazard modelling, HPPs and groundwater modelling in flood hazard, risk and vulnerability modelling and mapping Data providers, technical inputs	Participation at consultative meetings, and trainings Data provision Project Board members
	1.3: Develop an integrated impact-based centralized and community-based flood forecasting and early warning system.	a. Ministry of Agriculture, Water-Management and Forestry of Federation of B&H b. Ministry of Agriculture, Forestry and Water Resources of Republika Srpska, c. Water agency for Sava River Basin, d. Water Agency for Adriatic basin e. PI "Vode Srpske" f. HPP	Actively support and participate in development (planning and implementation) of community-based flood forecasting and early warning system and sector-specific FFEWS products for the agricultural and hydro power sectors. Involvement in capacity building planning. Data providers.	Participation at consultative meetings, and trainings  Data provision and active involvement in field implementation Project Board members
	1.4: Develop and implement protocols and SoPs on data generation, data	a. Ministry of Agriculture, Water-Management and Forestry of Federation of B&H b. Ministry of Agriculture, Forestry and Water Resources of Republika Srpska,	Key stakeholder for development of Communication Protocols, Codes of Conduct for FFEWS and	Participation at consultative meetings, and trainings Data provision





	management and communication for effective impact based FFEWS and flood risk management.	c. Water agency for Sava River Basin d. Water Agency for Adriatic basin e. PI "Waters of Srpska" f. RS HMI g. Federal HMI h. HPP i. RS Civil Protection j. Federal Civil Protection	centralised information system and knowledge sharing platform. Provide inputs and suggestions based on experience related to existing tools.	Project Board members
2: Non-structural flood risk reduction measures and nature-based solutions mainstreamed in sectoral policies and plans and effectively contribute to protection of people and livelihoods from climate-induced flood risk	2.1: Mainstream climate induced flood risk reduction into sectoral planning (agriculture, hydropower, critical infrastructure) and spatial planning.	a. Ministry of Foreign Trade and Economic Relations of B&H b. Ministry of Spatial Planning Civil Engineering of RS c. Federal Ministry of Environment and Tourism d. Ministry of Agriculture, Water-Management and Forestry of Federation of B&H e. Ministry of Agriculture, Forestry and Water Resources of Republika Srpska	Collaboration and support to enhance the existing legislative and regulatory FRM framework by mainstreaming climate-responsive flood risk management into sectoral planning for agriculture, forestry, environment, hydropower, critical infrastructure and spatial planning	Participation and facilitation of work groups, support assessment, data provision Project Board members
	2.2: Implement and mainstream new ecosystem-based flood risk reduction and climate change adaptation methods.	a. Water agency for Sava River Basin, b. Water Agency for Adriatic basin c. PI "Vode Srpske" d. HPP e. Target municipalities and Communities f. Local environmental monitoring companies/labs, NGOs	Collaboration in development of community based EbA to reduce the impact of torrential floods and collaborate in implementation of measures Target municipalities and communities as beneficiaries will provide data and opinions/feedback for detailed design (through CBOs or community representatives and through community surveys) Environmental monitoring of construction activities	Participate on trainings and consultative meetings and active involvement in measures implementation including field presence
	2.3: Codify and mainstream EbA solutions into policies	a. Ministry of Foreign Trade and Economic Relations of B&H	Support development of country-wide best-practice guidelines, technical specification, standards	Participate on trainings, consultative meetings and working groups



	and regulations and promote non-structural measures.	b. Ministry of Spatial Planning Civil Engineering of RS c. Federal Ministry of Environment and Tourism d. Ministry of Agriculture, Water-Management and Forestry of Federation of B&H e. Ministry of Agriculture, Forestry and Water Resources of Republika Srpska	and protocols for the application of EbA non-structural measures to be mainstreamed into policy, collaborate in capacity development in the identification, prioritisation, assessment appraisal, design and implementation of such solutions	Project Board members
	2.4: Review and strengthen institutional capacity and develop long-term institutional capacity development plans for climate resilient FRM.	a. Ministry of Foreign Trade and Economic Relations of B&H b. Ministry of Agriculture, Water-Management and Forestry of Federation of B&H c. Ministry of Agriculture, Forestry and Water Resources of Republika Srpska d. Water Agency for Adriatic basin e. PI "Waters of Srpska" f. RS HMI g. Federal HMI h. HPP	Active involvement in development of country-wide training programmes and curricula in the technical and practical areas of flood risk management for practitioners, decision-makers, communities, emergency responders and ensure their participation.	Participate on trainings, consultative meetings and working groups and raise awareness campaigns Project Board members
3: Climate-proof flood protection measures scaled-up through new and improved national and local investment frameworks increasing resilience of the most vulnerable groups to climate induced flooding	3.1: Develop investment framework for climate induced flood risk reduction and management.	a. Insurance agencies (Insurance Agency of RS, Insurance Agency FB&H) b. Agency for Insurance B&H c. Association of Insurance Companies of RS and Association of Insurance Companies for FB&H)	Provide inputs for development of Investment framework for climate induced floods risk reduction and management, engagement in development of risk transfer mechanisms and insurance models, implement climate risk financing	Participate at consultative meetings and work sessions, trainings
	3.2: Formulate multi-year climate resilient municipal investment plans and gender responsive community preparedness plans in selected municipalities (10-12) and in one canton.	a. Local governments b. RS Civil Protection c. Federal Civil Protection d. Association of Cities and Municipalities of RS e. Association of Cities and Municipalities of FB&H	Key partners and collaborators in development and implementation of municipal investment plans for climate resilient FRM in local communities as well as community preparedness plans	Appoint and manage local work groups, participate at work meetings and trainings



	<p>3.3: Implement climate-proof structural flood risk reduction and anti-erosion interventions in Vrbas, Una-Sana, Bosna and Drina River basins.</p>	<p>a. Ministry of Agriculture, Forestry and Water Resources of Republika Srpska  b. PI "Waters of Srpska"  c. Target municipalities and Communities  d. Local environmental monitoring companies/labs, NGOs</p>	<p>Key partner in implementation of priority structural flood risk reduction interventions, secure loan resources for implementation of structural measures, support development of climate proofed designs based on new climate risk information and design methods  Implementation of 10 structural measures  Target municipalities and communities as beneficiaries will provide data and opinions/feedback for detailed design (through CBOs or community representatives and through community surveys)  Environmental monitoring of construction activities</p>	<p>Implementing activities, participate in stakeholder consultations/workshops, trainings and monitoring of construction activities, etc.</p>
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## 5 RESOURCES AND RESPONSIBILITIES

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30. The PB will monitor the impacts of stakeholder engagement activities. Stakeholder engagement will form a regular agenda item at PMU meetings. Issues and risks identified will be recorded in the project Risk Register for ongoing monitoring and/or actioning as appropriate.
31. A summary of all stakeholder engagement activities will be collated and made available to the public e.g., in Annual Performance Report. The summary will contain the following information as a minimum:
  - Stakeholder engagement activities implemented
  - Dates and venues of engagement activities
  - Information shared with stakeholders
  - Outputs including issues addressed.
32. Outcomes of sharing sessions, consultations or responses to issues raised will be reported back to communities as per the Communications Strategy e.g., via the project website, newsletters, radio program, visits, meetings, etc.
33. This Stakeholder Engagement Plan will be reviewed and updated as necessary, at least annually.

## 6 GRIEVANCE MECHANISM

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34. As noted earlier, UNDP and GCF both have policies of information disclosure and transparency, this includes ensuring that stakeholders who may be adversely affected by the project can communicate their concerns and grievances. In line with these policies, a Grievance Redress Mechanism (GRM) has been prepared (refer also to the ESMP).
35. The Grievance Redress Mechanism has been designed to be problem-solving mechanism with voluntary good-faith efforts. The Grievance Redress Mechanism is not a substitute for the legal process. The Grievance Redress Mechanism will as far as practicable, try to resolve complaints and/or grievances on terms that are mutually acceptable to all parties. When making a complaint and/or grievance, all parties must always act, in good faith and should not attempt to delay and or hinder any mutually acceptable resolution.
36. The Grievance Redress Mechanism (GRM) is for people seeking satisfactory resolution of their complaints on the environmental and social performance of the Project.
37. Special attention will be placed on ensuring that grievances related to gender issues, such as GBV and SEAH, will be catered for, and that the grievance process will be designed in such a way that it facilitates access for women.
38. All complaints and/or grievances regarding social and environmental issues can be received either orally (to the field staff), by phone, in complaints box or in writing to the UNDP, relevant Water Agency or the Construction Contractor. A key part of the grievance redress mechanism is the requirement for the UNDP/PMU and construction contractor to maintain a register of complaints and/or grievances received at the respective project site offices. All complainants shall be treated respectfully, politely and with sensitivity, this includes specific procedures for SEAH (eg confidential reporting with safe and ethical documenting of SEAH cases). Every possible effort should be made by the UNDP/Water Agency/PMU and construction contractor to resolve the issues referred to in the complaint and/or grievance within their purview. However, there may be certain problems that are more complex and cannot be solved through project-level mechanisms. Such grievances will be referred to the Grievance Redress Committee. It would be responsibility of the Water Agencies to solve these issues through a sound / robust process.
39. The Grievance Redress Mechanism has been designed to ensure that an individual and/or group are not financially impacted by the process of making a complaint and/or grievance. The Grievance Redress Mechanism will cover any reasonable costs in engaging a suitably qualified person to assist in the preparation of a legitimate complaint and/or grievance. Where a complaint and/or grievance is seen to be ineligible, the Grievance Redress Mechanism will not cover these costs.

40. Information about the Grievance Redress Mechanism and how to make a complaint and/or grievance must be placed at prominent places for the information of the key stakeholders.

41. The Safeguards officer in the PMU will be designated as the key officer in charge of the Grievance Redress Mechanism. The Terms of Reference for these positions (as amended from time to time) will have the following key responsibilities:

- coordinate formation of Grievance Redress Committees before the commencement of constructions to resolve issues;
- act as the focal point at the PMU on Grievance Redress issues and facilitate the resolution of issues within the PMU;
- create awareness of the Grievance Redress Mechanism amongst all the stakeholders through public awareness campaigns;
- assist in redress of all grievances by coordinating with the concerned parties;
- maintain information on grievances and redress;
- monitor the activities of the Water Agencies on grievances issues; and
- prepare the progress for monthly/quarterly reports.

42. A multi-tiered Grievance Redress Mechanism structure has been developed to address all complaints and/or grievances in the project (Figure 14).

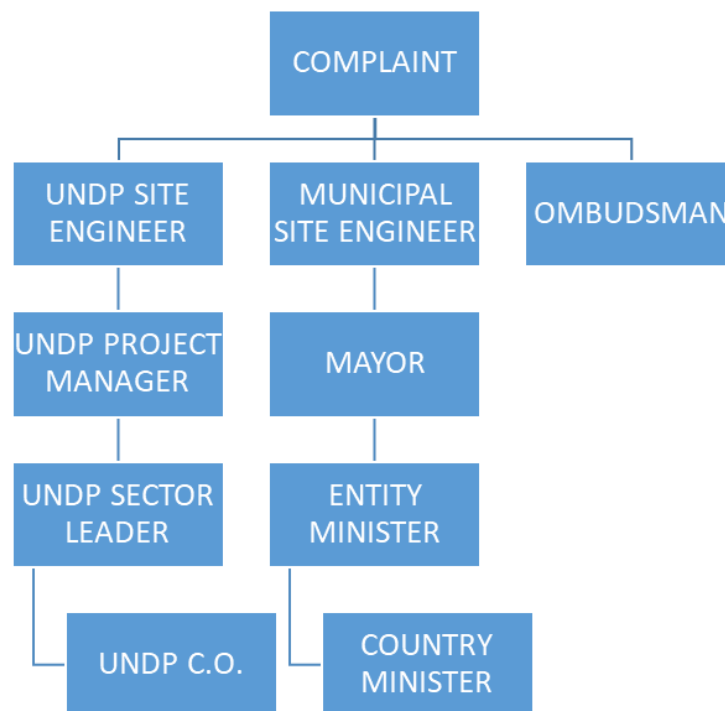


Figure 15 Multi-tiered GRM

43. The first-tier redress mechanism involves the receipt of a complaint and/or grievance at the project site and/or Mayoral level. The stakeholders are informed of various points of making a complaint and/or grievance (if any) and the PMU collect the complaints and/or grievances from these points on a regular basis and record them. This is followed by coordinating with the concerned people to redress the grievances. The designated Safeguards Officer of the PMU will coordinate the activities at the respective District level to address the grievances and would act as the focal point in this regard. The Authorised Community Officer of the Local Authority or in the absence of the Community Development Officer, any officer given the responsibility of this would coordinate with the Safeguards and Gender Manager of the PMU and the relevant Water Agency in redressing the grievances. The designated officer of the Local Authorities is provided with sufficient training in the procedure of redress to continue such systems in future.

44. The grievance can be made orally (to the field staff), by phone, in complaints box or in writing to the UNDP, Water Agency or the Construction Contractor. Complainants may specifically contact the Safeguards Officer and request confidentiality if they have concerns about retaliation. In cases where confidentiality is requested (i.e. not revealing the complainant's identity to UNDP, Water Agency and/or the Construction Contractor). In these cases, the Safeguards Officer will review the complaint and/or grievance, discuss it with the complainant, and determine how best to engage project executing entities while preserving confidentiality for the complainant.
45. As soon as a complaint and/or grievance is received, the Safeguards Officer would issue an acknowledgement. The Officer receiving the complaint and/or grievance should try to obtain relevant basic information regarding the grievance and the complainant and will immediately inform the Safeguards Officer in the PMU.
46. The PMU will maintain a Complaint / Grievance Redress register at the local government level. Keeping records collected from relevant bodies is the responsibility of PMU.
47. After registering the complaint and/or grievance, the Safeguards Officer will study the complaint and/or grievance made in detail and forward the complaint and/or grievance to the concerned officer with specific dates for replying and redressing the same. The Safeguards Officer will hold meetings with the affected persons / complainant and then attempt to find a solution to the complaint and/or grievance received. If necessary, meetings will be held with the concerned affected persons / complainant and the concerned officer to find a solution to the problem and develop plans to redress the grievance. The deliberations of the meetings and decisions taken are recorded. All meetings in connection with the Grievance Redress Mechanism, including the meetings of the Grievance Redress Committee, must be recorded. The Safeguards Officer for the Grievances Redress Mechanism will be actively involved in all activities.
48. The resolution at the first tier will normally be completed within 15 working days and the complaint and/or grievance will be notified of the proposed response through a disclosure form. The resolution process should comply with the requirements of the Grievance Redress Mechanism in that it should, as far as practicable, be informal with all parties acting in good faith. Further, the Grievance Redress Mechanism should, as far as practicable, achieve mutually acceptable outcomes for all parties.
49. Should the grievance be not resolved within this period to the satisfaction of the complainant, the grievance will be referred to the next level of Grievance Redress Mechanism. If the social safeguard and gender officer feels that adequate solutions can be established within the next five working days, the officer can decide on retaining the issue at the first level by informing the complainant accordingly. However, if the complainant requests for an immediate transfer to the next level, the matter must be referred to the next tier. In any case, where the issue is not addressed within 20 working days, the matter is referred to the next level.
50. Any grievance related to corruption, or any unethical practice should be referred immediately to the Office of the Attorney General of Bosnia and Herzegovina and the Office of Audit and Investigation within the UNDP in New York.
51. The Grievance Redress Committee formed at each entity level would address the grievance in the second tier.
52. The Safeguard Officer from the PMU will coordinate with the respective Entity Government in getting these Committees constituted for each Province and get the necessary circulars issued in this regard so that they can be convened whenever required.
53. The Terms of Reference for the Grievance Redress Committee are:
  - providing support to the affected persons in solving their problems;
  - prioritize grievances and resolve them at the earliest;
  - provide information to the PMU and UNDP on serious cases at the earliest opportunity;
  - Coordinate with the aggrieved person/group and obtain proper and timely information on the solution worked out for his/her grievance; and

- study the normally occurring grievances and advise PMU, National and District Steering Committee on remedial actions to avoid further occurrences.
54. The Grievance Redress Committee will hold the necessary meetings with the aggrieved party/complainant and the concerned officer and attempt to find a solution acceptable at all levels. The Grievance Redress Committee would record the minutes of the meeting.
55. Grievance Redress Committee will communicate proposed responses to the complainant formally. If the proposed response satisfies the complainant, the response will be implemented and the complaint and/or grievance closed. In cases where a proposed response is unsatisfactory to the complainant, the Grievance Redress Committee may choose to revise the proposed response to meet the complainant's remaining concerns, or to indicate to the complainant that no other response appears feasible to the Grievance Redress Committee. The complainant may decide to take a legal or any other recourse if s/he is not satisfied with the resolutions due to the deliberations of the three tiers of the grievance redress mechanism.
56. In addition to the project-level and national grievance redress mechanisms, complainants have the option to access two additional independent grievance mechanisms:
- UNDP Stakeholder Response Mechanism
  - GCF Redress Mechanism.
57. The UNDP Social and Environmental Compliance Unit investigates allegations that UNDP's Standards, screening procedure or other UNDP social and environmental commitments are not being implemented adequately, and that harm may result to people or the environment. The Social and Environmental Compliance Unit is housed in the Office of Audit and Investigations, and managed by a Lead Compliance Officer. A compliance review is available to any community or individual with concerns about the impacts of a UNDP programme or project. The Social and Environmental Compliance Unit is mandated to independently and impartially investigate valid requests from locally impacted people, and to report its findings and recommendations publicly.
58. The Stakeholder Response Mechanism offers locally affected people an opportunity to work with other stakeholders to resolve concerns, complaints and/or grievances about the social and environmental impacts of a UNDP project. Stakeholder Response Mechanism is intended to supplement the proactive stakeholder engagement that is required of UNDP and its Implementing Partners throughout the project cycle. Communities and individuals may request a Stakeholder Response Mechanism process when they have used standard channels for project management and quality assurance and are not satisfied with the response (in this case the project level grievance redress mechanism). When a valid Stakeholder Response Mechanism request is submitted, UNDP focal points at country, regional and headquarters levels will work with concerned stakeholders and Implementing Partners to address and resolve the concerns. Visit [www.undp.org/secu-srm](http://www.undp.org/secu-srm) for more details. The relevant form is attached at the end of the ESMP.
59. GCF also have their own Independent Redress Mechanism (IRM) which addresses complaints by people who believe they are negatively affected or may be affected by projects or programmes funded by the GCF. In the case of grievances in relation to affected indigenous peoples, the GCF Indigenous Peoples Specialist is also available. Further information and links to submit complaints can be found at: <https://irm.greenclimate.fund>.

## Annex K: Gender Analysis and Action Plan

<https://www.greenclimate.fund/document/gender-assessment-fp216-scaling-climate-resilient-flood-risk-management-bosnia-and>

### I. Introduction

The GCF project will address the increasing vulnerability of B&H communities and livelihoods, to intensified climate-induced hydro-meteorological flood-related disasters (pluvial, fluvial, and torrential). One of the root causes of increasing vulnerability and damages from floods is lack of quality climate data and flood forecasting and early warning system. As a result, the B&H authorities are unable to make qualified decisions and the affected population cannot effectively cope with the risk. Lack of climate information and risk knowledge increase the vulnerability and costs from flooding.

The GCF project will build resilience of B&H communities and livelihoods to climate-induced floods by catalyzing a nation-wide shift from ad hoc, a posteriori response approaches to holistic a priori flood risk management and adaptation approaches based on enhanced climate information, risk knowledge, flood forecasting and early warning.

The project will scale-up successful prototypes tested under the UNDP supported GEF financed project “Technology transfer for climate resilient flood management in Vrbas River Basin”.

This Gender Assessment and Gender Action Plan has been prepared for the submission to the Green Climate Fund with the proposal “Scaling up climate resilient flood risk management in B&H”. The assessment aims to provide an overview of the gender situation in Bosnia and Herzegovina, identify gender issues that may be relevant to the project context, to develop recommendations for advancing gender equality and women’s empowerment through the financed activities, and to inform the development of the project’s gender action plan. Individual needs and contexts in a disaster situation are examined through the lenses of vulnerability, visibility, and voices. The analysis follows social vulnerability approach and further defines whose voice is seen as the default one, and whose is the most visible perspective. The assessment was based upon available data from the Agency for Statistics of Bosnia and Herzegovina, RS and FB&H, studies conducted by the Government of Bosnia and Herzegovina, international organizations, civil society organizations and any other sources as UNDP Technology transfer for climate resilient flood management in Vrbas River Basin project and includes:

1. Undertaking a desktop review and aligning approaches in this proposal with the national priorities of Bosnia and Herzegovina.
2. Incorporating information and lessons learned from past studies and assessments on gender in Bosnia and Herzegovina from the Government of Bosnia and Herzegovina, the United Nations, civil society organisations, and multilateral development banks.
3. Conducting stakeholder consultations, including consultations with the Agency for Gender Equality of Bosnia and Herzegovina and the two gender centers (of Republika Srpska and Federation B&H), and engaging women/men/youth affected by the project and incorporating all points raised; and
4. Integrating gender considerations in the project indicators, targets, and activities, identifying women as leaders and decision-makers

While it is noted that the Gender Analysis and Action Plan should specifically identify and analyze the most critical issues relevant to the project and whether the needs and priorities of an equal number of women/girls/men/boys are being assessed, this Gender Analysis and Action Plan is based on available published and grey literature, consultation with civil society organizations participated in recovery project after the floods happened in 2014 in Bosnia and Herzegovina and Gender Agency of Bosnia and Herzegovina. Further an institutional gender analysis has been undertaken (although there will be need for deeper analysis and close cooperation during the project implementation). During project implementation, further stakeholder consultation will be undertaken to assess the components in relation to gender, age, and other relevant intersecting social and economic strata. There may be a need for the Gender Analysis and Action Plan to be modified depending on stakeholder consultation during the implementation of the project.



UNDP prioritizes gender mainstreaming as its main strategy to achieve gender equality and women's empowerment. Gender mainstreaming is the process of assessing any planned action in all areas and levels to determine the implication for women and men. It is a strategy for making women's, as well as men's, concerns and experiences an integral dimension of the design, implementation, monitoring and evaluation of projects so that women benefit equally. Gender mainstreaming aims to transform unequal social and institutional structures in order to make them profoundly responsive to gender, and, when realized, it ensures that both women and men benefit equally from the development process. It involves much more than simply adding women's participation to existing strategies and programmes. Special attention and action are often required to compensate for the existing gaps and inequalities that women currently face.

The [UNDP Gender Equality Strategy 2022-2025](#) is aligned with the 2030 Development Agenda and UNDP's Strategic Plan. The strategy recognizes gender equality as a human right as well as instrumental to the achievement of sustainable development. It considers women and men as active agents of change and development, not simply beneficiaries and vulnerable groups and it recognizes how working with men and boys is of critical importance to change gender norms and attitudes and achieve gender equality. The gender assessment and action plan developed for the submission to the Green Climate Fund with the proposal "Scaling up climate resilient flood risk management in B&H" has been prepared to meet the requirements and standards in UNDP's Gender Equality Strategy which meets or exceeds the requirements set forth by the Green Climate Fund Gender Policy and Gender Action Plan.

### **Short background on Bosnia and Herzegovina and on EU Accession Process**

Bosnia and Herzegovina is a potential candidate for EU membership. The Stabilization and Association Agreement between Bosnia and Herzegovina and the EU was ratified in 2011. In February 2016, the country applied for EU membership and in September 2016 the European Council invited the European Commission to submit its Opinion on the merits of Bosnia and Herzegovina's application. In December 2016, the Commissioner for European Neighborhood Policy and Enlargement Negotiations handed over a comprehensive Questionnaire covering all EU accession criteria. The country's consolidated answers were finalized in February 2018 and the answers handed over to the President of the European Commission. The Commission has prepared its "Opinion" report in 2019, based on the country's answers to the Questionnaire and follow up inquiries, dedicated peer reviews as well as Commission's consultations with international organizations and civil society. This interim report on Bosnia and Herzegovina provides an update on the situation in the country as well as on key developments on "fundamentals' first" areas: the rule of law and fundamental rights, public administration reform and economic development. According to the Opinion of EU the legislation and institutions on fundamental rights are largely in place; they should be fully implemented and substantially improved, including by harmonizing legislation within the country and aligning it with European standards, strengthening administrative capacity and providing adequate resources for the effective enforcement of fundamental rights. There are no countrywide strategies on human rights and on antidiscrimination. The equality of all citizens is not ensured. The laws on non-discrimination and on gender equality are in place but not sufficiently enforced, including on gender-based violence. Bosnia and Herzegovina does not have any policy areas where the country has a good level of preparation or is well advanced regarding its capacity to undertake the obligations stemming from EU membership. Overall, considerable adjustments of the legal and institutional framework and of administrative and implementation capacity are needed across all policy areas to align the legislation with the EU acquis and to implement it effectively.<sup>52</sup> Bosnia and Herzegovina continued to implement the Stabilization and Association Agreement and the meetings of the joint bodies under the agreement took place, except for the parliamentary committee which has yet to adopt its Rules of Procedures<sup>53</sup>.

### **Overview on Bosnia and Herzegovina Government Construction**

The current Constitution of Bosnia and Herzegovina came into existence in 1995 as an Annex to the General Framework Agreement for Peace in Bosnia and Herzegovina. While the General Framework Agreement for Peace in B&H ended the war and brought peace and stability, the extent to which the constitutional arrangement defined by its provisions is adequate under present circumstances, is widely debatable. According to the

<sup>52</sup> <https://ec.europa.eu/neighbourhood-enlargement/sites/near/files/20190529-bosnia-and-herzegovina-opinion.pdf>

<sup>53</sup> Bosnia and Herzegovina 2018. Report, <https://ec.europa.eu/neighbourhood-enlargement/sites/near/files/20180417-bosnia-and-herzegovina-report.pdf>

provisions of the Peace Agreement the State of Bosnia and Herzegovina is organized as a country composed of two entities with a broad set of competencies: the Federation of Bosnia and Herzegovina (FB&H) and Republika Srpska (RS). Some years after, an arbitration decision on the disputed areas of the country made Brčko District the third administrative unit of B&H. RS is a centralized entity whereas the FB&H is comprised of ten Cantons.

The State level comprises a tripartite rotating Presidency, a Council of Ministers (executive branch) and a bicameral Parliamentary Assembly consisting of a House of Representatives (lower chamber) and a House of Peoples (upper chamber). The judicial branch established by Dayton consists of a State-level Constitutional Court. The High Judicial and Prosecutorial Council, as well as a State Court and Prosecutor Office, were established later.

An international presence under UN auspices— the Office of the High Representative (OHR) — has been in place in Bosnia and Herzegovina since 1995. The Peace Implementation Council Steering Board has set objectives and conditions to be met for the closure of the OHR<sup>54</sup>. Since the decoupling of the European Union Special Representative's mandate from the OHR, the EU has reinforced its role in the country in line with the relevant Council Conclusions. The enhanced presence of the combined EU Special Representative and the EU Delegation in Bosnia and Herzegovina have continued to be instrumental in communicating EU priorities to citizens and in implementing the objectives of the EU agenda in key areas.

## II. Gender Equality/Inequality in Bosnia and Herzegovina

Before starting to analyze gender inequality in Bosnia and Herzegovina, it is important to make clear and to agree on the meaning of gender equality.

Gender equality refers to the equal rights, responsibilities and opportunities of women and men and girls and boys. Equality does not mean that women and men will become the same but that women's and men's rights, responsibilities and opportunities will not depend on whether they are born male or female. Gender equality implies that the interests, needs and priorities of both women and men are taken into consideration, recognizing the diversity of different groups of women and men. Gender equality is not a women's issue but should concern and fully engage men as well as women. Equality between women and men is seen both as a human rights issue and as a precondition for, and indicator of, sustainable people-centered development (UN Women, [OSAGI Gender Mainstreaming - Concepts and definitions](#))

The fundamental principle of human development is for people to enlarge their choices, to realize their potential, and to enjoy the freedom to lead lives they value or have reason to value. Equal opportunities in all spheres, for all people, women, and men alike, are at the heart of the human development. However, those options remain unequally distributed within and across societies and unfortunately many are still largely unavailable to women. Disadvantage and discrimination, lack of insights into what particularly affects women's lives, including health (physical and emotional), reinforced by social norms and values, institutions, and public policies, exist in every sphere of women's lives, manifested differently in different country settings. They limit women's capabilities, opportunities, and choices, resulting in less progress than men in terms of health, education, standard of living, empowerment, personal security, and other critical dimensions of human development. Thus, the full potential of many women's lives cannot reach optimal level and humanity as a whole does not reap its potentials (Issue papers, "Gender Equality in Human Development – Measurement Revisited", Human Development Report Office, UNDP June 2015).

According to the latest UNDP Human Development Report (2020), Bosnia and Herzegovina's HDI value for 2019 is 0.780— which ranks it at 73 out of 189 countries and territories. Between 2000 and 2019, Bosnia and Herzegovina's HDI value increased from 0.679 to 0.780, an increase of 14.9 percent. Bosnia and Herzegovina's progress in each of the HDI indicators shows that between 1990 and 2019, Bosnia and Herzegovina's life

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<sup>54</sup> See details on the OHR website ([www.ohr.int](http://www.ohr.int)) under '5+2 Agenda'

expectancy at birth increased by 6.5 years, mean years of schooling increased by 2.8 years and expected years of schooling increased by 2.2 years. Bosnia and Herzegovina's GNI per capita increased by about 737.8 percent between 1990 and 2019. Bosnia and Herzegovina's 2019 HDI of 0.780 is above the average of 0.753 for countries in the high human development group and below the average of 0.791 for countries in Europe and Central Asia. The inequality HDI (IHDI) introduced in 2010, is basically the HDI discounted for inequalities. The 'loss' in human development due to inequality is given by the difference between the HDI and the IHDI and can be expressed as a percentage. When discounted for inequality, Bosnia and Herzegovina's HDI falls to 0.667, a loss of 14.5 percent due to inequality in the distribution of the HDI dimension indices. This is above the average loss due to inequality for high HDI for Europe and Central Asia which is 11.9 percent.

With regard to Bosnia and Herzegovina, there can be no dispute that significant advances have been made in the realization of the principle of the equality of women and men, which is a result of activities taken by all parties (Gender institutional mechanisms, as well as citizens through civil society organizations) responsible for implementing the Law on Gender Equality in Bosnia and Herzegovina. Nonetheless, in spite of these positive changes, there are still a lot to be done.

Through the years, several indices have developed to quantify the concept of gender inequality. The United Nations Development Programme uses the Gender Inequality Index (GII) and Gender Development Index (GDI).<sup>55</sup> GI is a composite measure that shows inequality in achievement between women and men in reproductive health, empowerment, and the labour market while with a measures achievement in human development in three areas: health, education, and command over economic resources. The GDI considers the gender gaps on human development between men and women.

The Gender Development Index (GDI) based on the sex-disaggregated Human Development Index, defined as a ratio of the female to the male HDI is 0.937 for Bosnia and Herzegovina (female HDI = 0.753 and male HDI = 0.803). This is below the average for Europe and Central Asia, which is 0.953, and placing it in Group 3 – which comprises countries with medium equality in HDI achievements between women and men. The Gender Inequality Index (GII) reflects gender-based inequalities in three dimensions – reproductive health, empowerment, and economic activity. Reproductive health is measured by maternal mortality and adolescent birth rates; empowerment is measured by the share of parliamentary seats held by women and attainment in secondary and higher education by each gender; and economic activity is measured by the labour market participation rate for women and men. The GI can be interpreted as the loss in human development due to inequality between female and male achievements in the three GI dimensions. Bosnia and Herzegovina has a GI value of 0.149, ranking it 38 out of 162 countries in the 2019 index. In Bosnia and Herzegovina, 21.1 percent of parliamentary seats are held by women, and 74.0 percent of adult women have reached at least a secondary level of education compared to 89.3 percent of their male counterparts. For every 100,000 live births, 10.0 women die from pregnancy related causes; and the adolescent birth rate is 9.6 births per 1,000 women of ages 15-19. Female participation in the labour market is 35.4 percent compared to 58.1 for men.

The Multi-dimensional Poverty Index (MPI), which identifies multiple overlapping deprivations suffered by individuals in 3 dimensions: health, education, and standard of living. In Bosnia and Herzegovina, 2.2 percent of the population (73 thousand people) are multidimensionally poor while an additional 4.1 percent are classified as vulnerable to multidimensional poverty (135 thousand people). The breadth of deprivation (intensity) in Bosnia and Herzegovina, which is the average deprivation score experienced by people in multidimensional poverty, is 37.9 percent. The MPI, which is the share of the population that is multidimensionally poor, adjusted by the intensity of the deprivations, is 0.008. Compared to Income Poverty, the multidimensional poverty headcount is 2.1 percentage points higher which implies that individuals living above the income poverty line may still suffer deprivations in health, education and/or standard of living.

The Global Gender Gap Index (GGGI) of the World Economic Forum examines the gap between men and women in four categories: economic participation and opportunity, educational attainment, health, and survival; and

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<sup>55</sup> United Nations Development Programme. Human Development Report. <http://hdr.undp.org/en/content/table-4-gender-inequality-index>.

political empowerment.<sup>56</sup> Out of 149 countries, Bosnia and Herzegovina ranks 16<sup>th</sup> out of 26 countries in the Europe and Central Asia Region and 76 out of 155 countries globally.:

Description	Score	Rank
Economic participation and opportunity	0.608	115
Educational attainment	0.967	110
Health and survival	0.974	64
Political empowerment	0.302	45
Gender Gap Index 2018	0.713	76

Table 1. Bosnia and Herzegovina rank based on GGGI in 2021, where Inequality = 0.00; Equality = 1.00. Source: The Global Gender Gap Report 2021

The Organization for Economic Cooperation and Development (OECD) developed the Social Institutions and Gender Index (SIGI), a composite index that scores countries (i.e., 0 to 1) on 14 indicators grouped into five sub-indices: discriminatory family code, restricted physical integrity, son bias, restricted resources and assets, and restricted civil liberties to measure the discrimination against women in social institutions across 160 countries. The 2018 SIGI value for Bosnia and Herzegovina is 22%, suggesting that discrimination against women is low.<sup>57</sup>

### Political participation and Public Life

According to the 2013 Law on Amendments to the Election Law of Bosnia and Herzegovina, equal representation of genders exists when one of the genders is represented by at least 40% of the total number of candidates on that list (previously, the quota was 33%). Nowadays, the percentage of women in legislative and executive authorities at all levels remains unsatisfactory (even the situation is better comparing 2014 and 2018 elections) and the newly introduced 40% representation quota has not yet been reached.

The last General Elections were held in 2018 in Bosnia and Herzegovina (State, entities, cantonal level, and Brčko District level). The Governments are still not fully established, but the available figures give an overview of the gender reality in B&H. There are 9 (21.4%) female representatives in the House of Representatives of the Parliamentary Assembly of Bosnia and Herzegovina out of 42 members<sup>58</sup> and 3 (20%) female delegates in the House of Peoples of the Parliamentary Assembly of Bosnia and Herzegovina, out of 15 members.<sup>59</sup> At the time, this analyze was done, (after 2018 Elections) the B&H Council of Ministers was still not established. The Presidency consists of three persons, and all three are male, as was the case, with the composition of the previous Council which is still in power. The Council of Ministers consisted of nine ministries, and during the 2014 – 2018 mandate there were only two female ministers (22.20%). But just to have a wider picture, this document has analyzed male/female ratio more deeply (ministers and deputy ministers – 18 persons), and there are only two women (11.11%) out of 18 more influential persons in the B&H Government.

In total, comparing to men, some more women are employed in state institutions (53%). However, gender imbalance is noticeable when observing the gender structure of managerial positions - the representation of men in managerial positions is considerably higher.

<sup>56</sup> World Economic Forum. The Global Gender Gap Report 2021 Country Profiles. [https://www3.weforum.org/docs/WEF\\_GGGR\\_2021.pdf](https://www3.weforum.org/docs/WEF_GGGR_2021.pdf)

<sup>57</sup> OECD (2019), Gender, Institutions and Development Database, <https://oe.cd/ds/GIDDB2019>.

<https://www.genderindex.org/wp-content/uploads/files/datasheets/2019/BA.pdf>

<sup>58</sup> Parliamentary Assembly of Bosnia and Herzegovina, Representatives of the House of Representatives, available at: <https://www.parlament.ba/Content/Read/27?title=Statisti%C4%8Dkipodaci&lang=en>

<sup>59</sup> Parliamentary Assembly of Bosnia and Herzegovina, Delegates of the House of Peoples, available at: <https://www.parlament.ba/delegate/list>

The House of Representatives of the FB&H Parliament consists of 98 representatives, out of which 25 (25.5%) are women<sup>60</sup> and the House of Peoples of the FB&H Parliament counts 22 (24.8%) female delegates out of a total 55 (usually there are 58, but only 55 were appointed until 28.03.2019.)<sup>61</sup>. The Government of FB&H (Prime-minister and 16 ministers), appointed after the last elections, in 2014, has had 4 female ministers (25%) and 12 (75%) male ministers<sup>62</sup>. The Prime minister was male.

National Assembly of the Republic of Srpska counts 23 (27.7%) female representatives out of 83 in total (Elections 2018)<sup>63</sup>. There are 6 (37.5%) female ministers, out of 16, appointed to the Government of the Republic of Srpska<sup>64</sup>

Local/ municipal election were held in 2020. The electoral cycle was marked in particular by the minimal participation of women as candidates for mayoral positions. In the end, four women out of 425 mayoral candidates in total (out of which 29 were women mayoral candidates) were elected as mayors, mostly in small municipalities, which is a drop of over 50% in comparison to 2016 local elections.

All the city mayors in B&H are, currently, men. In the municipal/city councils and assemblies of municipalities/cities in B&H, every fifth term belongs to women<sup>65</sup>.

When it comes to municipal/city councils/assemblies, in FB&H, women won 21.8% of mandates, i.e., 402 out of 1,845. Two municipalities (2.53%) elected less than 5% of women, namely municipalities Tešanj and Kalesija. Most of the municipalities (70.9%) elected between 11% and 30% of women, and only four municipalities (5%) elected more than 40% of women, namely municipalities Drvar, Dobretići, Kiseljak and Trnovo (FB&H).

In RS, women won 17% of mandates, i.e., 214 out of 1,256. Seven municipalities (11.5%) elected less than 5% of women, namely municipalities Pelagićevo, Stanari, Ugljevik, Knežev, Bratunac, Rudo, Milići. No women were elected in the Pelagićevo municipality. Most of the municipalities (63.9%) elected between 11% and 30% of women. Two municipalities (3.3%) elected more than 40% of women, namely municipalities Kupres (RS) and Istočni Stari Grad. Kupres (RS) is the winner of the 2020 Local Elections when it comes to women's representation – the municipal council now consists of 63.6% of women, i.e., women hold seven out of 11 mandates.

Inhabitants <sup>66</sup>				Local	Elections	2020
Town	Total	Men	Women	Elected	Men	Women
Bugojno	31,470	15,635	15,835	25	21	4
Donji Vakuf	13,985	6,922	7,063	21	17	4
Gornji Vakuf-Uskoplje	29,933	10,532	10,401	23	18	5
Jajce	27,258	13,856	13,402	25	20	5
Cazin	66,149	33,072	33,077	30	23	7
Bosanska Krupa	25,545	12,548	12,997	24	20	4
B&Hać	56,261	27,041	29,220	30	21	9
Sanski Most	41,475	20,826	20,649	31	25	6

<sup>60</sup> Federal Parliament, Representatives of the House of Representatives, available at: <https://predstavnickidom-pfbih.gov.ba/hr/page.php?id=8>

<sup>61</sup> Federal Parliament, Delegates of the House of Peoples, available at: <https://parlamentfbih.gov.ba/v2/hr/stranica.php?idstranica=6>

<sup>62</sup> Government of the Federation of Bosnia and Herzegovina, Ministers, available at: <http://www.fbihvlada.gov.ba/hrvatski/ministarstva/>

<sup>63</sup> National Assembly of the Republic of Srpska: <https://www.narodnaskupstinars.net/?q=en>

<sup>64</sup> Government of the Republic of Srpska: <http://www.vladars.net/eng/Pages/default.aspx>

<sup>65</sup> Official Gazette, Women and Men in Bosnia and Herzegovina, [http://www.bhas.ba/tematskibilteni/FAM\\_00\\_2017\\_TB\\_0\\_BS.pdf](http://www.bhas.ba/tematskibilteni/FAM_00_2017_TB_0_BS.pdf)

<sup>66</sup> Popis stanovništva 2013 - <http://www.statistika.ba/#tab4>

<http://fzs.ba/index.php/popis-stanovnistva/popis-stanovnistva-2013/konacni-rezultati-popisa-2013/>

<b>Bosanski Petrovac</b>	7,328	3,678	3,650	17	14	3
<b>Ključ</b>	16,744	8,365	8,379	25	20	5
<b>Usora,</b>	6,603	3,266	3,337	13	11	2
<b>Tešanj,</b>	43,0632	21,376	21,687	25	24	1
<b>Maglaj</b>	23,146	11,430	11,716	25	23	2
<b>Lukavac</b>	44,520	21,786	22,734	29	25	4
<b>Tuzla,</b>	110,979	52,745	58,234	30	21	9
<b>Kalesija</b>	33,053	16,597	16,456	26	25	1
<b>Živinice</b>	54,765	28,714	29,051	31	29	2
<b>Žepče</b>	30,2019	15,335	14,884	25	19	6
<b>Zavidovići</b>	35,988	26,574	26,908	29	27	2
<b>Travnik</b>	53,842	26,574	26,908	30	24	6
<b>Zenica</b>	110,663	54,660	56,003	30	27	3
<b>Vitez</b>	25,836	12,767	13,069	25	16	9
<b>Visoko</b>	39,938	19,705	20,233	25	21	4
<b>Kakanj</b>	37,441	18,651	18,790	29	24	5
<b>Ilidža</b>	66,730	32,359	34,371	31	21	10
<b>Prozor-Rama</b>	14,218	7,210	7,070	21	18	3
<b>Jablanica</b>	10,111	5,027	5,084	19	16	3
<b>Konjic</b>	25,148	12,360	12,788	27	22	5
<b>Mostar</b>	105,797	51,210	54,587			
<b>Čitluk</b>	18,140	8,937	9,203	25	20	5
<b>Čapljina</b>	26,157	12,947	13,210	25	19	6

Table 2<sup>67</sup>. Inhabitants and elected Members of Local Municipal Councils in the selected municipalities

All the analyzed figures are far from 40% stipulated by B&H Gender Equality Law.

50) Education and Economic participation of women

51) In general, B&H has adequate laws and regulations in place to ensure gender equality in the education sector. The right to equal education is provided by the Constitution of B&H (part II.3 (L)) and the constitutions of the entities, and the Law on Gender Equality in B&H (Article 10). The Framework Law on Elementary and Secondary Education in B&H and the Framework Law on Pre-school Upbringing and Education in B&H provide a legal framework for education. These laws empower and require that education authorities in the FB&H (including those in cantons), RS and BDB&H, implement and respect the principles and norms defined by these laws (GAP 2013-2017).

Here we first look at the working age population of B&H (15-64), consisting of employed, unemployed and inactive persons, in accordance with the Labor Force Survey standards, to identify the gender gaps in education.

<sup>67</sup> Table created by the Author

Working aged women have lower educational attainment levels than men in B&H. 39.5 percent of working age population in B&H has only primary education, 51 percent has secondary or specialized education, and 9.5 percent has higher education. A considerably higher proportion of women than men have only a primary education (49 percent compared to 29 percent), with a similar achievement gap in favor of men present in secondary education (60.9 percent compared to 41.7 percent). The gender gap in higher education is considerably smaller, at only one percentage point in favor of men. The FB&H has the largest gender gap (over 20 percentage points) for primary and secondary education – more women with only primary and fewer with secondary. In the RS and BDB&H, this gender gap is in the 16 percentage point range for primary and 14 percentage point range for secondary education, respectively<sup>68</sup>.

Education achievements of working age women in the entities and the Brcko District are similar to B&H levels. In the FB&H and RS, almost 50 percent of working age women have only a primary education and 41 percent and 44 percent, respectively, have a secondary education. The FB&H has the highest ratio of women with higher education (9.7 percent) and the RS, the lowest (7.7 percent). The BDB&H has the highest ratio of women with only primary education (57.3 percent) and the lowest with secondary and tertiary (34.9 percent and 7.8 percent, respectively)<sup>69</sup>.

By contrast, in the labor force (employed + unemployed), there is a significantly higher percentage of women than men with a university education (20.7 percent of women and 12.3 percent of men), while it is the opposite for secondary education (60.4 percent of women and 70.7 percent of men)<sup>70</sup>. On average, a greater percentage of employed women than men have a higher education. Women with higher education account for a quarter of all employed women, compared to one in seven men. At the same time, a greater percentage of women than men have only a primary education (three percentage point difference).

Considering educational achievement and unemployment rates, except for primary education, women with secondary and university educations are also more likely to be unemployed than men with the same education. Among those with secondary education, women tend to be more often unemployed with a gender gap of nine percentage points. For university-educated women, the situation is slightly more favorable – the gender gap in favor of men is five percentage points<sup>71</sup>. For emphasis, note these figures do not account for men and women who are inactive.

Men with higher education are less likely to be employed than women and more likely to be inactive. 58 percent of men with higher education are employed, compared to 62 percent of women with higher education. Men with higher education are more likely to be inactive than women by nine percentage points. However, women with higher education are more likely to be unemployed than men by five percentage points. One in six highly educated women is unemployed compared to one in ten men.

Comparing the labor force (employed + unemployed) in the entities and BDB&H, found that the FB&H has the best educated female labor force. In the FB&H, 23.4 percent of women in the workforce have higher education, compared to 19.1 percent in the BDB&H, and 16.5 percent in the RS. The FB&H also has the lowest percent of workforce with primary education (16.5 percent). The FB&H and RS have almost equal proportions of workforce with a secondary education, 60.1 percent, and 61.2 percent, respectively. The BDB&H has the highest percent of women with primary education (26.9 percent) and the lowest with secondary education (54 percent) (LFS, 2015: Graphs 7.1 – 7.3). Looking at employed women only (LFS, 2015: Graphs 8.1-8.3), over half of them have a

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<sup>68</sup> LFS, 2015

<sup>69</sup> LFS, 2015: Graphs 6.1-6.3

<sup>70</sup> LFS, 2015: Graph 7

<sup>71</sup> LFS, 2015, calculations

secondary education. The FB&H and BDB&H have the highest percent of employed women with higher education (27.9 percent and 26.6 percent, respectively). In the RS, 17.3 percent of employed women have higher education. The RS also has the highest percent of employed women with only a primary education (25 percent) and the FB&H has the lowest (16.2 percent). Women with secondary education also account for the highest percentage of unemployed women - 70.3 percent in the RS, 68.6 percent in the FB&H, and 50.6 percent in the BDB&H. The BDB&H stands out with 43.6 percent of unemployed women with primary education, compared to considerably lower rates of 15.2 percent in the RS, and 17.3 percent in the FB&H.

Women's and men's choices in education have an impact on their earnings later in life. The "World Bank study on Bosnia and Herzegovina: Gender Disparities in Endowments, Access to Economic Opportunities and Agency (2015)" is, for the time being, the most current and relevant source of information on the gender wage gap. Their estimates show that the hourly-wage gap for the population 16-64 years of age working for salaries or wages, is nine percent. This means that the difference between men's and women's average hourly wage is nine percent of the men's wage. The gap varies across education levels and age groups, but is always in favor of men, with the exception of the 15-24 and 55-64 age groups<sup>72</sup>. When controlled for factors such as age, industry, occupation, gender and education, the latter being the main difference in observable characteristics between men and women, the wage gap persists<sup>73</sup>.

There is clear evidence that gender norms translate into preferences and choices when it comes to the fields of study chosen by male and female students. In a number of instances, these choices have led to a 'gender divide' and occupational segregation, creating 'feminization of professions.' Overall, these feminized professions are characterized by lower salaries and, consequently, translate into lower lifetime earnings and social benefits. Lower paid 'women's' jobs exist in both public and private sectors and in the informal economy. Sectors primarily associated with lower earnings include education, health, culture, and agriculture.

There is a serious problem of gender-based inequalities and discrimination in women's access to the labour market, combined with structural stereotyping and the problem of unpaid work, which affects women disproportionately. All these combined factors are reflected in the low number of employed women in 2019: with 20.47%, 16.85% and 62.68% of females employed in agriculture, industry, and services sectors respectively<sup>74</sup>. It is also alarming that there are twice as many women than men with university degrees who are unemployed. There is a serious problem of gender-based inequalities and discrimination in women's access to the labour market, combined with structural stereotyping and the problem of unpaid work, which affects women disproportionately. The current employment strategies do not seriously address the issue of female participation in the labour market, the improvement of which would contribute to reducing poverty.

### **Access to resources**

Women and men have equal legal rights to property ownership, management, and use, as well as equal legal status in relation to access to financing and services<sup>75</sup>. However, local traditions and customs persist in giving preference to men. Women are known to 'voluntarily' cede their right to a male relative or simply are not included in the deeds for land or housing (Interviews). Nationally, men account for over 70 percent of landownership and own 74 percent of dwellings. Women own 15 percent of all homes in 76 percent of female-headed households. Ten percent of dwellings has joint ownership<sup>76</sup>. Women hold joint ownership in 11 percent of male-headed households but only five percent of men have joint ownership in female-headed households.

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<sup>72</sup> WB, 2015: p. 52, based on LFS, 2013

<sup>73</sup> WB, 2015

<sup>74</sup> WB Development Indices, 2021 data

<sup>75</sup> WB, Women, Business, and the Law, 2016: p. 94

<sup>76</sup> WB 2015: p. 79



One possible explanation is that female-headed households are more likely to include women without partners. Across political entities, women own 16 percent of dwellings in the RS and BDB&H and 14 percent in the FB&H. However, the FB&H has the highest joint ownership – 13 percent – compared to three percent in the RS and one percent in the BD<sup>77</sup>.

There is considerable difference in dwelling ownership among men and women in urban and rural settings. Men own 80 percent of dwellings in rural areas and 66 percent in urban settings. For women, the trend is reversed – dwelling ownership among urban women is higher at 19 percent compared with 12 percent for rural areas. The same holds true in cases of joint ownership – 13 percent in urban settings and 8 percent in rural. Among landowners, 70 percent are men<sup>78</sup>.

While only approximately 16 percent of women are heads of household, more non-poor than poor women are heads of households. In the top 60th percentile of the income category, women account for 17.8 percent of heads of household compared to 13.2 percent in the bottom 40th percentile category. More women are heads of household in urban settings (20 percent) compared to rural areas (13 percent). One explanation for this is that more income generation opportunities are available in urban areas than in rural and, consequently, women who are not able to support themselves and their families may not have an alternative option and choose to remain with their husbands (interviews). An additional likely factor is greater prevalence of traditional socio-cultural gender norms that support male ownership in rural areas. The share of households headed by women is similar in the three political entities: FB&H – 15 percent; RS – 17 percent; BDB&H – 16 percent<sup>79</sup>.

Level of financial inclusion in B&H is similar to the Europe and Eurasia (E&E) average but lags considerably behind upper-middle income countries. Financial inclusion has been broadly recognized as a central factor for promoting broad economic development and reducing poverty. According to 2014 FINDEX data, 53 percent of the B&H population had an account at a financial institution. This is slightly higher than the E&E average of 51 percent but considerably below upper-middle income countries at 71 percent. The percentage of account holders has declined by three percentage points in comparison with 2011, with a similar trend in E&E and upper-middle income countries. In 2014, 34 percent of the population in the 15-24 age group had an account, compared to 36 percent in E&E and 58 percent in upper-middle income countries. The rural population in B&H has higher ratios of access to a financial institution than in E&E – 52 percent compared with 46 percent. However, this falls considerably below the 69 percent in upper-middle income countries.

A considerable financial gender gap still exists in B&H. Only 47 percent of women have an account at a financial institution, compared to 59 percent of men. However, in comparison with 2011, the decline in the number of accounts among women was only one percentage point, compared to eight percentage points for men. While still low, men have higher ratios of savings than women – 12 percent compared to six percent. And women have slightly higher rates of borrowing than men – 16 percent of women compared to 12 percent of men borrowed money from financial institutions. Nationally, financial institutions are sources for 14 percent of loans, and 7 percent come from family and/or friends. Looking at all sources of funding as a group, 27.5 percent of women borrowed money in the past year, compared to 22.6 percent of men (FINDEX, 2014). Other sources of finance include informal lenders, family and friends, shops, and employers.

Women and men borrow for different purposes. According to FINDEX, women tend to borrow more for education or school fees (2.1 percent compared to 1 percent of men), health (4.5 compared to 3.6 percent of

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<sup>77</sup> 2011 BiH Household Budget Survey, in WB 2015

<sup>78</sup> WB, 2015

<sup>79</sup> Ibid, WB 2015

men) and other immediate needs, while men borrow more in order to start, operate, or expand a farm or business (2.7 percent of men compared to 2 percent of women (FINDEX, 2014). The World Bank (WB) approach to financial inclusion relies on three main dimensions: holding an account, formal savings, and formal borrowing. This data is available sex-disaggregated, as well as per rural/urban, age group, and education categories within the Databank of the WB<sup>80</sup>.

### **Women in Rural Areas**

The agricultural sector employs slightly more men than women – 18.5 percent and 16.8 percent, respectively. For women, this represents a 2.4 percentage point decline since 2013. The RS has the highest percentage of their workforce employed in agriculture and the highest percentage of women in the sector. Twenty-nine percent of the workforce are in this sector in the RS, compared to 24.6 percent in the BDB&H, and 10.6 percent in the FB&H. Also in the RS, 28 percent of women are employed in agriculture, compared to 18 percent in the BDB&H, and 9.1 percent in the FB&H.

Men and women tend to engage in different types of farm-related activities. Women more often are engaged in lower levels of agricultural activity, own smaller business, and are more likely to be engaged in more local and informal markets. By contrast, men are engaged in a wider spectrum of activities, have different levels of ownership and are more likely to be engaged in larger, formal markets. Farm activities performed almost exclusively by women include milking, picking fruit, and activities that require greater precision. Men tend to engage in contract labor, operation/use of machinery, transport of goods, marketing, and negotiating contracts<sup>81</sup>.

In the RS, women in rural areas have very few (if any) opportunities for non-work or house social interaction. In preparation for developing a new strategic program for agricultural development by 2020, the RS Ministry of Agriculture conducted a detailed analysis of the situation in rural areas, administering 800 surveys to agricultural households. One issue raised by women that stood out and came as a surprise was the lack of and need for opportunities, services, and activities, for women to engage in socially. There are very few associations or activity groups that coalesce around different interests. This was surprising given the assumptions that in the age of global communication, even in rural settings, women would have more access to such activities. This finding provides additional validation to the existence of still-deep social gender stereotypes that restrict women's involvement outside of household and family. In response to this finding, the new agricultural development plan in the RS includes strong emphasis on addressing this issue. Engagement in this area is a continuity of the 2010 rural development strategy and the RS Action Plan for the Advancement of the Position of Women in Rural Areas. The biggest limitation is lack of resources to address all needs.

In many communities, NGOs were the first to assist in the protection and implementation of women's human rights and today are active in communities in empowering women at the local level. Their activities include providing free legal assistance in case of violation of women's rights, provide protection to victims of domestic violence and human trafficking, support women through programs of credit and economic literacy, employment, and self-employment, as well as activities aimed at empowering rural women, Roma women's organizations etc.

A significant mechanism for establishing partnerships between institutional mechanisms for gender equality and non-governmental organizations is the Financial Mechanism for the Implementation of the B&H Gender Action Plan (FIGAP), which operates since 2010. Its main objective is to strengthen capacity of gender institutional mechanisms and relevant institutions to integrate activities from the GAP B&H into regular plans and programs, as well as to support non-governmental organizations in the implementation of projects under FIGAP.

In 2011, through FIGAP funds, 36 non-governmental organizations from all over B&H were supported to implement projects in total value of BKM 710,000. Implemented projects addressed issues of prevention and

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<sup>80</sup> Financial Inclusion Data/Global Findex: <http://datatopics.worldbank.org/financialinclusion/country/bosnia-and-herzegovina>

<sup>81</sup> FARMA II Validation Workshop; Oxfam meeting, 2018

supporting victims of domestic violence, strengthening women's entrepreneurship through self-employment and employment programs, and strengthening the role of women in political and public life.<sup>82</sup>

The actual number and types of women's association and NGO's that focus on gender equality in B&H is not known, but good reference is Women's Network of B&H which is an informal group of civil society organizations and individuals who represent and work on women's rights and encourage gender equality, promotes anti-discrimination, freedom of decision-making, equality, non-violence and anti-militarism, through acceptance of feminist values of action – peace, solidarity, trust, fellowship, equality and diversity. The network currently counts 40-member organizations, all from urban areas, of which 9 are registered in RS and 31 in FB&H. The network is supported by Royal Norwegian Embassy.<sup>83</sup>

Women (and men) in less developed and poorer municipalities face greater challenges than women living in more developed areas. For example, in the northern part of the RS, the socioeconomic position of women is considerably better than in East Herzegovina (RS Ministry of Agriculture, interview). More women are co-owners of land and houses, while in the more culturally traditional southern part, female ownership is negligible. Similar differentiation exists in terms of access to public services, especially to healthcare, due to distance from relevant services and inadequate transportation. In the FB&H, issues of access to services and gender norms which, in practice, lead to an unfavorable position of women compared with men, are particularly important in mountain areas, and often exacerbated by natural disasters, such as the devastating landslides of 2014.

The greatest obstacles to broader gender development and empowerment in rural areas faced by women are related to property rights, access to public services, finance, training, advisory services and mentorship, and limited time to engage in outside activities<sup>84</sup>. Only 12 percent of rural women own their dwellings compared to 80 percent of men and only eight percent of women have joint ownership, compared to 13 percent of urban women<sup>85</sup>. This likely holds true for other types of property, such as land, farm equipment, inheritance, and financial means (bank accounts, etc.). With absent support from a husband or other family members, this imbalance in property rights makes it practically impossible for women who would like to undertake new entrepreneurial activity to secure credit at reasonable rates. However, the situation seems to be improving among the younger women in terms of asset inheritance, co-ownership of land and dwellings, and increased decision-making (RS MoA interview).

Women in rural areas have lower levels of employment and self-employment than women in urban areas. The UNDP 2013 report called, "Rural Development in Bosnia and Herzegovina, Myth and Reality," indicates that self-employment rates and employment rates are lower for women in rural areas<sup>86</sup>. A World Bank analysis of the LFS data also confirms that the women's inactivity rate in rural areas is much higher than in urban<sup>87</sup>.

Limited opportunities for employment and self-employment are perpetuated by low levels of understanding of such possibilities, which is linked to inadequate (or non-existent) opportunities for information and training. As part of the preparations for the new RS agricultural strategy, the RS Ministry of Agriculture undertook an agricultural household survey with tailored questions for women in the households. Eighty percent of female respondents said that they never took part in educational or training activities about business (Interview and unpublished findings). It is reasonable to assume that the situation is probably not much different in the FB&H, but this kind of information is currently not available.

Rural women have overall lower levels of education than women in urban areas, as well as limited facility with and access to the Internet. This limits their knowledge about what training opportunities might exist. In those instances that the services are available, women may not be able to access them because of the distance from

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<sup>82</sup> Priručnik za ostvarivanje ravnopravnosti spolova na lokalnom nivou, mart 2015 (Manual for Achievement Gender Equality at Local Level, March 2015)

<sup>83</sup> <http://zenskamreza.ba/en/about-us/>

<sup>84</sup> Ibid, FARMA II validation workshop; Oxfam meeting

<sup>85</sup> WB 2015, p. 79

<sup>86</sup> UNDP, 2013: p. 80

<sup>87</sup> WB, 2015: p. 80

their homes, times they are being offered, and the limited time they have for such activities because of their household responsibilities.

Lack of affordable childcare and pre-schools in rural and smaller settlements is one of the central obstacles to women's participation in trainings, entrepreneurial activities, and consequently, employment. The Multiple Indicator Cluster Survey (MICS) showed that 25 percent of first-graders in urban areas attended preschool, compared to 13 percent from rural areas<sup>88</sup>, and 22.8 percent of urban children aged 36-59 months attended early childhood education compared to 7.9 percent of rural children<sup>89</sup>. Part of the reason for such a rural-urban gap may be the difference in awareness of the importance of pre-school education, or the fact that the level of the mother's education impacts how she views children's needs during the child's formative years. However, a portion of the difference can likely be attributed to inadequate availability of accessible and affordable childcare and pre-school education facilities in the rural areas.

Women in rural areas have limited access to appropriate information and services. There is a very limited number of women associations and cooperatives which exacerbates the lack of access to relevant information and services. This undermines opportunities for women to engage, learn, and share information on more equal footing. Prevailing patriarchal/conservative social norms are not conducive to women's participation in associations with predominantly male membership. This is particularly true for women who are at the stage of considering entrepreneurial activity or who are engaged in micro-activity. Even women who are owners or co-owners of larger agricultural production firms face gender stereotypes in the market and often decide to include a husband or a male relative during business discussions<sup>90</sup>.

Women's participation in agricultural activities and decision-making varies by regions. Regional differences are along the levels of economic development, with less developed areas/municipalities showing lower levels of participation in agricultural activities and decision-making. Women noted that lack of adequate financial assets as well as under-developed market channels are the greatest obstacles to increasing levels of economic activity (Interviews).

## 52) Marginalized groups and Social Inclusion

Marginalized groups considered in this section include Roma, persons with disabilities, and internally displaced persons, although the list of marginalized groups varies across agencies and institutions.

International human rights law directly applies through the B&H Constitution, but the Constitution does not protect equal rights for all groups and individuals. Human rights and fundamental freedoms for all individuals are enshrined in the International Covenants on Civil and Political Rights, and Economic, Social and Cultural Rights, as well as the European Convention on Human Rights and Fundamental Freedoms (ECtHR), directly applicable in B&H. Beyond clear-cut, direct discrimination issues confirmed in ECtHR judgments, gender-based discrimination, especially in the cases of multi-level discrimination (women with disabilities, Roma women with disabilities, etc.) is difficult to prove in court.

Persons with disabilities in B&H find themselves in an extremely difficult situation. Due to fragmented policies, persons with disabilities face discrimination on the basis of their place of residence. Authorities and the private sector ignore affirmative measures related to their employment and rehabilitation<sup>91</sup>. The most common forms of violation of the rights of people with disabilities in Bosnia and Herzegovina 'are in the areas of social protection, health, education, rights of access to information, labor and employment, and in the field of organized action for people with disabilities. Even where laws exist to regulate this area, there is an evident record of discrimination in practice<sup>92</sup>.

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<sup>88</sup> UNICEF, 2013: p.xix

<sup>89</sup> UNICEF, 2013: p. 76

<sup>90</sup> FARMA II validation workshop

<sup>91</sup> Institution of the Human Rights Ombudsman of BiH, 2010

<sup>92</sup> MDG Progress Report, 2013

**Women with disabilities** face daily discrimination, both as women and as persons with disabilities. They often lack adequate health care and access to services and are often socially isolated. The latest census demonstrates that at least 294,058 out of the 3,531,159 residents of B&H (8,3% of the population) are diagnosed with some form of a disability and that 30% of the population is either directly or indirectly affected by the consequences of disability. Women make for 50.9% of the population and 54.7% of all disabled people.

As the State and Gender Equality Agency recognizes, women with disabilities are especially vulnerable to being victims of multiple discrimination in B&H society, particularly in the areas of labour and employment, although B&H has ratified the UN Convention and adopted the EU standards, which require the rights of the disabled to be determined on the basis of their individual condition, not the cause of disability. However, this has never been implemented.

The rights of people with disabilities are determined differently in Bosnia's two entities and, within one of them (the Federation of B&H), in each of the ten cantons. Both entities have adopted strategies to improve the rights of disabled people, as required by the Convention, but neither has implemented them. In the Federation of B&H, 248 people with disabilities have started to work in 2015. Only 26.6% (66 out of 248) of them were women. In Republika Srpska, 547 disabled people were employed in the period from 2013 to 2016. An astounding 6.2% (34 out of 547) were women. The State has no special programs for employment, retraining or rehabilitation related to women with disabilities, nor does it have relevant statistics, data, or special measures for protection of women with disabilities in the areas of labour and employment<sup>93</sup>.

Almost two thirds of all disabled persons in B&H live close to or below the poverty line. One of the major obstacles is a lack of statistical data and information on the extent, nature, and characteristics of people with disabilities. There is also no central registry of people with disabilities and gender disaggregated data is not available. It is especially alarming since women with disabilities are also more likely to be victims of domestic violence. Health care is a very problematic field, especially reproductive health protection and protection and care for pregnant women.

In addition to the lack of appropriate examination tables for women in wheelchairs, the majority of health care workers are not trained for examinations or delivery when it comes to women with disabilities<sup>94</sup>. As it is mentioned in a report issued by NGOs on the Application of the Convention on the Rights of Persons with Disabilities in Bosnia and Herzegovina, women with disabilities have problems getting custody of children after a divorce since there is a common belief that the child should be with the "healthy" parent, ignoring the child's best interest, even in cases where the father was violent, and taking for granted that women with disabilities are not able to raise a child<sup>95</sup>.

The most severe and most common forms of violating the rights of people with disabilities in Bosnia and Herzegovina are found in the fields of social protection, health, education, rights of access to information, labour, and employment and in the field of organized action for people with disabilities.

Levels of discrimination against Roma are not the same for men and women. **Roma women** experience multiple vulnerability factors compared to Roma men and are even less politically represented and economically secure than Roma men. The 2009 ruling of the ECtHR to amend the B&H Constitution and allow ethnic minorities to run as candidates for the presidency or the House of Peoples of B&H, has not yet been implemented. Even when the direct discriminatory provision gets removed, Roma women will still face indirect obstacles in running for office at any level. Among Roma representatives on municipal councils and assemblies, there are no Roma women, despite campaigning by the Roma Women's Network before the 2016 local elections.

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<sup>93</sup> BiH Combined Fourth and Fifth Periodic Report on the Implementation of the CEDAW

<sup>94</sup> Annex to the 3rd Alternative Report on the implementation of CEDAW and women's human rights in BiH (2013)

<sup>95</sup> Prava za sve/ICVA: Izvještaj nevladinih organizacija. Primjena konvencije o pravima osoba sa invaliditetom u Bosni i Hercegovini (Report from the NGOs on the Application of the Convention on the Rights of Persons with Disabilities in Bosnia and Herzegovina). July 2013, available at <http://www.pravazasve.ba/publikacije-bs/docs-bs/izvjestaj-nevladinih-organizacija.pdf>

Discrimination of Roma women is very evident when one considers the levels of their formal employment (Human Rights Ombudsman Institution, 2013). The Alternative Report on the Implementation of CEDAW for B&H (Prava za sve, 2010) reported that of the 595 Roma women surveyed, almost 82 percent were unemployed, only nine percent were working in the informal sector, and seven percent were begging for subsistence. Additionally, in 2008, only two to three percent of Roma, men, or women, were employed in the public sector<sup>96</sup>. Since the population census report did not include employment data broken down by ethnicity, it is not possible to cite more recent data on the employment of Roma women.

The discrimination toward Roma, especially toward Roma girls, is also reflected in their rights to education. Percentages of children of primary school age attending primary or secondary school in 2011-2012 varied by sex for Roma children. Gender differences were larger in the FB&H than in the RS. In the FB&H 70.8 percent of Roma boys attended school compared to 66.9 percent of Roma girls. In the RS, 74.9 percent of Roma boys attended school, compared to 73.1 percent of Roma girls<sup>97</sup>. The number of girls who dropped out of primary school was greater than the number of boys<sup>98</sup>.

However, 'there are still no programs in place that would systemically improve the education of Roma girls and employment of Roma women and their access to health and social protection<sup>99</sup>. Roma women also experience very high levels of violence. Over 43 percent of surveyed Roma women self-reported being subjected to some form of physical violence<sup>100</sup>. The same survey also identified that 76 percent of them know a Roma woman who had been a victim of physical violence and 46.5 percent know a woman who has been subjected to sexual violence. In addition, there is an increasing number of Roma girls vulnerable to trafficking for forced marriages and a high percentage of arranged or paid marriages.

Twenty-four years after signing of the Dayton Peace Agreement (DPA), 98,324 **internally displaced people** (IDPs), many of whom are women victims of war, and some 47,000 minority returnees in Bosnia and Herzegovina are still in need of solutions<sup>101</sup>. The revised strategy for implementation of annex VII of DPA was supposed to be implemented by 2014.

The main issues are unclear status of IDPs after relocation, source of subsidized rents, lack of livelihoods solutions and inadequate public awareness. The public gaze of the media has long since moved on elsewhere and donors have shifted their resources. Displaced peoples have specific burdens over belonging, housing, occupation, welfare, security, and loss of communities. The decision whether to return to their homes is complex, with local and international political pressures adding to their uncertainties and insecurities. In addition, there is the impact of the war, the experiences of violence, the remembering and issues of reconciliation, and a variety of mostly unevaluated psychosocial programmes aimed at helping with these. All this has a profound impact on their health and well-being.

According to Norwegian Refugee Council/Internal Displacement Monitoring Centre (NRC/IDMC), Prijedor, Sanski Most, Banja Luka, Dobo, Modriča, Bijeljina, Zvornik, Bratunac, Srebrenik, Lukavac, Tuzla, Živinice, Zenica, Sarajevo, Gorazde, Mostar, Nevesinje, Čapljina and Trebinje are municipalities with the highest level of IDPs in Bosnia and Herzegovina.

B&H Ministry for Human Rights and Refugees, in close cooperation with UNHCR developed the Strategy of Supporting Solutions for Vulnerable Internally Displaced Persons and Returnees in B&H in 2017.

International arena (international partners and donors), as well as B&H, are facing a great challenge with the global migration crisis. However, given the great disproportion between the investment and the real needs for implementing the strategic goals of the B&H Strategy for Annex VII Implementation, B&H Government hope that

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<sup>96</sup> Ministry for Human Rights and Refugees, MHRR, 2008

<sup>97</sup> UNICEF and BiH MHRR, 2013

<sup>98</sup> BiH Combined 4th and 5th CEDAW Reports, 2011

<sup>99</sup> UNICEF, 2013

<sup>100</sup> Rights for All, 2011

<sup>101</sup> MfHRR, 2017

this challenge will not cause them to hesitate in the continuation of the work on a well-traced road of support to the return process in B&H.

### **Gender-based Violence**

B&H ratified the Council of Europe Convention against Violence against Women and Domestic Violence in 2013 and the entities have their own strategic documents. In the RS, acts of domestic violence can be prosecuted as a misdemeanor or felony, and domestic violence is recognized in the Misdemeanor Code, and in the Criminal Code of the RS. The RS established an entity council for fighting domestic violence. In the FB&H, the acts are processed in accordance with the Criminal Code of FB&H. In this criminal code, each canton has a referral mechanism for responding to domestic violence.

Every second woman has experienced some form of gender-based violence since the age of 15, while every fifth woman has probably experienced it over the past 12 months. Working with perpetrators of violence against women, especially in cases of domestic violence, is not yet a standard practice. Financing of safe houses is problematic in both the RS and FB&H, leading to a near closure of two out of nine safe houses. Victims of conflict-related sexual violence (CRSV) still lack socio-economic rights and legal protection. Victims of sexual violence are not treated equally in the two entities. While the government in B&H has made significant efforts toward eliminating trafficking, it still does not fully meet the minimum standards for doing so.

The lesbian, gay, bisexual, transgender, and intersex (LGBTI) community in B&H is for the most part absent from the public sphere due to pervading hostile attitudes among the majority of the population, fear for physical safety, and discrimination by family, friends, and coworkers. Following the 2014 general election, sustained advocacy on the part of civil society and changes in government led to progress on several fronts in the protection of LGBTI human rights.

Bosnia and Herzegovina has yet to implement coordination and cooperation between government institutions at all levels in the context of preventing and combating violence against women, as well as to harmonize laws and entity public policies in this area, which leads directly to the inability to ensure the equal status and protection of rights of women who survived violence and their access to justice. Safe houses run by NGOs have neither the same legal status in both entities, nor a secured system support, which directly threatens the existing limited services to help women in the period of acute violence.<sup>102</sup>

### **III. Mechanisms to address Gender Inequality in Bosnia and Herzegovina**

The introduction of the principle of the equality of women and men in all areas of public and private life does not only constitute the realization of one of the core standards required to achieve human rights and fundamental freedoms, nor can it be reduced merely to an issue of social justice, but rather and first of all it is a necessary precondition for the sustainable social and economic development of a country, with special emphasis on poverty reduction and the improvement of the quality of life for all citizens.

Over the past twenty years significant efforts have been made in Bosnia and Herzegovina to develop a national legal, institutional, and political framework for the implementation of the principle of gender equality.

Institutional gender mainstreaming mechanisms have been established within the system of legislative and executive power, at all levels, as a part of an overall effort to improve the status of gender equality (men/boys and women/girls) in Bosnia and Herzegovina.

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<sup>102</sup> Alternative CEDAW Report, 2016

The B&H Law on Gender Equality (LoGE) was adopted in 2003 (B&H OG 16/03) and amended in 2009 (B&H OG 102/09), including improved definitions and improved implementation provisions. An integrated text was published in 2010 (B&H OG 32/10). The law specifically addresses education, employment, labor and access to resources, social protection, healthcare, culture and sports, public life, and media. The Law provided the framework for the gender institutional mechanisms which implement it and monitor its implementation. The Law has established the Agency for Gender Equality of Bosnia and Herzegovina and the gender centres (Gender Centre of the Federation of Bosnia and Herzegovina and Gender Centre- Gender Equality Centre of the Government of Republika Srpska) which exist on the entity level. The Agency and the entity gender centres are public institutions i.e., governmental bodies.

The B&H institutional mechanism on gender equality forms a network which includes institutions on the municipal, cantonal, entity and state level, both in the executive and the legislature. Unfortunately, those institutions on municipal and cantonal level were established through different projects supported by international community (2004, 2005, 2006) and after the projects were over the gender mechanisms did not continue with their active role.

At the state (legislative) level there is a Commission for Gender Equality of the Parliamentary Assembly of B&H. At the entity level, there are Commissions for Gender Equality of the House of Peoples and the House of Representatives of the Parliament of the Federation of B&H, as well as the Equal Opportunities Committee of the National Assembly of Republika Srpska.

All institutional mechanisms have precisely defined mandate, which shows governments' commitment to achieve gender equality and inclusion of gender issue in all segments of social life. It is important to underline that the Agency and the entity Gender Centres represent the real drivers of the initiatives and measures, and the key implementers and monitors of the gender mainstreaming in B&H. These three institutional mechanisms for gender equality are crucial instrument in initiating and implementing activities in the area of gender equality. They have the prominent place considering their activities, projects, and measures which they have undertaken to strengthen and ensure sustainability of institutional mechanisms for gender equality.

The LoGE prescribes those victims of discrimination may seek judicial protection in accordance with existing procedures. Special proceedings for protection from discrimination are possible in compliance with the Law on Prohibition of Discrimination (Official Gazette of B&H, No. 59/09).

RS and FB&H Laws on Protection from Domestic Violence were adopted in 2012 and 2013, respectively. The laws replicate the definitions and elements of violence from an international framework. Domestic violence (DV), therefore, includes physical, psychological, or sexual pain and suffering, as well as economic damages against a family member.

The first B&H Gender Action Plan (GAP) was adopted for the period of 2006 – 2011 and financed through the Financial Instrument for the Gender Action Plan (FIGAP) which aggregated funds from various donors.

The new GAP for the period 2018 - 2022 builds on important international documents: CEDAW Convention and Recommendations of the UN CEDAW Committee, National Plan of Action based on the Beijing Declaration and Platform for Action, CoE recommendations, EU directives and regulations as well as a number of other binding and recommended UN, CoE and EU documents. GAP also refers to domestic documents such as the state, entity, and cantonal constitutions as well as the Gender Equality Law in B&H. GAP covers similar areas as the previous GAP and places significant focus on strengthening the gender machinery as one of the strategic goals, and on monitoring and reporting on the implementation of the GAP.

GAP is a policy document that guides gender equality policies at lower levels of governance and includes direct obligations not only for the B&H institutions, but also for its entities. In accordance with the LoGE, many local self-governance units were adopting local action plans (during the period 2013 – 2017) which operationalized the GAP's high-level priorities, bearing in mind local circumstances and competence of local self-governance units. However, the first local 3-5 year policies for women's empowerment developed by the municipalities were only the first steps in changing the mindset of local authorities and were often of lower quality due to low



capacities for gender analysis and limited sources of sex-disaggregated, statistically representative data. Increasingly, and with guidance from the entity gender centers, the quality of data available for gender analysis is improving, as is the quality of gender analyses and policies themselves.

Bosnia and Herzegovina developed an Action Plan for the implementation of Security Council Resolution 1325 on Women, Peace and Security, Bosnia and Herzegovina has failed to provide real mechanisms for its implementation and monitoring, without qualitative indicators of progress, and failed to ensure the involvement of institutions from lower governing levels and did not allow a broader involvement of civil society in its preparation and monitoring<sup>103</sup>.

Bosnia and Herzegovina has prepared and submitted the Sixth periodic report to the CEDAW Committee on 19.04.2018.

Institutional capacity to implement normative framework for gender equality remains to be one of the most serious challenges in B&H. The research about the institutional capacity to implement the Gender Equality Law and GAP in B&H, including Resolution 1325 (Ravnopravnost spolova i institucije BiH, GEA, 2014;) has shown that there is a serious limited capacity of public institutions to implement the established legal framework. The mailed questionnaire has been sent to 22 public institutions and 2,500 respondents. However, only a small percentage (325) has replied. Among those who replied, only 40% replied that they are familiar with the Law on Gender Equality, only 28% replied that they are familiar with the mandate of GEA, and only 9% that they had been involved with gender equality issues. Since it is reasonable to assume that responses were selective, in terms that those who were not familiar with the problem were also the ones who did not respond, this research is showing serious lack of present-day institutional support to gender equality in B&H. In addition, research revealed that great majority of responses has shown that there was a lack of institutional regulations related to gender discrimination and sexual harassment. This research actually has proven that there is a serious gap between normative and institutional aspects of gender equality in B&H which needs to be addressed by concrete set of measures and recommendations which will be fully contextualized in present day B&H society.

### **Civil Society organizations (women/gender/DRR)**

Prior to the 1990s the associations, organizations, media, and trade unions that existed at the time were mainly part of the governmental machinery and thus could hardly be viewed as elements of civil society. This means that there were only a few organizations in former Yugoslavia that were able to function as a factor able to monitor and control the socialist Government; their work was also not directly related to the needs of the country's population. These organizations generally included trade unions, chambers of commerce, sports and professional associations and women's associations, which acted in accordance with the interests of the ruling socialist system.

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However, certain feminist initiatives were launched during the 1970s in the capitals of the former Yugoslav republics, in universities, academic circles and among intellectuals<sup>104</sup>. The first NGOs in the region, including B&H, were established at the start of and during the 1991-1995 war; they were aimed at calling for peace and organizing protests to support the cause of peace, to address the developing humanitarian crisis and to provide aid to refugees and the victims of war. Starting in 1996, after the Peace Accords were signed and the new Constitution had been adopted, a large number of NGOs were established in B&H in an attempt to rebuild confidence in the divided country, take part in the rebuilding of the country and its institutions and to provide services and support to people in need. A significant number of these newly established organizations were women's organizations. These organizations were the first to cross the entity separation lines and to start rebuilding communication and trust. They began the process of raising awareness in society in regard to the effects of inequality and they organized activities related to the participation of women in politics, combating violence against women, the provision of assistance for the posttraumatic recovery of female victims of war,

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<sup>103</sup> Alternative CEDAW Report, 2016

<sup>104</sup> Lepa Mladenović: An article titled "Development of Feminism – a Women's Movement in the Former Yugoslavia" (<http://www.womengo.org.yu/sajt/sajt/istorija.htm#per2>).

education, the need to empower women with a view to establishing groups and associations across the country, etc. Some years later, women's NGOs even began to be established in the remote and rural areas of the country.

Some civil society interventions include fragmented approaches to gender equality, but there are several areas that could be improved. Project design is rarely preceded by a gender analysis. Implementation is rarely monitored using gender sensitive indicators and sex-disaggregated data. Finally, advocacy initiatives rarely take a gender transformative approach. One of the interviewees noted that civil society actors have a limited understanding of gender mainstreaming and gender equality. (Centar za ekologiju i energiju, Tuzla, Gender Centers of RS and FB&H). Another interviewee emphasized that, as in other sectors, men are primarily the leaders of the biggest CSOs which do not specifically deal with gender issues. (Gender Agency B&H, Gender Centers RS and FB&H). At the other end, there are gender equality organizations where nearly all organization directors are women. The expertise of the most advanced women's organizations is not properly deployed in the biggest civil society initiatives for capacity building and gender mainstreaming. On a positive note, organizations are increasingly working with men on gender equality in public and in private life.

#### IV. Gender issue in addressing the increasing vulnerability to intensified climate and flood related disasters (pluvial, fluvial, and torrential) in Bosnia and Herzegovina

The project objective is to address the increasing vulnerability of B&H communities and livelihoods to intensified climate-induced hydro-meteorological flood-related disasters (pluvial, fluvial, and torrential). This will be accomplished by adopting an integrated approach to flood risk management, resulting in strengthened institutional, technical, and financial capacity to implement long-term flood risk management strategies, including a combination of structural and non-structural measures which protect communities and employing eco-system-based approaches. In addition, strengthened early warning and emergency response systems will provide forecasts and early warning to at-risk populations. For achieving its objectives and targeting the GCF assistance the project employs social vulnerability approach. The various elements of this approach are discussed below in the context of gender equality and gender mainstreaming.

Climate change, climate variability and weather events pose a threat to the eradication of extreme poverty and should serve as a spur to hasten efforts not only to reduce greenhouse gas emissions but also to tackle other underlying risk drivers such as unplanned urban development, vulnerable livelihoods, environmental degradation, and gaps in early warnings.

Families are displaced and victims lose shelter. This is complicated further by immense shortages of food and drinking water. Severity of impact of natural hazards are often measured by the degree to which functioning of individuals, groups or organizations is disrupted. The disruption can be caused by death of family member or friends, displacement, injury, separation from family and community, damage to vegetation and infrastructure, epidemics of communicable diseases, loss of land, house, crops, livestock, productive assets, and other property, loss of employment and trade, damage to infrastructure.

Vulnerability describes the characteristics and circumstances of a community, system or asset that make it susceptible to the damaging effects of a hazard. There are many aspects of vulnerability, arising from various physical, social, economic, and environmental factors. The vulnerability is determined by the material and social assets that individuals and communities possess. The effect of possessing resources to a different degree is evident at all phases of disaster cycle, i.e., protection, response, impact, and recovery.

The vulnerability of households also depends on their composition. Gender and age of household members, number of dependents and persons with disabilities, economic status, human, social and political capital - all have an effect on protection from, response to and impact or recovery from natural disasters. Households can be nuclear, or three or four generational, male headed, or female headed, consisting of only a woman or a man. In all phases of disaster cycle it is important to consider composition of households and the ratio of dependents, these being children, seniors, and persons with disabilities (PWD). Concept of vulnerability is closely linked with resilience - "the capacity of a system to maintain its basic functions and structures in time of shocks and perturbations" (Birdman, 2006,15)

Social vulnerability approach to disasters emphasizes the roles of social, economic, and political relations, it describes social distribution of risks: as "some groups in society are more prone than others to damage, loss, and suffering in the context of differing hazards" (Blake, et al 1994,9). In dealing with disasters next to their

physical impact the social conditions that underlie different outcomes should be taken into consideration. Households rather than individuals should be taken as a unit for intervention strategies.

Gender intersects with other characteristics such as poverty, disability, age, seniority, and displacement – which rarely act alone – to exacerbate inequality and vulnerability.

### **Gender**

During the third week of May 2014, heavy rains fell in Bosnia and Herzegovina (B&H) causing sudden and extreme flooding and landslides over one third of the country. A similar flood event also occurred again in 2019. Urban, industrial, rural areas and roads were submerged; thousands were displaced and isolated without electricity or communications. Many houses and businesses were destroyed or damaged, and the effect on agriculture and productive services was severe. More than one million people have been affected.

A government-led Post-Disaster Needs Assessment was conducted in 2014 by the World Bank, E.U. and UN, to identify damages, losses and needs, and to provide an estimate of national recovery costs<sup>105</sup>. UN Women responded to the emergency by contributing a humanitarian gender expert to the PDNA team, to support analysis of gender issues and to ensure these will be addressed in response and recovery planning. The PDNA estimates not only the replacement cost of damaged assets, but also the cost to “build back better”, to increase resilience and mitigate the effects of future catastrophic events.

Having in mind all earlier mentioned, throughout the Gender Analysis, as well as the 2014 PDNA, it is clear that Gender inequality in Bosnia-Herzegovina has significant implications for disaster recovery. There is a widely held perception that because of prevailing norms and attitudes flood-affected women will experience greater difficulty compared to men in obtaining assistance. Therefore the PDNA 2014 Report among others, recommends: provision of training in gender-sensitive disaster preparedness and response planning for municipal governments including preparation of gender-responsive disaster plans, compliance with existing requirements for disaggregated statistics at all levels of government, ensure transparency in the distribution of recovery funds and support that is equitably provided to women and men, strengthen economic empowerment programmes for women as part of DRR, ensure meaningful participation of women, including marginalised and excluded women, in decision-making processes relevant to housing, land, property and agriculture etc. Also, the PDNA recognizes that “funding for women’s economic and political empowerment, and for equal participation in all disaster-related discussions, is key to building back better to reduce future disaster risks”.

While the country is one of the most advanced in terms of legislation and policy on gender equality, women are largely excluded from political and decision-making processes; they have disproportionately limited access to employment and income, and many are subject to violence. There is particular concern with respect to women IDPs, disabled, elderly and Roma women in B&H, who are even more severely disadvantaged and marginalized.

However, there is one promising example. Gender specific issues in state of natural disasters are recognized by RS Gender Center. Based on experiences from floods 2014 the Center has developed a Gender Action Plan for conditions of natural disaster. The Plan, among others, anticipates constant communication with relevant institutions in order to introduce gender perspective in all their activities related to rehabilitation, reconstruction and disaster relief, monitoring of disaster impact through defined gender-sensitive indicators, constant communication with women’s NGOs and local communities in order to assess needs of women, men and children during disaster, raising public awareness and information exchange to support population in need etc.

<sup>106</sup>

Resilience-building against future shocks will require attention and funding directed toward reducing the severe economic and decision-making disparities between women and men.

### **Gender issues related to different phases of disaster management cycle**

The impact of all mentioned vulnerabilities is revealed at all phases of disaster management cycle, i.e., at prevention and protection, response, impact, and coping. The purpose of the gender mainstreaming throughout

<sup>105</sup> <https://www.gfdrr.org/sites/default/files/BiH-rna-report.pdf>

<sup>106</sup> Gender Action Plan for conditions of natural disaster, Gender Center of RS, 2014

various phases of disaster management is to empower women and see them as capable agents of change, who can manage crisis, deal with its aftermath, and take on leadership roles in the family and community. Women play important economic and community roles that help in reconstruction and resilience building. Women often take on leadership roles in family and community in the face of death or disability.

#### Summary of gender differences in vulnerability and adapting to disasters

<p>Disparities that increase risks for women in disasters</p> <ul style="list-style-type: none"> <li>• Higher levels of poverty</li> <li>• Extensive responsibilities of caring for others</li> <li>• Domestic violence</li> <li>• Traditional women's occupations</li> </ul>	<p>Disparities that increase risks for men in disasters</p> <ul style="list-style-type: none"> <li>• Occupational segregation</li> <li>• Internalized norms of masculinity</li> <li>• Roles in the family and in the home</li> </ul>
<p>Gender experiences that can increase capacities for managing disaster situations:</p> <p>Women</p> <ul style="list-style-type: none"> <li>• Social networking</li> <li>• Caring abilities</li> <li>• Extensive knowledge of communities</li> <li>• Management of natural and environmental resources</li> <li>• High levels of risk awareness</li> </ul>	<p>Gender experiences that can increase capacities for managing disaster situations by:</p> <p>men</p> <ul style="list-style-type: none"> <li>• Professional and work contacts</li> <li>• Technical abilities</li> <li>• Limited childcare responsibilities</li> </ul>

#### Prevention and protection:

Early warning system works as a potent protection mechanism against natural hazards. But as receivers of warnings are humans, for warranting the desired response a number of human related factors should be considered. Information on hazard risk can be delivered in time, but still the problem of understanding information, believing it, and acting according to provided recommendations and hence saving life, health and property remains problematic. That is for the messages on multi-hazard risk information are to be tailored to the needs and capabilities of vulnerable groups, targeting women, children, senior citizens, and persons with disabilities (PWDs). Education level, knowledge of language in which warning is communicated, problems of hearing and seeing constitute serious barriers for adequately grasping the threat.

Men appeared to be more confident in managing an emergency situation, including the perception that they were better prepared to take action, including physical preparedness and response. Additionally, women had fewer opportunities to maintain a high level of social networking in the community, which may lead to them being less informed. Effective targeting requires utilization of both sources.<sup>107</sup>

In general, men are less vulnerable to climate induced hazards than women, hence less prone to take self-protective actions. Men often label evacuation calls as panic and do not react. Besides, acting according to stereotypical gender roles men may decide not to evacuate to safeguard property. On the other hand, women are readier to respond to risk, but lack of social power deters them to mobilize family to respond, they also may be slow to react according to instructions until securing family members.<sup>108</sup> Patriarchic structures and power imbalances in many countries tend to reduce women's status in society, their access to resources, opportunities and power and subsequently lead to higher female vulnerability to natural hazards.<sup>109</sup> Women's vulnerability to the impact of disasters is also increased by socially determined differences in roles and responsibilities of women and men and inequalities between them in access to resources and decision-making power.<sup>110</sup>

<sup>107</sup> <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6313390/>

<sup>108</sup> [https://socwomen.org/wp-content/uploads/2018/03/fact\\_10-2006-disaster.pdf](https://socwomen.org/wp-content/uploads/2018/03/fact_10-2006-disaster.pdf)

<sup>109</sup> Vulnerability to Natural Hazards: A Gender Perspective in Disasters, Carolin-Anna Achberger Karl-Franzens-Universität Graz

<sup>110</sup> [https://www.who.int/gender/other\\_health/genderdisasters.pdf](https://www.who.int/gender/other_health/genderdisasters.pdf)

Children and people with low education level may encounter problems of understanding messages when they are worded in impersonal, official manner. Elderly citizens with the problems of hearing or seeing and living alone can be left out of reach in case of delivery of hazard risk messages only by printed or electronic media.

#### **Response to disasters:**

Effectiveness of response greatly depends on a well-planned emergency behaviour, preparedness, and social cohesion of community. Therefore, outlined below features should be reflected in emergency planning. Timely evacuation is a challenging issue for small children, seniors, and persons with disabilities, especially with problems of moving and of persons with poor health. People dependent on health services for survival (dialyses, cancer treatment) are faced with life threatening circumstances in disaster.

Women's, children's, and elderly's vulnerability is greater due to the mobility constraints. Both car ownership and having driver's license is less frequent among women than men.

It is important to have list of CSOs dealing with vulnerable groups in the flooding area and include them in the phases of disaster management cycle.

#### **Impact of disasters and coping:**

Psychological reaction to natural disaster can be: withdrawal, stunning, apathy, disbelief, but also increase in community bond and social cohesion. Experience of natural hazards may result in stress, anxiety, depression, and other mood disturbances. Effect usually is not long lasting, only 25 percent of victims suffer psychological effects some months after disaster, but again a bigger percentage of women than men. Coping strategies of disaster affected population could include: raising of public awareness, information exchange and communication with citizens, improvement of preparedness, development of evacuation plans and preparation of evacuation centers, development of gender sensitive flood response plans (prior to floods), or leaving area, over-exploiting resources in order to survive (e.g. cutting down trees for wood), liquidation of assets (e.g. livestock), reducing food intake (during the flood).

As women, more so than men, depend on natural resources for livelihood (23% of woman employed in agriculture comparing to 19% men)<sup>111</sup>, disaster has a more severe effect on women. At the same time women play key roles in the sustainable use and management of natural resources. As senior women considerably outnumber men, they are more likely to experience physical limitations that matter so much in emergencies. The burden of domestic work and care-giving to children, as well as to ill and disabled family members mainly falls on women, so caring in aftermaths of disasters becomes more challenging for women. As men can decide to migrate due to property or employment loss, family burden increases for women. But also, more and more women decide to migrate for providing for the family, as the demand for domestic labour increases in EU countries. The migration of family member also affects senior citizens as they have to look after grandchildren.

Lesser political and professional representation, low involvement in consulting process of key stakeholders make women more vulnerable as their perceptions and needs are not reflected in planning of recovery process. Gender stereotypes negatively reflect on men. Men often are overwhelmed with emotions after disaster, but are constrained to express them, which has health related consequences and often stimulates substance abuse, domestic violence, gambling, and engagement in risky behaviours.

#### **Recommendations**

The analysis above shows that in order to set up effective national and community based early warning systems, climate-informed planning and improved resilience, gender consideration need to be integrated into the project implementation. The existing gender inequality factors (e.g., limited engagement of women in planning and decision making) and traditional distribution of gender roles in families and communities call for tailoring and targeting of the project solutions to outreach beneficiaries of both genders equally. Based on the analysis of the gender aspects of vulnerability to climate-induced natural disasters a number of recommendations for the proposed GCF project have been elaborated. These recommendations and the following Gender Action Plan are aimed at ensuring that the GCF project:

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<sup>111</sup> [http://www.odraz.hr/media/280503/izvjestaj\\_zene%20u%20lokalnom%20razvoju%20bosne%20i%20hercegovine\\_web.pdf](http://www.odraz.hr/media/280503/izvjestaj_zene%20u%20lokalnom%20razvoju%20bosne%20i%20hercegovine_web.pdf)

- narrows gender inequality;
- addresses the needs and constraints of women, girls, men, and boys;
- avoid any risks of adverse gender impacts;
- ensure women's participation, promotes their leadership qualities; and
- ensure women are included as planners, co-implementers and agents of change.

As a result of the project implementation more lives, property and productive assets will be secured from the impacts of climate induced disasters. Beneficiaries of this outcome will be all the population, but women's benefits will be bigger as for the livelihood women more than men depend on natural resources. They also are poorer than men and hence proportionally lose more. Moreover, after flood, majority of women is left with household and some farm works since their husbands are going out for cash. Women again have to be in charge of all the remaining

stuff including restarting their productive work such as farms, preparing livestock for raising, or replanting vegetables for some small cashes. Food security, psychological stresses, households' debts, and more labor-intensive works have degraded the wellbeing of women in the post-flood scenario<sup>112</sup>. The recommendations and the Gender Action Plan as summarized below have been designed to ensure that both men and women have full and equitable access to the Project's resources and benefits, with specific actions and responsibilities aimed at ensuring the full participation of women in Project activities.

At Project inception, additional gender analysis will be undertaken to ensure that the baseline data set is sex- and age-disaggregated and adequate for assessment of the gender impacts of the Project. At this time, the Gender Action Plan will be presented to the Project Implementation Team, including Government staff and consultants. In particular, the Project team leaders will ensure that all specialists are briefed on their responsibilities in relation to the Gender Action Plan upon mobilization. Progress reports will provide periodic updates on the effect of the Project on women, and regular UNDP review missions and the midterm review mission will review and monitor the gender impacts.

#### **Carry out gender responsive vulnerability assessment**

- Ensure that risk assessments are informed by gender analysis.
- Subjecting 2013 Census data to additional analyses, providing sex- and age- disaggregated data on social vulnerability across regions, assessing employment, education, health problems connecting with adequate functioning, disability, physical abilities (to swim, climb and run), ownership of house and productive assets and farming opportunities, ratio of dependent persons in households, household composition-single member male and female, women headed households, livelihoods, unpaid care and domestic work responsibilities.
- Mapping households receiving state subsistence allowance assistance by analysing social assistance database across chosen regions.
- Carrying out group discussions and in-depth interviews with key stakeholders, ensuring an equal representation of women, persons over 65, disabled or family members of disabled, IDPs, community leaders and government officials for mapping hazards and risks, collection of existing community coping strategies, identifying local businesses and institutions able to contribute to DRM activities. To identify priority needs, responses to, separate coping mechanisms of women and men, elderly, disabled and poor.

#### **Ensure collection of sex- and age-disaggregated data for project indicators**

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<sup>112</sup> [https://reliefweb.int/sites/reliefweb.int/files/resources/KHM\\_0601\\_ImpactonWomen\\_AA2014-01.pdf](https://reliefweb.int/sites/reliefweb.int/files/resources/KHM_0601_ImpactonWomen_AA2014-01.pdf)

- Gender disaggregated reporting will be further introduced beyond the project level at the national level through the multi-hazard disaster risk information and knowledge system to be designed by the project

#### **Enhance gender considerations in disaster preparedness activities**

- Disaster preparedness and response plans should be based on gender analysis and include gender considerations
- Men and women of different age groups, as well as those from vulnerable communities, should be involved in planning and implementation. Community consultancy groups with at least 40 percent representation of less represented sex should be established.
- Ensure that information on hazards, their character, probability of occurrence, threats to life, possible impact on livelihood, houses, crops, and livestock and on protecting measures is reaching both women and men through appropriately tailored channels.
- Increase preparedness of educational institutions. Provide information to teachers, pupils and students, academic and other staff on different types of disasters and on effective immediate response to them. Create emergency plans for kinder-gardens, schools, vocational institutions, and Universities. Inform parents on them. Ensure they are practicing periodically. Provide the staff with first aid training.
- Include Gender Mechanisms representative in disaster preparedness activities.

#### **Warrant universal access to disaster warnings**

- Tailor warning to the gender-differentiated needs and capabilities of specific population groups, such as children, senior citizens, IDPs, the sick and persons with disabilities.
- Set up community based early warning systems and make sure that they are tailored to effectively serve both women and men, based on prior gender responsive assessment of proposed systems.
- Use multiple methods for targeting messages for reaching broadest group of people, including TV, radio, Internet, sirens, flashing lights, registration-based alert systems sending messages to cell phones with information clearly stated orally and graphically. Use network of CSOs.
- Include pregnant women, IDPs, the elderly and disabled in emergency planning. Include CSOs.

#### **Mainstream gender considerations and engagement of women in resilience building activities**

- Target 40 percent representation of less represented sex in capacity building and training activities supported by the project.
- Make sure that women have equal access to livelihood generating activities facilitated by the project.
- Disseminate information and stimulate involvement of population of the hazard prone regions in insurance schemes, among them insurance of crops.
- Disseminate information on risk zones with recommendations for construction of dwellings, agricultural activities, and livestock husbandry.
- Support creation of employment opportunities for women and poor; ensure that women are part of employment-guarantee schemes planned in the framework of the community-based disaster risk management activities; provide social care services to redistribute burden of unpaid care work that falls on women. Provision of social care infrastructure can also generate jobs for women and men as part of disaster recovery.
- Strengthen social capital through creating community groups for planning for, safeguarding from and mitigating adverse effects of natural disasters with at least 30 percent less represented sex participations.

### **Conduct gender mainstreaming trainings and build capacity of national stakeholders targeted by project and responsible for various disaster risk reduction functions**

- In 2016 UNDP Istanbul Regional Hub (IRH) developed and piloted a three-module training manual on Gender mainstreaming in disaster preparedness and response (GMiDPR). The tool is designed for UNDP staff and government officers working in disaster preparedness and disaster response in the Europe and CIS region. In 2017 the tool was piloted with the DRR project practitioners in the Western Balkans countries. But still there is a lack of knowledge within the governmental institutions, as well as CSOs organizations on GMiDPR. There is a need to organize a series of training and capacity building workshop on gender mainstreaming based on the UNDP training manual targeting various stakeholders and practitioners (government, CSOs, community leaders, youth groups, women's groups, farmers' groups, as well as Gender institutional mechanisms) at the national and local levels.

### **Engage women in decision-making**

- Ensure at least 40 percent representation of less represented sex and their active participation in project stakeholder consultations, local and national decision-making bodies set up and/or facilitated by the project. This includes ensuring that women are properly represented in municipal investment planning process, formulation of community preparedness plans and that the of women are incorporated in all products are truly designed to promote and advance gender equality and social inclusion.
- Secure participation of the Gender Institutional Mechanism representatives from all the governmental level
- In line with the recent CO Engagement Strategy for Women CSOs and Grassroots, women's groups and women's advocacy organisations will be invited to contribute to advocacy and awareness raising as well as development of risk financing and transfer mechanisms products and tools to influence the offer of inclusive, responsible financial products. Women's associations know their real needs, barriers and main risks, which can support and guide the design of relevant products. Therefore, women's groups and gender equality advocates will be engaged with development and finance institutions, and governments, civil society and affected communities themselves – to develop mechanisms that bring transformative benefits to women and girls.

### **Affirmative Measures**

- The recent UNDPs Intersectional Analysis of the COVID-19 and Inflation on Women confirms that 55.5% of women experienced a worsened financial situation while Report on Mapping the Gender Component in Data and Legislation in the area of Climate Change, Environment and Biodiversity discusses women's reduced access to credit as it requires land/asset ownership in order for commercial banks to approve credit funds. Therefore, affirmative measures will be provided for women led businesses and businesses that employ at least 50% of women and companies that have achieved parity in managerial positions-boards, by awarding additional scores to such companies by virtue of being embedded in the selection criteria.
- Furthermore, feasibility studies on micro-insurance, regional disaster risk insurance program and catastrophe bonds will take into account specific barriers women face (taking into account local dynamics and whether insurance products are sold through male-dominated groups or cooperatives, and whether men have better access to these products and could purchase them more easily.), inform targeting and identify women centered solutions (for example, feasibility of women-specific micro-level risk insurance schemes)

### **Requirements to the project staff**



- Gender-responsive social vulnerability approach can be realized only by the gender and social vulnerability sensitive staff of the project. Therefore, project staff should be composed of both women and men represented at all levels of decision-making. Staff members should have a record of participation in trainings on gender mainstreaming and on social vulnerability approach. Also, it is suggested that staff members participate/complete a specific Gender mainstreaming in disaster preparedness and response trainings. Even employing new staff, the ToRs can consist of request of knowledge on gender mainstreaming.

## References

Women and Men in B&H, Sarajevo 2018., Agency for Statistics B&H, [http://www.bhas.ba/tematskibilteni/FAM\\_00\\_2017\\_TB\\_0\\_BS.pdf](http://www.bhas.ba/tematskibilteni/FAM_00_2017_TB_0_BS.pdf)

Durham University, Rethinking flood risk communication, E. Rollason, L. J. Bracken, R. J. Hardy, A. R. G. Large, <http://dro.dur.ac.uk/24379/1/24379.pdf>

Bosnia and Herzegovina 2018. Report, <https://ec.europa.eu/neighbourhood-enlargement/sites/near/files/20180417-bosnia-and-herzegovina-report.pdf>

OHR ([www.ohr.int](http://www.ohr.int)) under '5+2 Agenda'

United Nations Development Programme. Human Development Report. <http://hdr.undp.org/en/content/table-4-gender-inequality-index>.

[http://hdr.undp.org/sites/default/files/2018\\_human\\_development\\_statistical\\_update.pdf](http://hdr.undp.org/sites/default/files/2018_human_development_statistical_update.pdf)

<http://hdr.undp.org/en/towards-hdr-2019>

World Economic Forum. The Global Gender Gap Report 2018 Country Profiles. [http://www3.weforum.org/docs/WEF\\_GGGR\\_2018.pdf](http://www3.weforum.org/docs/WEF_GGGR_2018.pdf)

<https://www.weforum.org/reports/the-global-gender-gap-report-2018>

OECD (2019), Gender, Institutions and Development Database, <https://oe.cd/ds/GIDDB2019>.

<https://www.genderindex.org/wp-content/uploads/files/datasheets/2019/BA.pdf>

Parliamentary Assembly of Bosnia and Herzegovina, Representatives of the House of Representatives: <https://www.parlament.ba/Content/Read/27?title=Statisti%C4%8Dkipodaci&lang=en>

Parliamentary Assembly of Bosnia and Herzegovina, Delegates of the House of Peoples, available at: <https://www.parlament.ba/delegate/list>

Federal Parliament, Representatives of the House of Representatives, available at: <https://predstavnickidom-pfbih.gov.ba/hr/page.php?id=8>

Federal Parliament, Delegates of the House of Peoples, available at: <https://parlamentfbih.gov.ba/v2/hr/stranica.php?idstranica=6>

Government of the Federation of Bosnia and Herzegovina, Ministers, available at: <http://www.fbihvlada.gov.ba/hrvatski/ministarstva/>

National Assembly of the Republic of Srpska: <https://www.narodnaskupstinars.net/?q=en>

Government of the Republic of Srpska: <http://www.vladars.net/eng/Pages/default.aspx>

Official Gazette, Women and Men in Bosnia and Herzegovina, [http://www.bhas.ba/tematskibilteni/FAM\\_00\\_2017\\_TB\\_0\\_BS.pdf](http://www.bhas.ba/tematskibilteni/FAM_00_2017_TB_0_BS.pdf)

Popis stanovništva 2013 - <http://www.statistika.ba/#tab4>  
<http://fzs.ba/index.php/popis-stanovnistva/popis-stanovnistva-2013/konacni-rezultati-popisa-2013/>

Status of Gender Equality in Bosnia and Herzegovina, February 2018, B&H Gender Agency,  
<https://arsbih.gov.ba/stanje-ravnopravnosti-spolova-u-bosni-i-hercegovini/>

WB, Women, Business, and the Law, 2016: p. 94

B&H Household Budget Survey, in WB 2015

Ibid, WB 2015

Financial Inclusion Data/Global Index: <http://datatopics.worldbank.org/financialinclusion/country/bosnia-and-herzegovina>

FARMA II Validation Workshop; Oxfam meeting, 2018

Priručnik za ostvarivanje ravnopravnosti spolova na lokalnom nivou, mart 2015 (Manual for Achievement Gender Equality at Local Level, March 2015)

<http://zenskamreza.ba/en/about-us/>

Institution of the Human Rights Ombudsman of B&H, 2010

MDG Progress Report, 2013

B&H Combined Fourth and Fifth Periodic Report on the Implementation of the CEDAW  
Annex to the 3rd Alternative Report on the implementation of CEDAW and women's human rights in B&H (2013)

Alternative CEDAW Report, 2016

Prava za sve/ICVA: Izvještaj nevladinih organizacija. Primjena konvencije o pravima osoba sa invaliditetom u Bosni i Hercegovini (Report from the NGOs on the Application of the Convention on the Rights of Persons with Disabilities in Bosnia and Herzegovina). July 2013, available at <http://www.pravazasve.ba/publikacije-bs/docs-bs/izvjestaj-nevladinih-organizacija.pdf>

Lepa Mladenović: An article titled "Development of Feminism – a Women's Movement in the Former Yugoslavia" (<http://www.womenngo.org.yu/sajt/sajt/istorija.htm#per2>)

<https://www.gfdrr.org/sites/default/files/BiH-rna-report.pdf>

Gender Action Plan for conditions of natural disaster, Gender Center of RS, 2014

[http://www.odraz.hr/media/280503/izvjestaj\\_zene%20u%20lokalnom%20razvoju%20bosne%20i%20hercegovine\\_web.pdf](http://www.odraz.hr/media/280503/izvjestaj_zene%20u%20lokalnom%20razvoju%20bosne%20i%20hercegovine_web.pdf)

[https://socwomen.org/wp-content/uploads/2018/03/fact\\_10-2006-disaster.pdf](https://socwomen.org/wp-content/uploads/2018/03/fact_10-2006-disaster.pdf)

**Table 25: Gender Action Plan**

Gender Action Plan Template						
<i>Project-level outcome (e.g., Systems and capacity for sustainable land management established)</i>						
Gender-related activity	Indicator	Baseline	Targets, including sex-disaggregated targets	Budget	Timeline	Responsibility

Gender-related activity	Indicator	Baseline	Targets, including sex-disaggregated targets	Budget USD <sup>113</sup> 2,740,790	Time line	Responsibility
<p><b>Impact Statement:</b> <i>Increase resilience and enhanced livelihoods of the most vulnerable people including women and girls, communities, and regions to the negative impacts of climate change.</i></p> <p><b>Outcome Statement:</b> <i>Gender-specific and gender-responsive climate risk and vulnerability information developed and used in decision-making; Reduced loss of life and assets of the most vulnerable including women, girls, disabled, old people through a strengthened country-wide gender-responsive flood forecasting and early warning system.</i></p> <p><i>Strengthened institutional and regulatory systems and capacity for gender sensitive climate responsive planning and decision-making; Increased climate risk financial resilience of the most vulnerable including women and female-headed households, through the development of a national flood and disaster risk insurance scheme and other risk financing mechanisms; Strengthened adaptive capacity and reduced exposure of the most vulnerable households, in particular female-headed households to climate risk through the implementation of structural, non-structural and EbA flood protection measures;</i></p>						
<p><b>Output 1:</b> Fully integrated impact-based Flood Forecasting and EWS facilitates timely preparation and response.</p> <p><b>Output 1 statement:</b> <i>Gender-specific and gender responsive climate risk and vulnerability information developed and used in decision-making. Reduced loss of life and assets of the most vulnerable including women, girls, disabled, old people through a strengthened country-wide gender-responsive flood forecasting and early warning system.</i></p>						

<sup>113</sup> A budget of \$100,640 has been allocated for the implementation of the Gender Action Plan and is included in the ESAR overall costs

<p><b>Activity 0:</b> Consider modifying Gender Analysis and Action Plan based on the outcome of stakeholder consultations during project implementation.</p>	<p><b>Indicators:</b> Reviewed Gender Analysis and Action Plan</p>	<p>Gender Analysis and Action Plan are not revised</p>	<p><b>Targets:</b> The Gender Analysis and Action Plan have been reviewed and adjusted to reflect the stakeholder's inputs following the consultation processes. This process will be done within the first 6 months of the project. <i>Note: The project is to ensure that the consultations process is participatory, consensus oriented, accountable, transparent, responsive, and inclusive. All potential changes to GAP will be communicated to the Secretariat through the APR.</i></p>	<p>8,000</p>	<p>Year 1-4</p>	<p>UNDP project team, stakeholders</p>
<p><b>Activity 1.1:</b> Upgrade and expand the coverage of the hydrometric network for enhanced monitoring of climate variables.</p> <p><b>Gender Mainstreaming Activities:</b> Upgrade and expand the coverage of the hydrometric network with the specific focus on ways in which climate variables affect and impact women. Assess options and propose ways in which women can benefit from hydrometric network expansion in terms of employment and income making opportunities. Ensure participation of both men and women in consultation process during the installation of the new hydrometric equipment at catchments and torrents</p>	<p><b>Indicators:</b> No of consultations on gender responsive hydrometric network expansion. No. of objections to new hydrometric network stations  Number of women participating in consultations  % of women that benefit from work and employment opportunities generated by</p>	<p>Relevant consultations on hydrometric network expansion are not organized and women do not participate</p> <p>Women do not sufficiently benefit from work, employment and income making opportunities generated in implementing these measures</p>	<p><b>Targets:</b> In consultations on hydrometric network expansions at least 5 consultations are held within the first 2 years of the project, 40% are women participate, ensuring that their specific needs and experiences are adequately taken into consideration. No concerns or objections related to expansion of hydrometric equipment. Any complaints made are adequately addressed and resolved through the project complaints/grievance process.</p>	<p>30,000</p>	<p>Year 1 - 2</p>	<p>UNDP project team Water agencies in cooperation with local communities</p>

where it requires community consultation	implementing these measures		At least 30% of women participants have benefited from work, employment, and income making opportunities.			
<p><b>Activity 1.2:</b> Enhance climate-induced flood hazard, risk and vulnerability information for strategic risk management and sound decision making for climate induced flood management.</p> <p><b>Gender Mainstreaming Activities:</b> Datasets for socio-economic risk and vulnerability assessment support gender disaggregated data for analyses and decision-making. Gender Advisor engaged to support gender mainstreaming activities.</p>	<p><b>Indicators:</b> % of women in stakeholder consultations.</p> <p>% Of sex-aggregated socio-economic receptor vulnerability data collected for use in flood socio-economic risk and vulnerability modelling and mapping.</p> <p>% No. of datasets of gender-responsive climate risk information produced and used.</p>	<p>17% women participated in stakeholders' consultations</p> <p>16.6% Flood hazard, risk and vulnerability mapping is gender sensitive (in Vrbas basin only).</p> <p>16.6% gender responsive climate risk information generated</p> <p>Lack of expert support in gender mainstreaming in socio-economic assessment, vulnerability, and risk mapping</p>	<p><b>Targets:</b></p> <p>Gender expert, working as part of UNDP country office will be engaged immediately after project commencement and supported achievement of the following:</p> <p>At least 40% participants of consultations are women.</p> <p>100% Flood hazard, risk and vulnerability mapping is gender responsible.</p> <p>100% of climate risk information generated used in at least 1 sectoral planning document.</p>	192,300 + 452,876 government co-financing	Year 1-3	UNDP project team Water agencies in cooperation with local communities
<b>Activity 1.3:</b> Develop an integrated impact-based centralized and	<b>Indicators:</b> No. of men and women trained in the	0% participated in the development, operation, and	<b>Targets:</b> At least 40% female participants trained in the development,	337,500	Year 1 - 2	UNDP project team Gender centers

community-based flood forecasting and early warning system.  <b>Gender Mainstreaming Activities:</b> Secure equal participation and active role of women and men, in developing of FFEWS; Ensure that training and capacity building programme on EFEWS are engendered; Implement workshops on gender mainstreaming for FFEWS members and policy makers.	development, operation, and maintenance of the integrated centralized and community based FFEWS.	maintenance of the integrated centralized and community based FFEWS.	operation, and maintenance of the integrated centralized and community based FFEWS.  All the training and capacity building programmes in EFEWS are engendered (or gender expert participated in the development and implementation of the trainings and in the programmes.)			
<b>Activity 1.4:</b> Develop and implement protocols and SoPs on data generation, data management and communication for effective impact based FFEWS and flood risk management.  <b>Gender Mainstreaming Activities:</b> Review National protocols and SOPs from gender point of view; Ensure that flood risk information and warnings are adapted to the needs and capabilities of women and other vulnerable groups (Roma women, children, elderly people, disabled, returnees); Develop communication products considering specific needs of man, women and other vulnerable groups, aiming to share information and raise knowledge on FFEWS; Use NGOs networks to reach women and the most vulnerable groups.	<b>Indicators:</b> No. of Gender responsive national protocols and SOPs; Flood risk information and warning messages meeting the needs of women and other vulnerable groups (Roma women, children, elderly people, disabled, returnees). No. Communication products engendered and adapted to the needs of all vulnerable groups.  Number of gender-focused NGOs involved in	Data sharing platform protocol developed for Vrbas and Una-Sana	<b>Targets:</b> Gender responsive national protocols and SOPs developed for data generation, data management and EWS communication. At least 3 different types of flood risk information and warning messages developed to meet the needs of women and other vulnerable groups (Roma women, children, elderly people, disabled, returnees).  At least 2 gender-focused NGO groups engaged developing SoPs and protocols communication, awareness raising, knowledge and information sharing on FFEWS	176,000 _+ 100,000 government co-financing	Year 1 - 4	UNDP project team, water agencies, gender centers

	development of SoPs and protocols on awareness raising, knowledge and information sharing on FFEWS.					
<b>Output 2: Non-structural flood risk reduction measures and nature-based solutions mainstreamed in sectoral policies and plans and effectively contribute to protection of people and livelihoods from climate-induced flood risk.</b> <b>Output 2 statement: <i>Strengthened institutional and regulatory systems and capacity for gender sensitive climate responsive planning and decision-making; Increased climate risk financial resilience of the most vulnerable including women and female-headed households, through the development of a national flood and disaster risk insurance scheme and other risk financing mechanisms;</i></b>						
<b>Activity 2.1:</b> Mainstream climate induced flood risk reduction into sectoral planning (agriculture, hydropower, critical infrastructure) and spatial planning.  <b>Gender mainstreaming Activities:</b> Ensure participation of both men and women, but also representation of vulnerable groups into consultative processes organized to mainstream climate induced flood risk reduction into sectoral planning.  Conduct gender mainstreaming trainings and build capacity of national stakeholders targeted by project and responsible for various disaster risk reduction functions	<b>Indicators:</b> % of FRM decision makers and practitioners are trained on gender mainstreaming in FRM. No. of sectoral planning documents (reviewed by gender advisor) amended to include gender considerations. No. of women/men within the planning teams and consultation groups.	FRM decision makers and practitioners are not trained on gender mainstreaming in FRM  Sectoral planning documents are not consulted with gender advisor	<b>Targets:</b> At least 80% of FRM decision makers and practitioners are trained on gender mainstreaming in FRM. At least 3 sectoral planning documents amended to include gender considerations. Minimum of 40% of less represented gender participated the planning teams and consultation groups.	88,000 + 90,000 government co-financing	Year 2 - 6	UNDP, sectoral ministries, gender centers

<p><b>Activity 2.2:</b> Implement and mainstream new ecosystem-based flood risk reduction and climate change adaptation methods</p> <p><b>Gender mainstreaming Activities:</b> Review of the community based EbA and EbA approaches piloted by the UNDP/SCCF Vrbas River project by gender expert to identify gender gaps, locate mainstreaming opportunities and uncover specific ways in which flood risk and climate change impact women, taking into account gender specific vulnerabilities and intersectional issues (single parenthood, age, income levels, disability, etc.); Mainstreaming of gender throughout all the new ecosystem-based flood risk reduction and climate change adaptation methods (e.g., afforestation, agroforestry) Conduct assessment and make adequate provisions to ensure that women can equally benefit from the work, employment and income making opportunities associated with implementing these measures.</p>	<p><b>Indicators:</b> % of community based EbA approaches that are gender responsive.</p> <p>Gender mainstreaming annex of new EbA methods and guidance documents to be applied in communities.</p> <p>% Of participants in local consultations related to EbA measures are women.</p> <p>% of women benefitting from work, employment and income making opportunities generated by implementing these measures.</p>	<p>EBA FRM measures are not implemented</p> <p>Women insufficiently benefit from work, employment and income making opportunities generated in implementing these measures</p>	<p><b>Targets:</b> 100 % of community based EbA approaches that are gender responsive.</p> <p>Gender mainstreaming annex of new EbA methods and guidance documents to be applied in communities.</p> <p>At least 40% participants in local consultations related to EbA measures are women.</p> <p>At least 30% of women participants have benefited from work, employment and income making opportunities.</p>	<p>8,000</p>	<p>Year 2 - 4</p>	<p>UNDP project team, gender centers, local communities</p>
<p><b>Activity 2.3:</b> Codify and mainstream EbA solutions into policies and regulations and promote non-structural measures.</p> <p><b>Gender mainstreaming Activities:</b> Review of the existing policies and regulations by a gender advisor to identify gender gaps and mainstreaming opportunities; Include</p>	<p><b>Indicators:</b> No. of policies and regulations related to EbA solutions including gender equality considerations and mainstreaming</p>	<p>Lack of policies and regulations related to EbA solutions</p>	<p><b>Targets:</b> Country-wide best-practice guidelines, technical specification, standards, and protocols for the application of ecosystem based non-structural measures include gender equality</p>	<p>63,000 + 90,000 government co-financing</p>	<p>Year 3 - 6</p>	<p>UNDP project teams, gender agencies, water management ministries</p>



gender expert in the teams working on the preparation of new policies, plans and regulations and in promotion of new FRM concepts.			considerations and mainstreaming			
<p><b>Activity 2.4:</b> Review and strengthen institutional capacity and develop long-term institutional capacity development plans for climate resilient FRM.</p> <p><b>Gender mainstreaming Activities:</b> Gender sensitive review of institutional capacity. Participation of Gender expert in development of national training programmes in the technical and practical areas of flood risk management for practitioners, decision-makers, communities, emergency responders;</p>	<p><b>Indicators:</b>  <i>No. of institutions for which assessments of gender equality, and gender responsiveness of FRM is undertaken.</i>  No. of gender-responsive long-term Capacity Development and training FRM plan.  Min % female attendees to training in technical and practical areas of flood risk management for practitioners, decision-makers, communities, emergency responders</p>	<p>Assessments of gender equality, and gender responsiveness of FRM are not implemented for FRM institutions</p> <p>Lack of coherent institutional capacity development framework that embeds FRM and FFEWS capacities into relevant institutions</p>	<p><b>Targets:</b> <i>Assessments of gender equality, and gender responsiveness of FRM is undertaken for all FRM institutions in both entities.</i></p> <p>Gender-responsive long-term Capacity Development and training FRM plan developed for institutions in both entities.</p> <p>At least 40 % female attendance to 3-day training courses in technical and practical areas of flood risk management for practitioners, decision-makers, communities, emergency responders held every year for the first 3 years of project duration,</p>	151,000 + 150,000 Government co-financing	Year 1 – 6	UNDP project team, gender centers, water management ministries
<p><b>Output 3 - Climate-proof flood protection measures scaled-up through new and improved national and local investment frameworks increasing resilience of the most vulnerable groups to climate induced flooding</b></p> <p><b>Output 3 statement:</b> <i>Strengthened adaptive capacity and reduced exposure of the most vulnerable households, in particular female-headed households to climate risk through the implementation of structural, non-structural and EbA flood protection measures</i></p>						

<p><b>Activity 3.1:</b> Develop investment framework for climate induced flood risk reduction and management.</p> <p><b>Gender mainstreaming Activities:</b> Representatives from the Gender mechanisms included in the teams for development of a national investment framework for climate induced floods risk reduction and management; Development of a gender responsive strategy and gender sensitive tools for private sector engagement in long-term climate-proof risk management. Development of risk financing and transfer mechanisms based on detailed gender sensitive assessment on socio-economic risk, damages, and losses.</p>	<p><b>Indicators:</b> Gender responsive national investment framework for combating floods established and integrated into key development strategies/action plans.</p> <p>Ratio of women owner of private companies informed, consulted, and participating and benefitting from the development of the strategies and tools to the development of risk financing and transfer mechanism.</p> <p>Gender responsive socio-economic risk, damages, and losses assessment for the development of risk financing and transfer mechanisms.</p>	<p>Insurance product developed for Vrbas basin applied gender responsive approach</p> <p>Gender mechanisms where not included in the teams for development of insurance products</p> <p>No other private sector investment frameworks in place</p>	<p><b>Targets:</b> Two gender responsive national investment frameworks for combating floods established and integrated into key development strategies/action plans (one for each entity).</p> <p>At least 30% of private companies informed, consulted, and participating and benefitting from the development of the strategies and tools to the development of risk financing and transfer mechanism and women owned.</p> <p>Gender sensitive socio-economic risk, damages, and losses assessment for each basin, for the development of risk financing and transfer mechanisms.</p>	<p>193,400 + private sector co-financing 285,714</p>		<p>UNDP project team, gender institutions, ministries of finance</p>
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<p><b>Activity 3.2:</b> Formulate multi-year climate resilient municipal investment plans and gender responsive community preparedness plans in selected municipalities (10-12) and in one canton.</p> <p><b>Gender mainstreaming Activities:</b> Both, men and women are adequately represented in municipal investment planning process; Men and women actively participate in formulation of community preparedness plans in selected municipalities; Needs of women and other vulnerable (elderly, disabled, children, Roma) groups are incorporated in developed plans.</p>	<p><b>Indicators:</b> No. of gender-responsive municipal investment plans developed. % Of women comprising the community planning teams and consultation groups.</p>	<p>Municipal investment plans are not developed;</p>	<p><b>Targets:</b> 10-12 gender-responsive municipal investment plans developed. 40 % of women comprising the community planning teams and consultation groups</p>	<p>200,000</p>	<p>Year 3- 6</p>	<p>UNDP project team, selected municipalities, gender institutions</p>
<p><b>Activity 3.3:</b> Implement climate-proof structural flood risk reduction and anti-erosion interventions in Vrbas, Una-Sana, Bosna and Drina River basins</p> <p><b>Gender mainstreaming Activities:</b> Both, women and men, and other vulnerable groups (elderly, disabled, children, Roma) are included in processes of stakeholders' consultation related to implementation of climate-proof flood risk measures; Ensure that specific ways in which flood risk and erosion impact women are analyzed and considered. Ensure that women and vulnerable group members can equally benefit from technical assistance ensured with GCF funds, to develop climate proofed designs based on new climate risk information and design methods. Assess and make provisions for women to equally benefit from the</p>	<p><b>Indicators:</b> % women and % men represented in the community consultation groups  % Of women and men involved and benefited from GCF funds and technical assistance.  % Of women that have benefited from the work, employment and income making opportunities associated with implementing these measures.</p>	<p>0%- climate-proof structural flood risk reduction and anti-erosion interventions are not implemented  Women do not proportionately benefit from the work, employment and income making opportunities</p>	<p><b>Targets:</b> at least 40% of less represented gender comprising the community consultation groups;  At least 30% of less represented gender involved and benefited from GCF funds and technical assistance.  At least 50% of women participants have benefited from the work, employment and income making opportunities associated with implementing these measures.</p>	<p>125,000</p>	<p>Year 2 - 6</p>	<p>UNDP project team, water agencies, local communities</p>

work, employment and income making opportunities associated with implementing these measures.						
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# Annex L: UNDP Risk Register

Project Title:					Project Number:		Date: <a href="#">Click or tap to enter a date.</a>	
#	Event	Cause	Impact(s)	Risk Category and Sub-category (including Risk Appetite)	Impact, Likelihood & Risk Level (see Annex 3 Risk Matrix)	Risk From/To Valid	Risk Owner (individual accountable for managing the risk)	Risk Treatment and Treatment Owner
1	There is a risk that Political situation becomes unstable due to local upheavals or regional conflicts	As a result of political tensions between political rivals, right winged parties	Which will impact in...	<b>8. SAFETY AND SECURITY (8.2. Political instability) - UNDP Risk Appetite: CAUTIOUS</b>	Likelihood: <b>2 - Low likelihood</b> Impact: <b>3 - Intermediate</b> Risk level: <b>LOW (equates to a risk appetite of CAUTIOUS)</b>	From: <b>01-Sep-24</b> To: <b>01-Sep-30</b>	CO/PM	Risk Treatment 1.1: The project will develop and implement emergency management/contingency plan in line with UNDP CO's crisis management requirements. This may reduce the level of impact of the risk to medium to low level Risk Treatment Owner: ...CO/PM Risk Treatment 1.2: ... Risk Treatment Owner: ... Risk Treatment 1.3: ... Risk Treatment Owner: ...
2	There is a risk that Extreme hazardous event resulting in damage or destruction to hydrometeorological and/or flood defense	As a result of heavy rainfall due to climate change impacts.	Which will impact in ...	<b>3. OPERATIONAL (3.7. Occupational safety, health and well-being) - UNDP Risk Appetite:</b>	Likelihood: <b>2 - Low likelihood</b> Impact: <b>3 - Intermediate</b> Risk level:	From: <b>01-Sep-24</b> To: <b>01-Sep-30</b>	PM/CO	Risk Treatment 2.1: ...The project will develop and implement emergency management/contingency plan in line with UNDP CO's crisis management requirements. During the planning, design and construction of relevant

	infrastructure, damage to beneficiary communities, and disruption to project implementation, requiring reprogramming of government FRM budgets or implementation delays.			<b>EXPLORATORY TO OPEN</b>	<b>MODERATE (equates to a risk appetite of EXPLORATORY)</b>			infrastructure, disaster risks will be taken into consideration for all stages, and relevant risk mitigation/reduction measures will be put in place. Importantly, the project is designing and implementing climate proofing of infrastructure which should ensure that designs are robust against flood damage and destruction up to the design Standard of Protection. These risk reduction measures will reduce the level of impact and probability that the infrastructure will be destroyed, to minimum level.  Risk Treatment Owner: ... Risk Treatment 2.2: ... Risk Treatment Owner: ... Risk Treatment 2.3: ... Risk Treatment Owner: ...
3	There is a risk that ... Climate adaptation, FRM and DRR do not remain a government priority and therefore	As a result of ...political shift from frm and drr to different priorities.	Which will impact in...	<b>4. ORGANIZATION AL (4.1. Governance) - UNDP Risk Appetite: EXPLORATORY TO OPEN</b>	Likelihood: <b>2 - Low likelihood</b>  Impact: <b>3 - Intermediate</b>  Risk level:	From: 01-Sep-24  To: 01-Sep-30	... PM	Risk Treatment 3.1: ... Risk Treatment Owner: ... Risk Treatment 3.2: ...The project will leverage (and strengthen if necessary) already established strong partnerships with high-

	political, financial and technical support to the project is reduced				<b>MODERATE (equates to a risk appetite of EXPLORATORY)</b>			level government representatives and will carry out lobbying and advocacy campaigns in support of CC adaptation, FRM and DRR. This will reduce the impact of the risk to the minimum level.  Risk Treatment Owner: ... Risk Treatment 3.3: ...  Risk Treatment Owner: ...
4	There is a risk that ...Absorption and operational capacities of project beneficiaries (WAs and HMIs, municipalities etc.) are inadequate to properly run and maintain FRM technologies and systems implemented by the project, after completion	As a result of ...low capacity of relevant stakeholders (due to migration, lack of technical staff ...)	Which will impact in...	<b>3. OPERATIONAL (3.8. Capacities of the partners) - UNDP Risk Appetite: EXPLORATORY TO OPEN</b>	Likelihood: <b>2 - Low likelihood</b>  Impact: <b>3 - Intermediate</b>  Risk level: <b>MODERATE (equates to a risk appetite of EXPLORATORY)</b>	From: 01-Sep-24  To: 01-Sep-30	...	Risk Treatment 4.1: ...The project will pay close attention to the capacity building of all relevant agencies through carrying out training of trainers, on-the-job and field trainings of the staff of relevant agencies, introducing/strengthening internship mechanisms, developing technical guidelines, methodologies and sustainable operations and maintenance plans and embedding ongoing training capacity within relevant institutions. These actions, altogether will reduce the probability and impact of the risk to minimum level. Risk Treatment Owner: ... Risk Treatment 4.2: ... Risk Treatment Owner: ...

								Risk Treatment 4.3: ... Risk Treatment Owner: ...
5	There is a risk that ...Government and private sector unable to meet co-financing and/or O&M commitments to the project (e.g. due to unforeseen budget cuts).	As a result of ...changing priorities in planned activities, budgetary allocations, etc.	Which will impact in...	<b>4. ORGANIZATION AL (4.1. Governance) - UNDP Risk Appetite: EXPLORATORY TO OPEN</b>	<p>Likelihood: <b>2 - Low likelihood</b></p> <p>Impact: <b>3 - Intermediate</b></p> <p>Risk level: <b>MODERATE (equates to a risk appetite of EXPLORATORY)</b></p>	<p>From: <b>01-Sep-24</b></p> <p>To: <b>01-Sep-30</b></p>	CO/PM	<p>Risk Treatment 5.1: ...The project will assist the government authorities to develop and implement sustainable long-term investment planning and will develop risk financing mechanisms which will secure financing for activities in the long-term. Risk Treatment Owner: ...</p> <p>Risk Treatment 5.2: ... Risk Treatment Owner: ...</p> <p>Risk Treatment 5.3: ... Risk Treatment Owner: ...</p>
6	There is a risk that ...Local communities are not interested to be engaged in CBEWS and community based EbA processes	As a result of ...lack of knowledge about benefits of CBEWS and EBA measures.	Which will impact in...	<b>3. OPERATIONAL (3.5. Partners' engagement) - UNDP Risk Appetite: EXPLORATORY TO OPEN</b>	<p>Likelihood: <b>2 - Low likelihood</b></p> <p>Impact: <b>3 - Intermediate</b></p> <p>Risk level: <b>MODERATE (equates to a risk appetite of EXPLORATORY)</b></p>	<p>From: <b>01-Sep-24</b></p> <p>To: <b>01-Sep-30</b></p>	... PM	<p>Risk Treatment 6.1: ...The project will conduct extensive awareness campaign at municipal and community level on the climate-induced flood hazards, vulnerabilities and risks and benefits for reducing these risks. It will also make significant efforts to mobilize and empower local communities in CBEWS and CB-EbA. This will reduce the impact and probability of the risk to the minimum. Risk Treatment Owner: ...</p>



								Risk Treatment 6.2: ... Risk Treatment Owner: ...
								Risk Treatment 6.3: ... Risk Treatment Owner: ...
7	There is a risk that ...COVID 19	As a result of ...global pandemic.	Which will impact in...	<b>8. SAFETY AND SECURITY (8.6. Natural hazards) - UNDP Risk Appetite: CAUTIOUS</b>	<p>Likelihood: <b>3 - Moderately likely</b></p> <p>Impact: <b>4 - Extensive</b></p> <p>Risk level: <b>LOW (equates to a risk appetite of CAUTIOUS)</b></p>	<p>From: 01-Sep-24</p> <p>To: 01-Sep-30</p>	...	<p>Risk Treatment 7.1: ...The world is currently suffering from the COVID19 pandemic, and B&amp;H is no exception. As a highly transmissible infectious virus, COVID 19 represents a risk whenever mass gatherings, close working conditions or physical contact occurs involving people infected with the virus.</p> <p>'COVID safe' practices are to be adopted by the project. Compliance with directives of WHO and Ministry of Health must occur and all efforts to reduce the risk of spread will be taken. The project itself does not represent a significant risk, but given the high transmissibility of COVID, any activity that brings people together needs to be treated as risky and appropriate precautions taken.</p> <p>Risk Treatment Owner: ...</p>
8	There is a risk that ...The complex institutional structure and	As a result of ...lack of relevant progress	Which will impact in...	<b>7. STRATEGIC (7.3. Stakeholder relations and</b>	<p>Likelihood: <b>3 - Moderately likely</b></p> <p>Impact:</p>	<p>From: 01-Sep-24</p> <p>To: 01-Sep-30</p>	CO/PM	<p>Risk Treatment 8.1: ...Close collaboration with relevant stakeholders from the outset and by</p>

	division of authorities and responsibilities between the state government, the two entities in B&H, the line ministries of both entities, and the municipal authorities and the different management arrangements for FRM according to the category of river and type, might present implementation and coordination challenges to the targeted project activities.	strategy, lost of focus, etc ...		partnerships) - UNDP Risk Appetite: OPEN TO SEEKING	<b>3 - Intermediate</b>  Risk level: <b>MODERATE (equates to a risk appetite of EXPLORATORY)</b>			determining collaborative strategies and focal points in each of the key institutions for the Project Board. The project implementation team and UNDP will use the relevant experience from the previous projects and will rely on the Stakeholder Engagement Plan to make sure that the institutional barriers are tackled timely and efficiently. The project activities (1.3,1.4,2.4) will improve institutional capacities, information and coordination for FRM thus reducing institutional vulnerability and reducing the risk. Risk Treatment Owner: ...
9	There is a risk that ...Project engage with entities or individuals listed on UN sanctions	As a result of Inadequate Due Diligence: Failure to properly vet partners, suppliers, or clients against UN sanctions lists can lead to unintended engagements with sanctioned entities or individuals.	Which will impact in...	<b>3. OPERATIONAL (3.5. Partners' engagement) - UNDP Risk Appetite: EXPLORATORY TO OPEN</b>	Likelihood: <b>2 - Low likelihood</b>  Impact: <b>3 - Intermediate</b>  Risk level: <b>MODERATE (equates to a risk appetite of EXPLORATORY)</b>	From: 01-Sep-24 To: 01-Sep-30	CO/PM	Risk Treatment 9.1: ... This project is implemented by UNDP under the Direct Implementation Modality (DIM) and will be guided by UNDP's policy framework. UNDP, by virtue of being an organ of the United Nations and therefore being part of the same entity, is also beholden to the principles on countering the financing of terrorism. UNDP systematically screens all entities being considered to be

		Lack of Awareness; Complex Supply Chains; Deliberate Evasion:						contracted by or partner with UNDP against the Consolidated UN Security Council Sanctions List ( <a href="https://www.un.org/securitycouncil/content/un-sc-consolidated-list">https://www.un.org/securitycouncil/content/un-sc-consolidated-list</a> ). UNDP Country Office in B&H will be responsible for screening all entities or individuals against the Consolidated UN Security Council Sanctions List before engaging with them for the project. Risk Treatment Owner: ...
10	There is a risk of Money laundering and terrorist financing risks	As a result of Illicit Activities; Weak Regulatory Frameworks; Complex Financial Systems; Anonymous Transactions; Corruption and Insider Collusion	Which will impact in...	<b>5. REPUTATIONAL (5.6. Exposure to entities involved in money laundering and terrorism financing) - UNDP Risk Appetite: CAUTIOUS</b>	Likelihood: <b>2 - Low likelihood</b>  Impact: <b>3 - Intermediate</b>  Risk level: <b>LOW (equates to a risk appetite of CAUTIOUS)</b>	From: 01-Sep-24  To: 01-Sep-30	CO/PM	Risk Treatment 10.1: ... . This project is implemented by UNDP under the Direct Implementation Modality (DIM) and will be guided by UNDP's policy framework. UNDP, by virtue of being an organ of the United Nations and therefore being part of the same entity, is also beholden to the principles on countering the financing of terrorism. UNDP systematically screens all entities being considered to be contracted by or partner with UNDP against the Consolidated UN Security Council Sanctions List. Please refer to the UN Security Council

								Consolidated Sanctions List available at <a href="https://www.un.org/securitycouncil/content/un-sc-consolidated-list">https://www.un.org/securitycouncil/content/un-sc-consolidated-list</a> for the latest information on sanctions. Risk Treatment Owner: ...
11	There is a risk of Prohibited Practices Risks	As a result of various factors, including: Non-Compliance: Engaging in activities that do not comply with legal or regulatory requirements; Ethical Violations; Inadequate Oversight of activities; Lack of Awareness; Intentional Misconduct; Poor Risk Management;	Which will impact in...	<b>2. FINANCIAL (2.3. Corruption and fraud) - UNDP Risk Appetite: MINIMAL TO CAUTIOUS</b>	<p>Likelihood: <b>2 - Low likelihood</b></p> <p>Impact: <b>3 - Intermediate</b></p> <p>Risk level: <b>LOW (equates to a risk appetite of CAUTIOUS)</b></p>	<p>From: 01-Sep-24</p> <p>To: 01-Sep-30</p>	CO/PM	<p>Risk Treatment 11.1: ... UNDP applies a zero tolerance policy in relation to fraud and corruption. The guiding principles of UNDP's commitment to prevent, identify and address all acts of fraud and corruption have been laid out in the UNDP Policy against Fraud and Corrupt Practices (the "FCP Policy"), which applies to all activities and operations of UNDP, including projects and programmes. The fundamental principles of UNDP's FCP Policy serve as the basis for and are integrated in UNDP's policy frameworks in relation to procurement, financial management, internal control and accountability and staff rules and regulations. Under the terms of the FCP Policy and related policies, UNDP has a commitment, when developing a new</p>

								<p>programme or project, to ensure that risks related to fraud and corrupt practices are fully identified and considered in the programme/project design and processes and that adequate and effective measures to mitigate such risks are put in place. In this light, the processes and requirements for UNDP's partnership capacity assessment (PCAT) require UNDP to carry out a thorough due diligence of the risks in relation to the programme/project it intends to engage in, as well as in relation to the potential partners who will be involved in the implementation of such programmes/projects. Such capacity assessments include, among other things, a screening of all entities being considered to be contracted by or partner with UNDP against the Consolidated UN Security Council Sanctions List (to which UNDP, by virtue of being an organ of the United Nations and therefore being part of the same entity, is also beholden), an assessment of any history of fraud,</p>
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								<p>corruption or other fraudulent practices and/or potential conflicts of interest. Based on this capacity assessment, UNDP then builds an internal control component into the design of the project and ensures that the financial management of the programme/project contains adequate safeguards to prevent, monitor and address any risks and acts of fraud, corruption or AML/CFT that may be identified.</p> <p>Risk Treatment Owner: ...</p> <p>Risk Treatment 11.2: ...</p> <p>Risk Treatment Owner: ...</p> <p>Risk Treatment 11.3: ...</p> <p>Risk Treatment Owner: ...</p>
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**Annex P: UNDP Project Quality Assurance Report (to be completed in UNDP Quantum+ and the printout to be attached to the project document)**

ASM-11039 - Quality Assurance - Design

Procedure Year: 2024

Overall Project Risk Categorization: ● Highly Satisfactory

Procedure Status: Approved

Procedure Name: ASM-11039

Procedure Department: CO - Bosnia & Herzegovina- Sarajevo

Procedure Type: Design

Record Owner: Alisa Grabus

Created by: Alisa Grabus,9/17/2024, 10:34 AM

Last Modified by: Raduska Cupac,11/4/2024, 4:08 PM

Decision:

QA Summary/Project Board Comments:

RELATED PROJECTS(1)					
NAME	DEPARTMENT	STATUS	ATLAS PROJECT NUMBER	START DATE	END DATE
01003140	CO - Bosnia & Herzegovina- Sarajevo	Draft		10/17/2024	10/17/2030

RELATED SESPS(1)		
PARENT PROCEDURE	PROCEDURE TYPE	PROCEDURE YEAR
ASM-11210	SESP (Social and Environmental Screening Procedure)	2024

Approval History

Approval Date: Mon Nov 04 00:00:00 GMT 2024

Approved By: Raduska Cupac <raduska.cupac@undp.org>

APPROVAL HISTORY			
STEP NAME	DATE	STATUS	ASSIGNED TO
Submitted for Approval	2024-11-04 16:08:53	Approved	Raduska Cupac
Approval Request Submitted	2024-11-04 15:51:16	Started	Alisa Grabus

QA Questionnaire:



Strategic

Status: Complete

Quality Rating: Exemplary

**1. Does the project specify how it will contribute to higher level change through linkage to the programme's Theory of Change?**

- ☒ 3: The project is clearly linked to the programme's theory of change. It has an explicit change pathway that explains how the project will contribute to outcome level change and why the project's strategy will likely lead to this change. This analysis is backed by credible evidence of what works effectively in this context and includes assumptions and risks.
- ☐ 2: The project is clearly linked to the programme's theory of change. It has a change pathway that explains how the project will contribute to outcome-level change and why the project strategy will likely lead to this change.
- ☐ 1: The project document may describe in generic terms how the project will contribute to development results, without an explicit link to the programme's theory of change.

**\*Note:** Projects not contributing to a programme must have a project-specific Theory of Change. See alternative question under the information icon for these cases.

**\*Note:** Risk management must be done for criteria with score of 1.

**Evidence (Enter a short explanation or upload a document that provides evidence for your response)**

The theory of change is elaborated on in Section III, Strategy of the Project Document attached hereto as evidence.

Namely, in the adaptation alternative, this Project will support the commitment of the B&H government to avoid losses of lives and to reduce economic and infrastructure losses caused by climate-induced flood disasters by implementing the project's Theory of Change described below. The project will scale-up technological, institutional and financial innovation in flood risk management through nation-wide implementation of fully integrated FFEWS based on state-of-the-art modeling technologies, mainstreaming of flood risk into key sectoral policies, mainstreaming nature-based solutions to flood risk management into FRM policy and practice, engaging private sector, promoting new risk financing tools, embedding risk-informed municipal investment planning approaches and implementation of priority flood risk reduction measures in the highest risk communities.

**2. Is the project aligned with the UNDP Strategic Plan?**

- ☒ 3: The project responds to at least one of the development settings as specified in the Strategic Plan and adapts at least one Signature Solution. The project's RRF includes all the relevant SP output indicators. (all must be true)
- ☐ 2: The project responds to at least one of the development settings as specified in the Strategic Plan. The project's RRF includes at least one SP output indicator, if relevant. (both must be true)
- ☐ 1: The project responds to a partner's identified need, but this need falls outside of the UNDP Strategic Plan. Also select this option if none of the relevant SP indicators are included in the RRF.

**\*Note:** Risk management must be done for criteria with score of 1.

**Evidence (Enter a short explanation or upload a document that provides evidence for your response)**

The project is aligned with new UNDP SP <https://www.undp.org/publications/undp-strategic-plan-2022-2025>. It corresponds to 2 of 6 signature solutions, namely a) Resilience and b) Environment. RRF includes relevant SP indicator, for evidence please see Section VI of the Project Document.

**3. Is the project linked to the programme outputs? (i.e., UNSDCF/CPD, RPD or Strategic Plan IRRF for strategic interventions not part of a programme)**

- ☒ YES
- ☐ NO

**\*Note:** Project QA cannot be approved by Project QA Approver when the response is "No".

**Evidence (Enter a short explanation or upload a document that provides evidence for your response)**

The Project contributes to the United Nations Sustainable Development Cooperation Framework (UNSDCF) 2021-2025 in BiH, notably to Outcome 1 "By 2025, people benefit from resilient, inclusive and sustainable growth ensured by the convergence of economic development, and management of environment and cultural resources". There is also evidence in Quantum that the Project is linked to the CPD 2021-2025, Output 1.2. Governments at all levels, particularly sub-national governments, implement climate change adaptation and mitigation measures for resilient and sustainable development.

Relevant

Status: Complete

Quality Rating: Exemplary

**4. Does the project identify target groups , and particularly those marginalized, vulnerable, and left further behind (LNOB)?**

- ☒ 3: The target groups are clearly specified, prioritizing those left furthest behind, identified through a rigorous process based on evidence.
- ☐ 2: The target groups are clearly specified, prioritizing those left furthest behind.
- ☐ 1: The target groups are not clearly specified.

**\*Note:** Risk management must be done for criteria with score of 1. Projects that build institutional capacity should still identify target groups to justify support.

**Evidence (Enter a short explanation or upload a document that provides evidence for your response)**

As evident in throughout several sections of the Project document, e.g. Strategy, Governance and Management arrangements, RRF, Gender Analysis, SESP, the that the entire intervention was design according to the needs of vulnerable and people at risk.

**5. Have knowledge, good practices, and past lessons learned of UNDP and others informed the project design?**

- ☒ 3: Knowledge and lessons learned backed by credible evidence from sources such as evaluation, corporate policies/strategies, and/or monitoring have been explicitly used, with appropriate referencing, to justify the approach used by the project.
- ☐ 2: The project design mentions knowledge and lessons learned backed by evidence/sources but have not been used to justify the approach selected.
- ☐ 1: There is little, or no mention of knowledge and lessons learned informing the project design. Any references made are anecdotal and not backed by evidence.

**\*Note:** Risk management must be done for criteria with score of 1.

**Evidence (Enter a short explanation or upload a document that provides evidence for your response)**

There is evidence under Section IV, Results and Partnerships, that the Project considered best practices, upscale potential and gap filling in relation to 8 relevant projects implemented in Bosnia and Herzegovina. Para 26 includes overview with detailed analysis of each of those projects and its possible correlation to this Project.

**6. Does UNDP have a clear advantage to engage in the role envisioned by the project vis-à-vis national / regional / global partners and other actors?**

- ☒ 3: An analysis has been conducted on the role of other partners in the area where the project intends to work, and credible evidence supports the proposed engagement of UNDP and partners through the project, including identification of potential funding partners. It is clear how results achieved by partners will complement the project's intended results and a communication strategy is in place to communicate results and raise visibility vis-à-vis key partners. Options for south-south and triangular cooperation have been considered, as appropriate. (all must be true)
- ☐ 2: Some analysis has been conducted on the role of other partners in the area where the project intends to work, and relatively limited evidence supports the proposed engagement of and division of labour between UNDP and partners through the project, with unclear funding and communications strategies or plans.

- ☐ 1: No clear analysis has been conducted on the role of other partners in the area that the project intends to work. There is risk that the project overlaps and/or does not coordinate with partners' interventions in this area. Options for south-south and triangular cooperation have not been considered, despite its potential relevance.

**\*Note:** Risk management must be done for criteria with score of 1.

**Evidence (Enter a short explanation or upload a document that provides evidence for your response)**

National Designated Authority for Green Climate Fund in Bosnia and Herzegovina issued No Objection Letter (NOL, attached hereto as evidence) to UNDP BIH for implementation of this Project trusting the project success is ensured through UNDP's comparative advantage vis-à-vis national / regional / global partners and other actors. In addition to NOL evidence can also be found in comprehensive Stakeholders Engagement Plan.

Principled

Status: Complete

Quality Rating: Exemplary

#### 7. Does the project apply a human rights-based approach?

- ☒ 3: The project is guided by human rights and incorporates the principles of accountability, meaningful participation, and non-discrimination in the project's strategy. The project upholds the relevant international and national laws and standards. Any potential adverse impacts on enjoyment of human rights were rigorously identified and assessed as relevant, with appropriate mitigation and management measures incorporated into project design and budget. (all must be true)
- ☐ 2: The project is guided by human rights by prioritizing accountability, meaningful participation and non-discrimination. Potential adverse impacts on enjoyment of human rights were identified and assessed as relevant, and appropriate mitigation and management measures incorporated into the project design and budget. (both must be true)
- ☐ 1: No evidence that the project is guided by human rights. Limited or no evidence that potential adverse impacts on enjoyment of human rights were considered

**\*Note:** Risk management must be done for criteria with score of 1.

**Evidence (Enter a short explanation or upload a document that provides evidence for your response)**

The Project Document clearly specifies inclusive, participatory processes will include local governments which will reach out to local communities and manage expectations, while also contributing to strengthening government legitimacy. The dialogues will increase coordination and possible joint or coordinated implementation of activities and increase accountability by authorities to all the community members, irrespective of their ethnic belonging or their gender. Potential adverse impacts on enjoyment of human rights were identified and assessed through SESP.

#### 8. Does the project use gender analysis in the project design?

- ☒ 3: A participatory gender analysis has been conducted and results from this gender analysis inform the development challenge, strategy and expected results sections of the project document. Outputs and indicators of the results framework include explicit references to gender equality, and specific indicators measure and monitor results to ensure women are fully benefitting from the project. (all must be true)
- ☐ 2: A basic gender analysis has been carried out and results from this analysis are scattered (i.e., fragmented and not consistent) across the development challenge and strategy sections of the project document. The results framework may include some gender sensitive outputs and/or activities but gender inequalities are not consistently integrated across each output. (all must be true)
- ☐ 1: The project design may or may not mention information and/or data on the differential impact of the project's development situation on gender relations, women and men, but the gender inequalities have not been clearly identified and reflected in the project document.

**\*Note:** Risk management must be done for criteria with score of 1.

**Evidence (Enter a short explanation or upload a document that provides evidence for your response)**



In the Project document, almost all sections refer to gender equality aspects, and in the Annex K: Gender Analysis and in Section VI, the Result Framework, there is strong evidence that the gender analysis has been carried out for design of the Project.

This project is an example of how gender equality can be systematically integrated, as it has been planned and incorporated into all phases from the very beginning. Gender equality aligns with the project objectives as well as with the Gender Equality Action Plan of BiH 2023–2027.

An approach based on involving women as active agents of change has been developed within our office, and this project has the capacity to implement it.

**9. Did the project support the resilience and sustainability of societies and/or ecosystems?**

- ☒ 3: Credible evidence that the project addresses sustainability and resilience dimensions of development challenges, which are integrated in the project strategy and design. The project reflects the interconnections between the social, economic and environmental dimensions of sustainable development. Relevant shocks, hazards and adverse social and environmental impacts have been identified and rigorously assessed with appropriate management and mitigation measures incorporated into project design and budget. (all must be true)
- ☐ 2: The project design integrates sustainability and resilience dimensions of development challenges. Relevant shocks, hazards and adverse social and environmental impacts have been identified and assessed, and relevant management and mitigation measures incorporated into project design and budget. (both must be true)
- ☐ 1: Sustainability and resilience dimensions and impacts were not adequately considered.

**\*Note:** Risk management must be done for criteria with score of 1.

**Evidence (Enter a short explanation or upload a document that provides evidence for your response)**

As this project is specifically addressing resilience dimensions of development challenges, these aspects are fully integrated in the project's strategy and design. Social and environmental aspects of the Project are assessed through SESP.

**10. Has the Social and Environmental Screening Procedure (SESP) been conducted to identify potential social and environmental impacts and risks? The SESP is not required for projects in which UNDP is Administrative Agent only and/or projects comprised solely of the preparation and dissemination of reports and communication materials; organization of events, workshops, or training; strengthening capacities of partners to participate in international negotiations and conferences; partnership coordination (including UN coordination) and management of networks; and global/regional projects with no country-level activities as well as Development Effectiveness projects and Institutional Effectiveness projects. [If yes, upload the completed checklist. If SESP is not required, Select all exemption criteria that apply.]**

- ☒ Yes
- ☐ No
- ☐ SESP not required because project consists solely of (Select all exemption criteria that apply)

**\*Applicable only to option "SESP not required"**

- ☐ 1: Preparation and dissemination of reports, documents and communication materials
- ☐ 2: Organization of an event, workshop, training
- ☐ 3: Strengthening capacities of partners to participate in international negotiations and conferences
- ☐ 4: Partnership coordination (including UN coordination) and management of networks
- ☐ 5: Global/regional projects with no country level activities (e.g. knowledge management, inter-governmental processes)
- ☐ 6: UNDP acting as Administrative Agent
- ☐ 7: Development Effectiveness projects and Institutional Effectiveness projects

**\*Note:** Project QA cannot be approved by Project QA Approver when the response is "No".

**Evidence (Enter a short explanation or upload a document that provides evidence for your response)**

Completed SESP procedure 11210 and also offline form uploaded as evidence.

Management &amp; Monitoring

Status: Complete

Quality Rating: Highly Satisfactory

### 11. Does the project have a strong results framework?

- ☒ 3: The project's selection of outputs and activities are at an appropriate level. Outputs are accompanied by SMART, results-oriented indicators that measure the key expected development changes, each with credible data sources and populated baselines and targets, including gender sensitive, target group focused, sex-disaggregated indicators where appropriate. (all must be true)
- ☐ 2: The project's selection of outputs and activities are at an appropriate level. Outputs are accompanied by SMART, results-oriented indicators, but baselines, targets and data sources may not yet be fully specified. Some use of target group focused, sex-disaggregated indicators, as appropriate. (all must be true)
- ☐ 1: The project's selection of outputs and activities are not at an appropriate level; outputs are not accompanied by SMART, results-oriented indicators that measure the expected change and have not been populated with baselines and targets; data sources are not specified, and/or no gender sensitive, sex-disaggregation of indicators. (if any is true)

\*Note: Risk management must be done for criteria with score of 1.

#### Evidence (Enter a short explanation or upload a document that provides evidence for your response)

The Project document has a result framework with all required elements, for evidence please refer to the Section VI: Result framework.

### 12. Is the project's governance mechanism clearly defined in the project document, including composition of the project board?

- ☐ 3: The project's governance mechanism is fully defined. Individuals have been specified for each position in the governance mechanism (especially all members of the project board.) Project Board members have agreed on their roles and responsibilities as specified in the terms of reference. The ToR of the project board has been attached to the project document. (all must be true)
- ☒ 2: The project's governance mechanism is defined; specific institutions are noted as holding key governance roles, but individuals may not have been specified yet. The project document lists the most important responsibilities of the project board, project director/manager and quality assurance roles. (all must be true)
- ☐ 1: The project's governance mechanism is loosely defined in the project document, only mentioning key roles that will need to be filled at a later date. No information on the responsibilities of key positions in the governance mechanism is provided.

\*Note: Risk management must be done for criteria with score of 1.

#### Evidence (Enter a short explanation or upload a document that provides evidence for your response)

Project's governance mechanism is defined in the Project document, Section VIII. Governance and management arrangements.

### 13. Have the project risks been identified using the risk assessment tools (Project Quality Assurance, Social and Environmental Screening Procedure, Partner Capacity Assessment Tool, Harmonized Approach to Cash Transfer, Private Sector Due Diligence, etc., if applicable), with clear plans stated to manage and mitigate each risk?

- ☒ 3: Project risks related to the achievement of results are fully described in the project risk register, based on comprehensive analysis drawing on the programme's theory of change, Social and Environmental Standards and screening, situation analysis, capacity assessments and other analysis such as funding potential and reputational risk. Risks have been identified through a consultative process with key internal and external stakeholders, including consultation with the UNDP Security Office as required. Clear and complete plan in place to manage and mitigate each risk, including security risks, reflected in project budgeting and monitoring plans. (both must be true)
- ☐ 2: Project risks related to the achievement of results are identified in the initial project risk register based on a minimum level of analysis and consultation, with mitigation measures identified for each risk.

- ☐ 1: Some risks may be identified in the initial project risk register, but no evidence of consultation or analysis and no clear risk mitigation measures identified. This option is also selected if risks are not clearly identified, no initial risk log is included with the project document and/or no security risk management process has taken place for the project.

**\*Note:** Risk management must be done for criteria with score of 1.

**Evidence (Enter a short explanation or upload a document that provides evidence for your response)**

Project risks related to the achievement of results are fully described in the project risk register, based on comprehensive analysis drawing on the programme's theory of change, Social and Environmental Standards and screening, situation analysis, capacity assessments and other analysis such as funding potential and reputational risk. For evidence, please see Annex L, but also SES and ESMF.

Efficient

Status: Complete

Quality Rating: **Highly Satisfactory**

**14. Have specific measures for ensuring cost-efficient use of resources been explicitly mentioned as part of the project design?**

- ☒ Yes  
☐ No

**\*Note:** Risk management must be done when the response is "No".

**Evidence (Enter a short explanation or upload a document that provides evidence for your response)**

Please refer to the Project document, Section V: Cost Efficiency and Effectiveness.

**15. Is the budget justified and supported with valid estimates?**

- ☒ 3: The project's budget is at the activity level with funding sources, and is specified for the duration of the project period in a multi-year budget. Realistic resource mobilisation plans are in place to fill unfunded components. Costs are supported with valid estimates using benchmarks from similar projects or activities. Cost implications from inflation and foreign exchange exposure have been estimated and incorporated in the budget. Adequate costs for monitoring, evaluation, communications and security have been incorporated.
- ☐ 2: The project's budget is at the activity level with funding sources, when possible, and is specified for the duration of the project in a multi-year budget, but no funding plan is in place. Costs are supported with valid estimates based on prevailing rates.
- ☐ 1: The project's budget is not specified at the activity level, and/or may not be captured in a multi-year budget.

**\*Note:** Risk management must be done for criteria with score of 1.

**Evidence (Enter a short explanation or upload a document that provides evidence for your response)**

Detailed budget outline, including cofinancing for all project activities and entire duration of the Project are presented in the Project document, Section X.

**16. Is the Country Office / Regional / Global Project fully recovering the costs involved with project implementation?**

- ☐ 3: The budget fully covers all project costs that are attributable to the project, including programme management and development effectiveness services related to strategic country programme planning, quality assurance, pipeline development, policy advocacy services, finance, procurement, human resources, administration, issuance of contracts, security, travel, assets, general services, information and communications based on full costing in accordance with prevailing UNDP policies (i.e., UPL, LPL).
- ☒ 2: The budget covers significant project costs that are attributable to the project based on prevailing UNDP policies (i.e., UPL, LPL) as relevant.
- ☐ 1: The budget does not adequately cover project costs that are attributable to the project, and UNDP is cross-subsidizing the project.



**\*Note:** Risk management must be done for criteria with score of 1. The budget must be revised to fully reflect the costs of implementation before the project commences.

**Evidence (Enter a short explanation or upload a document that provides evidence for your response)**

Detailed budget outline, including cofinancing for all project activities and entire duration of the Project are presented in the Project document, Section X.

Effective

Status: Complete

Quality Rating: **Highly Satisfactory**

**17. Have target groups, and particularly those marginalized, vulnerable, and left further behind (LNOB), been engaged in the design of the project?**

- ☒ 3: Credible evidence that all target groups, prioritising discriminated, vulnerable, and marginalized segments of the population that will be involved in or affected by the project, have been actively engaged in the design of the project. The project has an explicit strategy to identify, engage, and ensure the meaningful participation of target groups as stakeholders throughout the project, including through monitoring and decision-making (e.g., representation on the project board, inclusion in samples for evaluations, etc.)
- ☐ 2: Some evidence that key target groups have been consulted in the design of the project.
- ☐ 1: No evidence of engagement with target groups during project design.
- ☐ Not Applicable

**\*Note:** Risk management must be done for criteria with score of 1.

**Evidence (Enter a short explanation or upload a document that provides evidence for your response)**

There is credible evidence in the Stakeholder Engagement Plan Public Consultation that all target groups, prioritizing discriminated, vulnerable, and marginalized segments of the population that will be involved in or affected by the project, have been actively engaged in the design of the project. See Annexes I and J for more details.

**18. Does the project plan for adaptation and course correction if regular monitoring activities, evaluation, and lesson learned demonstrate there are better approaches to achieve the intended results and/or circumstances change during implementation?**

- ☒ Yes
- ☐ No

**\*Note:** Risk Management must be done when the response is "No".

**Evidence (Enter a short explanation or upload a document that provides evidence for your response)**

The Project has its Monitoring and Evaluation Plans.

**19. The gender marker for all project outputs are scored at GEN2 or GEN3, indicating that gender has been fully mainstreamed into all project outputs at a minimum.**

- ☒ Yes
- ☐ No

**\*Note:** Risk management must be done when the response is "No".

**Evidence (Enter a short explanation or upload a document that provides evidence for your response)**

The Project is scored GEN2.

**20. Have societal digital risks and opportunities been taken into account when designing the project's approach and have digital or data technology solutions been considered to enhance the efficiency, effectiveness and scalability of project results?**

- ☐ 3: To the extent possible, societal digital risks and opportunities have been investigated when designing the strategy and Theory of Change, and the potential use of digital or data technologies in project activities has been considered in line with UNDP's digital standards and data principles. (All must be true)
- ☒ 2: Only the potential use of digital or data solutions in project activities has been considered in line with UNDP's digital standards and data principles, but there is no or limited evidence that aspects of inclusive digital societies have been considered in the design of the strategy or Theory of Change.
- ☐ 1: Neither societal digital risks and opportunities, nor digital or data technology solutions were specifically considered in the project design or, UNDP's digital standards and data principles are not taken into account when intending to use digital or data technology solutions in project activities.
- ☐ Digital considerations are not relevant to this project.

**\*Applicable only to option "Digital considerations are not relevant"**

- ☐ 1: Societal digital transformation is not a government or contextual priority
- ☐ 2: A non-digital approach yields higher effectiveness and efficiency
- ☐ 3: Other (specify in the "Evidence" section)

**\*Note: Risk management must be done for criteria with score of 1.**

**Evidence (Enter a short explanation or upload a document that provides evidence for your response)**

There is evidence in the Project document that the Project has relatively strong digital considerations. Under Section IV. Results and Partnerships several digital solutions are described that will be developed within the Project e.g. enhancing technologies for hydrometric monitoring, early warning systems development, enhancing hazard and risk modelling, etc.

Sustainability & National Ownership

Status: Complete

Quality Rating: **Highly Satisfactory**

**21. Have national / regional / global partners led, or proactively engaged in, the design of the country / regional / global project, respectively?**

- ☒ 3: National / regional / global partners have full ownership of the country / regional / global project and led the process of the development of the project jointly with UNDP.
- ☐ 2: The project has been developed by UNDP in close consultation with national / regional / global partners.
- ☐ 1: The project has been developed by UNDP with limited or no engagement with national partners.

**\*Note: Risk management must be done for criteria with score of 1.**

**Evidence (Enter a short explanation or upload a document that provides evidence for your response)**

As the Project includes different sources of cofinancing, all parties that committed to be involved have been and will be continuously consulted and their actions integrated. Hence, there is strong ownership of partners at all levels. For evidence see Cofinancing letters, Annex D.

**22. Are key institutions and systems identified, and is there a strategy for strengthening specific / comprehensive capacities based on capacity assessments conducted?**

- ☐ 3: The project has a strategy for strengthening specific capacities of national institutions and/or actors based on a completed capacity assessment. This strategy includes an approach to regularly monitor national capacities using clear indicators and rigorous methods of data collection, and adjust the strategy to strengthen national capacities accordingly.
- ☒ 2: A capacity assessment has been completed. There are plans to develop a strategy to strengthen specific capacities of national institutions and/or actors based on the results of the capacity assessment.
- ☐ 1: Capacity assessments have not been carried out



☐ Not Applicable

**\*Note: Risk management must be done for criteria with score of 1.**

**Evidence (Enter a short explanation or upload a document that provides evidence for your response)**

Capacities of project partners were assessed at design stage of funding proposal. Plans to develop a strategy to strengthen specific capacities of national institutions and/or actors will be developed at the inception phase since capacities development is one of the most important activities within the Project.

**23. Is there is a clear strategy embedded in the project specifying how the project will use national systems (i.e., procurement, monitoring, evaluations, etc.,) to the extent possible?**

☒ Yes  
☐ No  
☐ Not Applicable

**\*Note: Risk management must be done when the response is "No".**

**Evidence (Enter a short explanation or upload a document that provides evidence for your response)**

The project is using Direct Implementation Modality (DIM).

**24. Is there a clear transition arrangement / phase-out plan developed with key stakeholders in order to sustain or scale up results (including resource mobilisation and communications strategy)?**

☒ Yes  
☐ No

**\*Note: Risk management must be done when the response is "No".**

**Evidence (Enter a short explanation or upload a document that provides evidence for your response)**

Project's sustainability plan is outlined in the Project document, Section IV, explained Sustainability plan and exit strategy in details as one of the embedded element in design and implementation.

## Annex Q: Monitoring Activity Table

Monitoring Activity	Indicators	Targets		Description of indicators and targets	Data source/Collection Methods <sup>114</sup>	Frequency	Responsible for data collection
Fund Level Impact from the results framework		Midterm	End				
	IRMF Core Indicator - Core 2: Direct and indirect beneficiaries reached	Direct: 399,723 (203,858 women, 195,864 men)  Indirect: 998,622 people (0.505 million women; 0.485 million men)	Direct: 799,445 people (407,717 women, 391,728 men)  Indirect: 1,977,244 people (1.01 million women; 0.969 million men)	Number of overall direct and indirect beneficiaries of the Project	Periodic condition inspection and performance evaluation reports of Water Agencies and Hydrometeorological Institutes of structural, non-structural and EBA measures and of the FFEWS. Independent evaluation of the operations and performance of the impact based FFEWS; independent evaluation reports; project reports. Methodology for estimating adaptation beneficiaries is summarised in Annex 22. Based on PFRA hazard maps combined with physical and socio-economic data for all receptors, socio-economic risk modelling has been undertaken to estimate the beneficiaries of the project under baseline and climate change (2050) scenarios for each of the five most vulnerable sub-	Annually	Project team

<sup>114</sup> Data collection methods should outline specific tools used to collect data and additional information as necessary to support monitoring. The PIR cannot be used as a source of verification.

Monitoring Activity	Indicators	Targets		Description of indicators and targets	Data source/Collection Methods <sup>114</sup>	Frequency	Responsible for data collection
					<p>basins in B&amp;H (Una-Sana, Vrbas, Bosna, in the Sava basin, and Neretva and Trebišnjica in the Adriatic Sea basin) . The modeling shows that 799,445 people and 272,811 households are currently at risk from floods. Under climate change, by 2050 the number of affected people and households will increase to 902,906 people and 306,907 households. A conservative estimate of 799,445 beneficiaries (i.e. present day population at risk) is used as this is the number that will benefit by the end of the 6- year GCF project.</p> <p>The maximum indirect beneficiaries is estimated as the rest of the population, given that people in low risk areas will also have access to the early warnings via the same media and can act accordingly when in at risk areas. The rest of the population also will benefit from reduced flood economic damages and losses, as this has an indirect impact on GDP when there is a need to</p>		

Monitoring Activity	Indicators	Targets		Description of indicators and targets	Data source/Collection Methods <sup>114</sup>	Frequency	Responsible for data collection
					rebuild/rehabilitate infrastructure after every flood etc. Therefore, population at large will benefit from the reduced disruption of businesses, logistics and infrastructure, reduced budget spendings on recovery and compensations. However, a conservative estimate of 80% of the rest of the population is used as the number of indirect beneficiaries. It is assumed that the occurrence of major extreme weather or seismic events do not deviate project trajectory and that Relevant government agencies cooperate on the implementation of all project interventions.		
	<b>IRMF Core Indicator - Core 2: Direct and indirect beneficiaries reached (ARA1 Most vulnerable people and communities)</b>	Direct: 11,258 people (5,513 men; 5,745 women)	Direct: 22,516 people (11,026 men; 11,490 women)	Number of overall direct and indirect beneficiaries of the structural and EBA measures in 5	Independent evaluation of the operations and performance of the structural, non-structural and EBA measures in protection the most vulnerable communities. Periodic condition inspection and performance	Annually	Project team

Monitoring Activity	Indicators	Targets		Description of indicators and targets	Data source/Collection Methods <sup>114</sup>	Frequency	Responsible for data collection
		0 (189,041 women, 181,628 men)	9 (378,083 women, 363,256 men)	river basins.	evaluation reports of Water Agencies and Hydrometeorological Institutes of structural, non-structural and EBA measures Independent Impact Evaluation surveys and reports which will assess change in vulnerability of communities at project mid-term and end-term compared to baseline. Methodology for estimating adaptation direct beneficiaries is summarised in Annex 22. Modelling and consultation with Water Agencies was undertaken to identify the most vulnerable communities where structural, non-structural measures and EBA measures could provide protection and save lives, in addition to the early warning system. Number of beneficiaries is defined through the modeling and preliminary design of the proposed flood protection measures. Direct beneficiaries are those who will be directly protected by flood protection interventions.		

Monitoring Activity	Indicators	Targets		Description of indicators and targets	Data source/Collection Methods <sup>114</sup>	Frequency	Responsible for data collection
					Indirect beneficiaries are remaining present day population at risk in the municipalities where the interventions will be implemented and who will benefit through reduced loss and disruption to critical infrastructure assets and reduced disruption of logistics/businesses by the end of the 6-year project. Assumptions: The occurrence of major extreme weather or seismic events do not deviate projected trajectory Relevant government agencies cooperate on the implementation of the FFEWS, data management and EbA measures		
	<b>Core 2: Direct and indirect beneficiaries reached (ARA2 Health, well-being, food and water security)</b>	Direct: 388,465 (198,17 women, 190,348 men)	Direct: 776,929 (396,234 women, 380,695 men))	Number of overall direct and indirect beneficiaries with access to early	Project reports Independent evaluation of the operations and performance of the impact based FFEWS Methodology for estimating adaptation beneficiaries is	Annually	Project team

Monitoring Activity	Indicators	Targets		Description of indicators and targets	Data source/Collection Methods <sup>114</sup>	Frequency	Responsible for data collection
		Indirect: 997,628 people (0.51 million women; 0.49 million men)	Indirect: 1,995,257 people (1.02 million women; 0.978 million men)	warnings .	summarised in Annex 22. The total direct beneficiaries are people at risk of flooding whose health, wellbeing, food and water security will be improved as a result of enhanced access to timely early warning and climate information. It is calculated as the present-day population at risk minus beneficiaries of the structural, non-structural and EbA measures to avoid double counting of beneficiaries. Indirect beneficiaries are estimated as the rest of the population of B&H, given that people in low risk areas will also have access to the early warnings and climate information via the same media and can act accordingly when in at risk areas. They will therefore also have indirect health, wellbeing, livelihoods, food and water security benefits. In order to avoid double counting of direct and indirect beneficiaries, people who will benefit from both		

Monitoring Activity	Indicators	Targets		Description of indicators and targets	Data source/Collection Methods <sup>114</sup>	Frequency	Responsible for data collection
					structural/EBA flood protection measures (included under ARA 1) and also from the FFEWS were excluded from the estimation of direct beneficiaries under ARA 2. In addition, a conservative estimate of 80% of the rest of the population is used as the number of indirect beneficiaries.		
	<b>Supplementary 2.4: Beneficiaries (female/male) covered by new or improved early warning systems (ARA2 Health, well-being, food and water security)</b>	Direct: 388,465 (198,117 women, 190,348 men)  Indirect: 997,628 people (0.51 million women; 0.49 million men)	Direct: 776,929 (396,234 women, 380,695 men)  Indirect: 1,995,257 people (1.02 million women; 0.978 million men)	Number of overall direct and indirect beneficiaries covered with new or improved early warning systems.	Project reports Independent evaluation of the operations and performance of the impact based FFEWS  Methodology for estimating adaptation beneficiaries is summarised in Annex 22. The number of beneficiaries by the end of the 6-year project is calculated as the present-day population at risk minus beneficiaries of the structural, non-structural and EbA measures to avoid double counting of beneficiaries. The occurrence of major extreme weather or seismic events do not	Annually	Project team



Monitoring Activity	Indicators	Targets		Description of indicators and targets	Data source/Collection Methods <sup>114</sup>	Frequency	Responsible for data collection
					deviate projected trajectory Relevant government agencies cooperate on the implementation of the FFEWS, data management and EbA measures.		
	<b>Core 3: Value of physical assets made more resilient to the effects of climate change and/or more able to reduce GHG emissions</b> <b>(ARA3 Infrastructure and built environment)</b>	\$250.9 million USD value of house hold assets and \$54.5 million USD value of business assets	\$501.8 million USD value of house hold assets and \$109 million USD value of business assets	Value of physical assets made more resilient to the effects of climate change in 6 targeted basins by structural, non-structural and EbA measures; Una/Sana, Vrbas, Bosna, Sava/Ukrina, Drina, Neretva/Trebišnjica.	Independent evaluation of the standard of protection provided by the project-implemented measures. Structural and non-structural measures meet their design standards in reducing the risks to population and reduction in agricultural and other economic losses.  The occurrence of major extreme weather or seismic events do not deviate projected trajectory.	Annually	Project team
	<b>Supplementary 3.1: Change in expected losses of economic assets due to the impact of extreme climate-related disasters in the geographic area of the GCF intervention</b>	\$41.8 million USD reduction in expected economic losses to	\$83.5 million USD reduction in expected economic losses to	Value of reduction in expected economic losses due to impact of extreme climate	Project reports Municipality post-flood assessment reports data. Structural and non-structural measures meet their design standards in reducing the risks to population and reduction in	Annually	Project team

Monitoring Activity	Indicators	Targets		Description of indicators and targets	Data source/Collection Methods <sup>114</sup>	Frequency	Responsible for data collection
	<b>(ARA3 Infrastructure and built environment)</b>	house holds and 9.5 million in business assets	house holds and 19 million in business assets	related disasters in 6 targeted basins by structural, non-structural and EbA measures; Una/Sana, Vrbas, Bosna, Sava/Ukrina, Drina, Neretva/Trebišnjica.	agricultural and other economic losses. The occurrence of major extreme weather or seismic events do not deviate projected trajectory.		
	<b>Supplementary 2.6: Beneficiaries (female/male) living in buildings that have increased resilience against climate hazards (ARA3 Infrastructure and built environment)</b>	Direct: 11,258 people (5,513 men; 5,745 women).	Direct: 22,516 people (11,026 men; 11,490 women).	Number of beneficiaries living in buildings that have increased resilience against climate hazards, whose houses are protected from extreme floods through structural and EbA measures in 5 basins (Vrbas, Una-	Independent evaluation of the standard of protection provided by the project-implemented measures. Structural and non-structural measures meet their design standards in reducing the risks to population and reduction in agricultural and other economic losses. The occurrence of major extreme weather or seismic events do not deviate projected trajectory.	Annually	Project team

Monitoring Activity	Indicators	Targets		Description of indicators and targets	Data source/Collection Methods <sup>114</sup>	Frequency	Responsible for data collection
				Sana, Bosna, Neretva and Trebisnjica river basins)			
	<b>Core 4: Hectares of natural resources brought under improved low-emission and/or climate-resilient management practice</b>  <b>(ARA4 Ecosystems and ecosystem services)</b>	2,540 ha	5,081 ha	Number of hectares of land protected from extreme floods through non-structural and EbA measures in 4 basins (Neretva, Una-Sana, Bosna, Vrbas) with GCF funds;	WA's and HMI's periodic and post-event survey reports and performance evaluation reports on hectares of land protected by structural, EBA and non-structural measures.	Annually	Project team
	<b>Supplementary 4.1: Hectares of terrestrial forest, terrestrial non-forest, freshwater and coastal marine areas brought under restoration and/or improved ecosystems</b>  <b>(ARA4 Ecosystems and ecosystem services)</b>	100 ha afforested to meet anti-flood and anti-erosion requirements.  40 ha of re-grassing as part of EBA	200 ha afforested to meet anti-flood and anti-erosion requirements.  80ha of re-grassing as part of EBA	Number of hectares of land afforested to meet anti-flood and anti-erosion requirements. Number of ha re-grassing as part of EBA measures.	WA's and HMI's periodic and post-event survey reports and performance evaluation reports on hectares of land protected by structural, EBA and non-structural measures	Annually	Project team

Monitoring Activity	Indicators	Targets		Description of indicators and targets	Data source/Collection Methods <sup>114</sup>	Frequency	Responsible for data collection
		measures	measures				
Project Outcome 1 / 2)	<b>Core Indicator 5: Degree to which GCF investments contribute to strengthening institutional and regulatory frameworks for low emission climate-resilient development pathways in a country-driven manner.</b>	Rating: High 80% of protocols, methodologies, standards for FRM in place; Policies, regulations, technical guidance exist and enforced. 6 policies and technical guidelines developed and implemented and enforced in 6 target basins, flood risk reduction mainstreamed into Hydropower, Agriculture, and Forestry sectoral policies; floodplain zoning policy and development control.  Critical infrastructure technical guidelines.  EbA technical guidelines		Degree to which GCF investments contribute to strengthening institutional and regulatory frameworks for low emission climate-resilient development pathways in a country-driven manner.	Implemented protocols – Activity 1.4 Updated methodologies, standards, and tools for FRM – Activities, 1.2, 1.3 Climate-induced flood risk mainstreamed into sectoral policies (Hydropower, Agriculture, and Forestry sectoral policies; floodplain zoning policy and development control) – Activity 2.1 Technical guidelines for climate proofed critical infrastructure design – Sub-Activity 2.1.3 Technical guidelines EbA technical guidelines developed – Activity 2.3	Annually	Project team
	<b>Core Indicator 6: Degree to which GCF investments contribute to technology deployment, dissemination, development or</b>	Rating: High Rehabilitated and complete hydrometric observation network using updated automatic		Degree to which GCF investments contribute to technolo	Rehabilitated and complete hydrometric observation network - Activity 1.1	Annually	Project team

Monitoring Activity	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods <sup>114</sup>	Frequency	Responsible for data collection
	<i>transfer innovation.</i> <b>and</b>	<i>observation stations and latest technologies in place in all basins. Enhanced EUFD hazard and risk models and maps available for 6 basins and used in decision making in those 6 basins. Impact-based FFEWS operational for all 6 basins and provides climate risk forecasts and warnings to population. At least 2 sectors specific FFEWS products are used in decision-making (Sector-specific climate information product/services for HPP and agric); Operational cross-sectoral platform for sharing and use of CC FRM data with relevant data sharing protocols</i>	<i>gy deployment, dissemination, development or transfer and innovation.</i>	<p><i>Enhanced EUFD hazard and risk models and maps - Activity 1.2</i></p> <p><i>Impact-based FFEWS operational for all 6 basins - Activity 1.3</i></p> <p><i>At least 2 sectors specific FFEWS products (HPP and agric) - Sub-Activity 1.3.3</i></p> <p><i>Cross-sectoral platform established and operational – Sub-activity 1.4.3</i></p>		
	<b>Core indicator 8: Degree to which GCF investments contribute to effective knowledge generation and learning processes, and use of good</b>	Rating: Medium 75% of hazard, vulnerability and risk modelling practitioners with relevant capacities;	Degree to which GCF investments contribute to effective	Strengthened hazard and risk monitoring, modelling, – Activities 1.1, 1.2, Capacity development plan for embedding FFEWS into relevant	Annually	Project team

Monitoring Activity	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods <sup>114</sup>	Frequency	Responsible for data collection
	<b>practices, methodologies and standards</b>	Capacity development plan for embedding flood hazard and risk modelling approaches and FFEWS into appropriate institutions in B&H Best-practice guidelines, technical specification, standards and protocols, and knowledge portals established for the application of EbA and non-structural measures. At least 50% increase over baseline in institutional capacity within WA'. HMLs, municipalities (in 6 basins);  FRM training embedded in existing government training programmes for long-term FRM training in B&H	knowledge generation and learning processes, and use of good practices, methodologies and standards	institutions in B&H - Activity 1.3 Best-practice guidelines, technical specification, standards and protocols for the application of EbA and non-structural measures; knowledge portal and common resource center to collect, collate and share knowledge and fill these gaps to advance uptake of nature-based solutions; Knowledge portal for collaboration between specialists to allow to co-working and knowledge sharing - Activity 2.3 FRM training embedded in existing government training programmes for long-term FRM training in B&H in the following topics: Flood hazard and risk assessment, hydrometry, forecasting and modelling, EWSs; Vulnerability and Risk Assessment; River basin flood risk management planning and the use of climate information - Activity 2.4		

Monitoring Activity	Indicators	Targets		Description of indicators and targets	Data source/Collection Methods <sup>114</sup>	Frequency	Responsible for data collection
Project Results (Outputs) 1	1.1 Number of new hydro-meteorological monitoring equipment purchased, installed and operational	Mid-term/Final Hydro-meteorological observation network expanded with 9-Groundwater monitoring stations; 24-rehabilitated piezometers; 18-new piezometer 100 and 200 m deep. 10- boreholes with average depth up to 50 m; 30- boreholes with average depth up to 30 m; 26-Meteorological stations; 23-Hydrological stations GCF-funded Stations by basin: Una/Sana - 6 Meteo; 12 hydro; Vrbas- 5 (meteo), 12 (hydro); Bosna – 7 (meteo), 11 (hydro); Sava/Ukrina- 1 (meteo), 21 (hydro); Drina – 1 (meteo), 11 (hydro); Neretva/treb – 6 (meteo), 47 (hydro);		Number of new hydro-meteorological monitoring equipment purchased, installed and operational	Project reports, evaluation reports, site observations	Annually	Project team
	1.2. Number of river basins for which enhanced flood	All 6 river basins	All 6 river basins	Number of river basins	Project reports, evaluation reports,	Annually	Project team

Monitoring Activity	Indicators	Targets		Description of indicators and targets	Data source/Collection Methods <sup>114</sup>	Frequency	Responsible for data collection
	hazard and risk maps and FFEWS are available and in use by institutional beneficiaries (Water Agencies, Hydrometeorological Institutes, and sectors: agriculture, hydropower, critical infrastructure and spatial planning)	(3,859 ,800 ha) with enhanced flood hazard and risk maps	(3,859 ,800 ha) with enhanced flood hazard and risk maps	for which enhanced flood hazard and risk maps and FFEWS are available and in use by institutional beneficiaries (Water Agencies , Hydrometeorological Institutes , and sectors: agriculture, hydropower, critical infrastructure and spatial planning )	monitoring and risk assessment products Knowledge system: e-library, created databases, information systems, knowledge portal Project surveys Performance assessment reports for FFEWS.		
		All 6 river basins with impact based FFEWS 50% of surveyed institutional users water agencies, HMI, and sectoral institutions use FRM hazard and risk information in sectoral planning, practice and decision-	All 6 river basins with impact based FFEWS 90% of surveyed institutional users water agencies, HMI, and sectoral institutions use FRM hazard and risk information in of sectoral planning, practice and decision-				



Monitoring Activity	Indicators	Targets		Description of indicators and targets	Data source/Collection Methods <sup>114</sup>	Frequency	Responsible for data collection
		<p>n-support functions;</p> <p>All relevant institutions have access to timely impact based FFEWS warnings.</p> <p>Institutions responsible for warning and response have 50% improvement in warning lead times and accuracy.</p>	<p>support functions;</p> <p>All relevant institutions have access to timely impact based FFEWS warnings.</p> <p>Institutions responsible for warning and response have 50% improvement in warning lead times and accuracy.</p>				
	1.3 Status of implementation of protocols and SoPs on data generation, data management and	WA's, HMIs and relevant	WA's, HMIs and relevant	Status of implementation of protocols	Project reports, evaluation reports, monitoring and risk assessment products	Annually	Project team

Monitoring Activity	Indicators	Targets		Description of indicators and targets	Data source/Collection Methods <sup>114</sup>	Frequency	Responsible for data collection
	communication for effective FFEWS and flood risk management introduced by the project	institutions in 50% of basins with access to and using data sharing protocols, including:	institutions in 100% of basins with access to and using data sharing protocols, including:	and SoPs on data generation, data management and communication for effective FFEWS and flood risk management introduced by the project			
		a) SoPs for “last-mile” warning and dissemination and communication system, b) Protocols and SOPs on data generation, data management for FRM, c) data sharing protocols	a) SoPs for “last-mile” warning and dissemination and communication system, b) Protocols and SOPs on data generation, data management for FRM, c) data sharing protocols				

Monitoring Activity	Indicators	Targets		Description of indicators and targets	Data source/Collection Methods <sup>114</sup>	Frequency	Responsible for data collection
		and platform for climate data, across all government institutions in both entities including spatial Data Infrastructure to be developed/enhanced to ensure climate data flow/exchange	ols and platform for climate data, across all government institutions in both entities including spatial Data Infrastructure to be developed/enhanced to ensure climate data flow/exchange				
<b>Project Results (Outputs) 2</b>	2.1. Number and level* of enforcement of sectoral policies, regulations and technical guidelines with climate induced flood risk reduction, including EbA, mainstreamed as a result of the project	Level 2 4 policies, and technical guidelines developed and implemented in 3 target	Level 3 6 policies and technical guidelines developed and implemented and partial	Number and level* of enforcement of sectoral policies, regulations and technical guidelines with climate induced flood risk reduction	Project reports – policy reviews, evaluation reports, independent evaluation report.  B&H CCA M&E system under the NAP.  Sector-specific compliance reports for Energy, Forestry and Agriculture.	Annually	Project team



Monitoring Activity	Indicators	Targets		Description of indicators and targets	Data source/Collection Methods <sup>114</sup>	Frequency	Responsible for data collection
			<i>guidelines</i>				
	2.2. % increase in the level of institutional capacity for implementation of FRM and FFEWS among key government agencies over baseline	At least 25% increase over baseline in institutional capacity (technical capacity: knowledge, skills, systems, technologies), within WA'. HMIs, municipalities (in 3 basins);	At least 50% increase over baseline in institutional capacity (technical capacity: knowledge, skills, systems, technologies) within WA'. HMIs, municipalities (in 6 basins);  FRM training embedded in existing government training programmes for long-	% increase in the level of institutional capacity for implementation of FRM and FFEWS among key government agencies over baseline	Institutional capacity assessment scorecard for all institutions (entity ministries, two Water Agencies, and two HMIs) Project reviews, independent evaluation report.	Annually	Project team

Monitoring Activity	Indicators	Targets		Description of indicators and targets	Data source/Collection Methods <sup>114</sup>	Frequency	Responsible for data collection
			term FRM training in B&H				
	2.3 Number of people protected through ecosystem-based flood risk reduction measures	6,799 people (3,293 men; 3,506 women)	13,598 people (6,586 men; 7,012 women)	Number of people protected through ecosystem-based flood risk reduction measures	Site visit report; Project reports, evaluation reports, independent evaluation report, Mid-term and terminal evaluation reports; IE surveys and reports; site-specific ESPs	Annually	Project team
<b>Project Results (Outputs) 3</b>	3.1. Number of country-wide investment frameworks, new private sector partnerships and/or risk transfer mechanisms for climate induced flood	4 strategies/mechanisms developed (including 2	7 (including 2 investment frameworks for climate	Number of country-wide investment frameworks, new private sector	Project reports, evaluation reports, independent evaluation report	Annually	Project team

Monitoring Activity	Indicators	Targets		Description of indicators and targets	Data source/Collection Methods <sup>114</sup>	Frequency	Responsible for data collection
	risk reduction and management;	<i>Private sector engagement strategies and 1 flood risk financing mechanism developed and FbF mechanism developed);</i>	induced floods risk reduction and management ; 3 flood risk financing mechanism in place; 2 MoUs with private/productive sector actors )	<i>partnerships and/or risk transfer mechanisms for climate induced flood risk reduction and management;</i>			
	3.2. Number of Multi-year climate resilient municipal investment plans and gender responsive community preparedness plans developed with project support in Municipalities and cantons following investment and preparedness plans completed by project.	<i>At least 6 Multi-year climate resilient municipal investment plans and gender responsive community</i>	<i>At least 12 Multi-year climate resilient municipal investment plans and gender responsive community</i>	<i>Number of Multi-year climate resilient municipal investment plans and gender responsive community preparedness plans developed with</i>	<i>Project reports, evaluation reports, independent evaluation report</i>	<i>Annually</i>	<i>Project team</i>

Monitoring Activity	Indicators	Targets		Description of indicators and targets	Data source/Collection Methods <sup>114</sup>	Frequency	Responsible for data collection
		<i>preparedness plans (including EAPs for FbF) developed in 5-6 municipalities and 1 canton in Vrbas, Una-Sana and Bosna, Drina, Neretva and Trebisnjica river basins</i>	<i>unity preparedness plans ((including EAPs for FbF)) developed in 10-12 municipalities and 1 canton in Vrbas, Una-Sana and Bosna, Drina, Neretva and Trebisnjica river basins</i>	<i>project support in Municipalities and cantons following investment and preparedness plans completed by project.</i>			
	3.3. Number and effectiveness (nu. of people/ha of land protected) of climate-proof structural flood risk reduction and anti-erosion interventions implemented in Vrbas, Una-Sana and Bosna, Drina, Neretva and Trebisnjica river basins with the project support	<i>5 climate-proof structural flood risk reduction and anti-erosion interventions implemented in</i>	<i>10 climate-proof structural flood risk reduction and anti-erosion interventions implemented in</i>	<i>Number and effectiveness (nu. of people/ha of land protected) of climate-proof structural flood risk reduction and anti-erosion interventions</i>	<i>Project reports, evaluation reports, independent evaluation report</i>	<i>Annually</i>	<i>Project team</i>



Monitoring Activity	Indicators	Targets		Description of indicators and targets	Data source/Collection Methods <sup>114</sup>	Frequency	Responsible for data collection
		Vrbas, Una-Sana and Bosna, Neretva and Trebisnjica river basins (approx. 16,000 meters total length) 4,459 people (2,220 men; 2,239 women); and 1,154 ha of agricultural land protected from flooding	Vrbas, Una-Sana and Bosna, Neretva and Trebisnjica river basins (approx. 32,131 meters total length) 8,918 people (4,440 men; 4,478 women); and 2,138.7 ha of agricultural land protected from flooding	implemented in Vrbas, Una-Sana and Bosna, Drina, Neretva and Trebisnjica river basins with the project support			

Annex [S]: Other annexes included in the Funding Proposal annex package approved by the GCF Board



**GCF  
FUNDED ACTIVITY AGREEMENT  
(GRANTS)**

**between**

**UNITED NATIONS DEVELOPMENT PROGRAMME**

**and**

**GREEN CLIMATE FUND**

**FUNDED ACTIVITY: FP216**

**“Scaling up Climate Resilient Flood Risk  
Management in Bosnia and Herzegovina”**

Dated 19 July 2024



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### Funded Activity Agreement (Grants)

This FUNDED ACTIVITY AGREEMENT (the “**FAA**” or this “**Agreement**”) is entered into on \_\_\_\_\_ 2024 between:

**UNITED NATIONS DEVELOPMENT PROGRAMME**, an international organization established by the General Assembly of the United Nations pursuant to its resolution 2029(XX) of 22 November 1965 and having its registered office at One UN Plaza, New York, New York 10017, United States of America (the “**Accredited Entity**” or “**UNDP**”); and

The **GREEN CLIMATE FUND**, an international organization established by Decisions 1/CP.16 and 3/CP.17 of the Conference of the Parties to the United Nations Framework Convention on Climate Change (“**Convention**”) and designated as an operating entity of the financial mechanism under Article 11 of the Convention (“**GCF**” or the “**Fund**”),

each a “**Party**” and together the “**Parties**”.

#### WHEREAS

- (A) The Accredited Entity and the GCF entered into an accreditation master agreement on 5 August 2016, which became effective on 23 November 2016, which was amended and restated pursuant to a first amendment and restatement agreement dated 16 March 2023, and which became effective on 3 May 2023 (the “**AMA**”), which sets forth, amongst others, the general terms and conditions applicable between the Parties in connection with a funded activity;
- (B) In accordance with clause 4.11 of the AMA, the Accredited Entity has submitted to the Fund a funding proposal, as contained in document GCF/B.37/02/Add.07 dated 2 October 2023, (the “**Funding Proposal**”) requesting funding for the activity described therein;
- (C) The NDA of the Host Country has issued the No-Objection Letter with respect to the Project, as described in the Funding Proposal;
- (D) The Board of the Fund, by its Decision B.37/12 (“**Approval Decision**”), approved the Funding Proposal in the amount of fourteen million four hundred thousand United States Dollars (USD 14,400,000) subject to the conditions set out in annex I “List of conditions and recommendations” of the Approval Decision and in the respective term sheet;
- (E) Following consultations with the GCF, the Accredited Entity submitted a restructuring proposal on 20 June 2024 (the “**Restructuring Proposal**”), which contained the following changes: (i) the removal of two (2) structural measures from ten (10) structural measures envisaged in the Funding Proposal, and (ii) consequential changes to the co-financing budget as annexed to the Funding Proposal;
- (F) The requested changes in the Restructuring Proposal were assessed by the GCF to be changes other than Major Changes (the “**Non-Major Project Changes**”) as per the GCF’s Policy on Restructuring and Cancellation and were approved by the GCF on 12 July 2024; and
- (G) Pursuant to the above and in accordance with clause 6.02 of the AMA and the Approval Decision, the Parties now wish to enter into this Agreement in order to set out the agreed terms for the implementation of the Funding Proposal (as modified by the Restructuring Proposal), hereinafter referred to as the “**Funded Activity**” or “**Project**”.

THE PARTIES HEREBY AGREE AS FOLLOWS:



## Clause 1. Definitions; AMA

- 1.01 The terms of the AMA are incorporated in their entirety, and form an integral part of, this Agreement and pursuant to clauses 1.02 and 1.03 of the AMA, any derogations from, deviations or modifications to the AMA in relation to the Funded Activity are set forth in this Agreement. In case of termination of the AMA, its terms as incorporated in this Agreement shall continue to apply.
- 1.02 In the event of a conflict between the terms and conditions in the Clauses of this Agreement and the terms and conditions of any of its Schedules, the terms and conditions in the Clauses of the Agreement shall prevail; and
- 1.03 Wherever used in this Agreement, terms defined in the AMA shall have the respective meanings therein set forth unless modified herein or the context otherwise requires. Additional terms used in this Agreement shall have the following meanings:
  - (a) **"Accredited Entity Fee"** shall have the meaning ascribed to it in Clause 4 of this Agreement;
  - (b) **"Activity(ies)"** shall have the meaning ascribed to it in Schedule 1;
  - (c) **"Budget"** means the costs of the Funded Activity and the breakdown thereof, as set out in the revised Annex 4 to the Funding Proposal "Detailed Budget Plan" submitted by the Accredited Entity to the Fund with the Restructuring Proposal;
  - (d) **"Closing Date"** means the date which is six (6) years after the Effective Date (or such later date as the Fund shall establish by notice to the Accredited Entity), on which the Accredited Entity's right to receive GCF Proceeds in respect of the Funded Activity will have terminated;
  - (e) **"Civil Works"** means all types of civil, mechanical, electrical or other engineering services (other than consulting services) as well as the supply of construction materials and equipment to be financed out of the GCF Proceeds;
  - (f) **"CBEWS"** means Community Based Early Warning Systems as further described in the Funding Proposal;
  - (g) **"Co-financier(s)"** means the following co-financier(s) of the Project:
    - (i) The Accredited Entity for the amount of eight hundred thousand United States Dollars (USD 800,000) in the form of non-reimbursable grant for the implementation of Output 3 of the Funded Activity and project managements costs;
    - (ii) Ministry of Agriculture, Forestry and Water Management of the Republika Srpska for the amount of twenty five million United States Dollars (USD 25,000,000) in the form of non-reimbursable grant for the implementation of Outputs 1, 2 and 3 of the Funded Activity and project management costs;
    - (iii) Sava River Watershed Agency for the amount of sixteen million United States Dollars (USD 16,000,000) in the form of non-reimbursable grant for the implementation of Outputs 1 and 2 of the Funded Activity and project management costs;





- (iv) Water Agency for Adriatic Sea Watershed for the amount of five million United States Dollars (USD 5,000,000) in the form of non-reimbursable grant for the implementation of Outputs 1 and 2 of the Funded Activity and project management costs;
- (v) Ministry of Spatial Planning, Civil Engineering and Ecology of the Republika Srpska for the amount of three hundred thousand United States Dollars (USD 300,000) in the form of non-reimbursable grant for the implementation of Output 2 of the Funded Activity and project management costs;
- (vi) Ministry of Foreign Trade and Economic Relations of Bosnia and Herzegovina for the amount of Five Million five hundred fifty five thousand five hundred fifty six United States Dollars (USD 5,555,556) in the form of non-reimbursable grant for the implementation of Outputs 1 and 3 of the Funded Activity and project management costs;
- (vii) Mixed Holding Power Utility of Republika Srpska, Subsidiary Company "Hidroelektrane na Trebišnjici" Joint Stock Company Trebinje for the amount of Five Million United States Dollars (USD 5,000,000) in the form of non-reimbursable grant for the implementation of Outputs 1 and 2 of the Funded Activity and project management costs;
- (viii) Association of Insurance Companies of Federation of Bosnia and Herzegovina for the amount of three hundred thousand United States Dollars (USD 300,000) in the form of non-reimbursable grant for the implementation of Output 3 of the Funded Activity and to project management costs; and
- (ix) Bosna Reinsurance Company Ltd. for the amount of three hundred thirty three thousand three hundred thirty three United States Dollars (USD 333,333) in the form of non-reimbursable grant for the implementation of Output 3 of the Funded Activity and project management costs.
- (h) **"Co-financing"** means jointly the amounts of funding to be provided by the Co-financiers, and separately, any of such co-financing;
- (i) **"Co-financing Agreement(s)"** means the legal agreement(s) and/or arrangements under which the Co-financiers will provide their Co-financing to assist in the Project implementation, either through the Accredited Entity or directly to the final beneficiaries
- (j) **"Completion Date"** means the date which is no later than 6 months after the Closing Date, except if otherwise agreed with the Fund, upon which the Accredited Entity shall finalize the implementation of all Activities set out under the Funding Activity;
- (k) **"Disbursement(s)"** means a disbursement of all or part of the Grant made, or to be made, available by the Fund to the Accredited Entity, upon receipt of a Request for Disbursement and pursuant to the terms and conditions set out in this Agreement;
- (l) **"Disbursement Plan"** means the disbursement plan included in Schedule 2;
- (m) **"Disbursement Schedule"** means the disbursement schedule to be provided in accordance with Clause 7.01(c);



- (n) **"Effective Date"** shall have the meaning ascribed to it in Clause 7.01 of this Agreement;
- (o) **"Eligibility Criteria"** means the set of criteria contained in Schedule 7 that the Accredited Entity shall apply in the selection and approval of (i) the communities where CBEWS will be implemented under Activity 1.3, (ii) FRM practitioners to receive training under Activity 2.3, (iii) beneficiaries of the training programmes under Activity 2.4, and (iv) beneficiary communities under Activity 3.2.
- (p) **"Eligible Expenditures"** means any reasonable costs of Goods, Services or Civil Works required for the implementation of the Funded Activity to be financed with the GCF Proceeds, in accordance with this Agreement, the AMA and the Funding Proposal;
- (q) **"Event of Default"** means, in addition to those set forth in clause 19.01 of the AMA, any event or circumstance set forth in Clause 11.01 of this Agreement;
- (r) **"Executing Entity"** means the entity specified in Clause 2.02 of this Agreement;
- (s) **"FRM"** means Flood Risk Management as further described in the Funding Proposal;
- (t) **"Funded Activity"** or **"Project"** shall have the meaning ascribed thereto in Recital (G) of this Agreement;
- (u) **"Funding Proposal"** shall have the meaning ascribed thereto in Recital (B) of this Agreement;
- (v) **"Gender Action Plan"** means the project-level gender action plan prepared by the Accredited Entity for the Project, which was provided by the Accredited Entity as part of the Funding Proposal approved by the Fund;
- (w) **"Grant"** means the GCF Proceeds in the amount specified in Clause 3.01 of this Agreement, as approved by the Board, which the Fund has decided to make available for the financing of the Funded Activity, which shall be exclusive of the Accredited Entity Fee;
- (x) **"Host Country"** means Bosnia and Herzegovina;
- (y) **"Implementation Arrangements"** means the contractual arrangement(s) to be entered into and/or the administrative arrangement(s) to be established by the different parties involved in the implementation of the Funded Activity as set out in Schedule 3;
- (z) **"Implementation Plan"** means the projected calendar for the implementation of the Funded Activity set forth in Annex 5 of the Funding Proposal;
- (aa) **"Notice of Payment"** means a written notice to be provided by the Accredited Entity to the GCF, substantially in the form set forth in Schedule 6, for the transfer of any unused funds or Investment Income, by the Accredited Entity to the Fund;
- (bb) **"Output(s)"** shall have the meaning ascribed to it in Schedule 1;
- (cc) **"Project Document"** means a project document defining the detailed financial, procurement and implementation plans of the Funded Activity that, in line with policies and procedures for direct implementation of the Accredited Entity, the Accredited Entity will sign in accordance with the AMA, as described in Schedule 3;
- (dd) **"Request for Disbursement"** means a request for disbursement substantially in the form set forth in Schedule 5;



- (ee) **"Responsible Parties"** means the parties to be engaged by the Executing Entity in accordance with the rules, policies and procedures of the Accredited Entity for the provision of Services during project implementation, as described in Schedule 3;
  - (ff) **"Restructuring Proposal"** shall have the meaning ascribed thereto in Recital (B) of this Agreement;
  - (gg) **"SBAA"** means Standard Basic Assistance Agreement between UNDP and the Government of the Host Country dated 07 December 1995;
  - (hh) **"Sub-Projects"** means each individual mitigation and adaptation sub-project to be developed in the Host Country as part of the Funded Activity by the Accredited Entity in accordance with the Environmental and Social Assessment Report and Environmental and Social Management Framework, Operations Manual and Eligibility Criteria; and
  - (ii) **"Tax(es)"** means any tax, levy, impost, fee, duty or other charge or withholding of a similar nature (including any penalty or interest payable in connection with a failure to pay or any delay in the payment of any such amounts), whether in effect at the date of execution of this Agreement or imposed thereafter).
- 1.04 Any references in this Agreement to "Clause" or "Schedule" shall refer to a clause of or a schedule to this Agreement, unless otherwise specified or context requires otherwise.

## Clause 2. The Funded Activity

- 2.01 The Accredited Entity shall carry out the Funded Activity, with due diligence and efficiency and in conformity with appropriate financial, economic, social, environmental and administrative practices, and shall provide, promptly as needed, the funds, facilities, services and other resources required for the Funded Activity.
- 2.02 The Accredited Entity shall act as the Executing Entity for this Funded Activity, as further described in Schedule 3.
- 2.03 The Accredited Entity shall carry out its obligations pursuant to the AMA and this Agreement.
- 2.04 Without prejudice to the provisions of Clause 2.01 above and except as the Accredited Entity and the Fund may otherwise agree, the Funded Activity shall be carried out in accordance with the Implementation Arrangements and within the timeframe set out in the Implementation Plan.
- 2.05 The implementation of all the Activities of the Funded Activity shall be completed no later than the Completion Date and shall be subject to confirmation by the Fund based on the completion report (final APR) to be provided in accordance with Schedule 4.
- 2.06 The Accredited Entity may request in writing to the Fund an extension of the Closing Date and/or the Completion Date setting forth its justification for such an extension request, which shall not be unreasonably denied by the Fund following due consideration of such justification. The Fund shall approve or deny such request within thirty (30) calendar days following the Accredited Entity's request, except in case such extension needs the GCF Board approval, which may require a longer period to respond to the Accredited Entity's request. In such case, the Fund will inform the Accredited Entity of the need for GCF Board approval within thirty (30) calendar days following the Accredited Entity's request.





### Clause 3. The Grant; Disbursements

- 3.01 Subject to the terms and conditions of this Agreement, the Fund agrees to make available to the Accredited Entity by or before the Closing Date, as set forth in the Disbursement Plan attached hereto as Schedule 2, an amount equal to fourteen million four hundred thousand United States Dollars (USD 14,400,000), in the form of a non-reimbursable grant for the purposes of, and to assist, in financing the Funded Activity.
- 3.02 The Grant shall be transferred, in accordance with the Disbursement Plan provided in Schedule 2, to the Accredited Entity upon the fulfillment by the Accredited Entity, to the satisfaction of the Fund, of the relevant conditions precedent to Disbursement set forth in Clause 9 below. In accordance with this Clause 3.02, the Grant shall be transferred to the bank account to be notified by the Accredited Entity to the Fund in writing in the Request for Disbursement. For the avoidance of doubt, the GCF Account for the Funded Activity will be a ledger account.
- 3.03 The GCF Holding Currency for Disbursements shall be USD.
- 3.04 The Accredited Entity shall ensure that (i) the Grant is exclusively to finance the Eligible Expenditures, in accordance with the AMA and this Agreement, as set out in the Funding Proposal (as amended by the Restructuring Proposal), and as further specified in the Budget; and (ii) all the Eligible Expenditures shall be accrued before the Completion Date.
- 3.05 ***Retroactive Financing.*** The Grant shall not be used to finance any costs incurred prior to the Effective Date.
- 3.06 ***Adjustment of GCF Proceeds in Case of a Shortfall in Co-financing.*** Pursuant to the written evidence to be delivered to the Fund under Clause 9.01(a)(iv), if the proportion of GCF Proceeds to Co-financing provided for the implementation of the Funded Activity up to the date of the Request for Disbursement is not satisfied by the Accredited Entity prior to the Disbursement of the GCF Proceeds and if the deviation in Co-financing cumulatively committed/applied to the Project up to the date of the Request for Disbursement is greater than twenty per cent (20%), then the amount of GCF Proceed requested to be disbursed in such Disbursement Request shall be adjusted by the Fund in proportion to the shortfall amount in Co-financing which deviates from the total Budget, provided however that if and when the Co-financing accelerates in subsequent years, GCF Proceeds will be disbursed proportionally based on the realized Co-financing.
- 3.07 The financial reporting and accounting currency for the Funded Activity shall be USD.
- 3.08 Any Investment Income as well as any other income or gains earned on other balances held in the GCF Account shall be transferred, together with any unused funds, on an annual basis to the GCF to the account notified to the Accredited Entity following the Effective Date. The Accredited Entity shall deliver to the GCF a Notice of Payment in respect of such Investment Income and unused funds no later than fifteen (15) calendar days after the end of each December, and shall transfer the relevant unused funds or Investment Income to the GCF within thirty (30) calendar days of such Notice of Payment. The GCF may, upon written notice to the Accredited Entity, change the instructions for the transfer of unused funds or Investment Income.

### Clause 4. Accredited Entity Fee

- 4.01 The Accredited Entity's fee is an amount equal to seven per cent (7.0%) of the total Grant used to finance the Funded Activity (the "**Accredited Entity Fee**").



- 4.02 Ninety per cent (90%) of the Accredited Entity Fee shall be disbursed by the GCF to the Accredited Entity in instalments at the time of each Disbursement. The amount of each instalment of the Accredited Entity Fee shall be proportionate to the amount of the Disbursement to the total Grant, and such instalments shall be transferred to the bank account of the Accredited Entity indicated in the Request for Disbursement.
- 4.03 If, as at the Completion Date:
- (a) The aggregate amount of the Grant used to finance the Funded Activity was less than ninety per cent (90%) of the Grant, then the Accredited Entity shall, within thirty (30) calendar days written notice from the Fund, refund to the GCF the portion of the disbursed Accredited Entity Fee in relation to the unutilized portion of the GCF Proceeds; or
  - (b) The aggregate amount of the Grant used to finance the Funded Activity was ninety per cent (90%) of the Grant, then the GCF shall pay no further amount in respect of the Accredited Entity Fee to the Accredited Entity; or
  - (c) The aggregate amount of the Grant used to finance the Funded Activity was greater than ninety per cent (90%) of the Grant, then, within thirty (30) calendar days after the Accredited Entity submits to the GCF the Project completion report (final APR) to the satisfaction of the GCF, the GCF shall disburse to the Accredited Entity an amount, up to and including ten per cent (10%) of the Accredited Entity Fee,
- The aggregate Accredited Entity Fee received and retained by the Accredited Entity shall not exceed seven per cent (7.0%) of the total Grant used to finance the Funded Activity, unless otherwise agreed by the Fund.
- 4.04 The Accredited Entity Fee will be disbursed to the Accredited Entity in addition to the GCF Proceeds.
- 4.05 If the Fund decides to suspend Disbursements, in accordance with clause 15.04 of the AMA or Clause 5.03 of this Agreement, the Fund may also, at its own discretion, suspend the payment of Accredited Entity Fee. Such suspension will affect only Disbursements and payments of Accredited Entity Fee not disbursed by the Fund to the Accredited Entity prior to the time the suspension is decided by the Fund.
- 4.06 **Reporting on the Accredited Entity Fee.** The Accredited Entity shall report on the usage of the Accredited Entity Fee annually as part of the APR process in accordance with the AMA.

## Clause 5. Funded Activity Implementation

- 5.01 **Modifications to the Funded Activity.** For the purposes of clause 11.03 of the AMA, the Accredited Entity shall inform the Fund as soon as possible of any proposed modification to the Funded Activity which could reasonably constitute a Major Change, and seek the Fund's instructions on the necessary steps to be taken to address such event or to effect such proposed modification, which may involve seeking a new No-Objection Letter and/or new Board approval.
- 5.02 For purposes of Clause 5.01 above, a Major Change may include:
- (a) A change in the scope of the Funded Activity or use of the GCF Proceeds which would result in a substantial deviation from the intended outcomes that the Accredited Entity seeks to achieve from the implementation of the Funded Activity, including its climate and/or environmental impacts;





- (b) An adverse impact on the ability of the Executing Entity to operate the Funded Activity;
  - (c) The requirement for an additional financial commitment from the Fund;
  - (d) A change in the Executing Entity or an adverse change in the legal status of the Executing Entity or any third party involved in the implementation of the Funded Activity that materially and adversely impacts implementation of the Funded Activity; and
  - (e) A material shortfall resulting from the suspension, cancellation, termination or not coming into effect, in whole or in part, of any Co-financing or a Co-financing Agreement, unless adequate funds for the Project are available from other sources on terms and conditions consistent with the affected Co-financing or Co-financing Agreement.
- 5.03 The Accredited Entity shall, promptly, inform the Fund of any credible and material risks or other indications of money laundering and/or financing of terrorism in relation to a Funded Activity and promptly take steps recommended by the Fund, and agreed by the Accredited Entity acting reasonably and in accordance with its own policies and procedures. In those cases, the Fund may suspend the Disbursements to the Accredited Entity under this Agreement until such risks have ceased or are reduced to the level satisfactory to the Fund.

#### Clause 6. Administration of Grant by the Accredited Entity

- 6.01 **Permitted Reallocation.** Any reallocation of the GCF Proceeds among the Funded Activity Outputs described in the Budget resulting in a variation of more than ten per cent (10%) of the previously agreed Budget for the relevant Output from which and to which the funds are to be reallocated must be approved in writing by the Fund in advance. Notwithstanding the above, any increase in the amount allocated to project management costs in the Budget must be communicated by the Accredited Entity to the Fund and approved in writing by the Fund in advance.
- 6.02 **Taxation.** The tax exemptions accorded under the SBAA shall apply to Eligible Expenditures procured with the GCF Proceeds. The Accredited Entity will not withhold any amount for Taxes from any Investment Income, unused funds or any assets held in the GCF Account, to be transferred from the Accredited Entity to the Fund. The Fund shall not pay any funds in addition to the amount specified in Clause 3.01 above, including for the payment of Taxes, for and during the implementation of the Project.

#### Clause 7. Effectiveness

- 7.01 This Agreement shall enter into effect on the date upon which the Fund dispatches to the Accredited Entity a notice of its acceptance of the evidences specified below ("**Effective Date**"):
- (a) A duly authorized and executed copy of this Agreement by the Accredited Entity;
  - (b) A certificate issued by the Accredited Entity's most senior legal officer, in a form that is satisfactory to the Fund, certifying that this Agreement entered into by the Accredited Entity has been duly authorized or ratified by all necessary corporate actions, duly executed and delivered on behalf of the Accredited Entity, and is legally binding and enforceable upon the Accredited Entity in accordance with its terms;



- (c) An indicative Disbursement Schedule by the Accredited Entity indicating month and year for the Disbursement of the GCF Proceeds by the Fund to the Accredited Entity for the implementation of the Funded Activity.
- 7.02 If, before the Effective Date, any event has occurred, which would entitle the Fund to suspend the right of the Accredited Entity to receive Disbursements under this Agreement if this Agreement had been effective, the Fund may postpone the dispatch of the notice referred to in this Clause 7 until such event (or events) has (or have) ceased to exist.
- 7.03 ***Termination for Failure to Become Effective.*** This Agreement and all obligations of the Parties under it shall terminate if it has not entered into effect by the date which falls ninety (90) calendar days after the date of execution of this Agreement, unless the Fund, after consideration of the reasons for the delay and following consultations with the Accredited Entity, establishes a later date for the purpose of this Clause 7. The Fund shall promptly notify the Accredited Entity of such later date.

#### **Clause 8. Reporting, Monitoring and Evaluation Schedule**

- 8.01 The reporting and monitoring of the Funded Activity shall be done in accordance with Schedule 4 and consistent with the Integrated Results Management Framework,
- 8.02 The logical framework set out in the Funding Proposal shall be used by the Accredited Entity for the implementation of and reporting on the Funded Activity.
- 8.03 The interim and final evaluations shall be submitted to the Fund within the timelines set out in Schedule 4 and conducted in line with the Evaluation Policy and contain the assessments of paradigm shift potential and enabling environment as outlined in the Integrated Results Management Framework.

#### **Clause 9. Conditions Precedent to Disbursement**

- 9.01 The obligation of the Fund to make any Disbursements under this Agreement shall be subject to the following conditions having been fulfilled to the satisfaction, in form and substance, of the Fund:
  - (a) *General conditions for all Disbursements:*
    - (i) Other than in relation to the first Disbursement, submission to the Fund by the Accredited Entity of evidence that at least seventy per cent (70%) of the funds previously disbursed by the Fund have been spent on Eligible Expenditures;
    - (ii) Other than in relation to the first Disbursement, submission to the Fund by the Accredited Entity of APRs and Financial Information in accordance with the AMA and this Agreement;
    - (iii) Delivery to the Fund by the Accredited Entity of a Request for Disbursement, in a form and substance satisfactory to the Fund, signed by the person or persons authorized to do so, within thirty (30) calendar days prior to the date on which the Disbursement is requested to be made, which shall not be later than the Closing Date;
    - (iv) Delivery to the Fund by the Accredited Entity of evidence, satisfactory to the Fund, indicating the status and the amount of the Co-financing funds disbursed and applied to the implementation of the Funded Activity up to the date of the request for funds made by the Accredited Entity; and



- (v) Confirmation to the Fund by the Accredited Entity that there is no event of default occurring with respect to this Agreement.
- (b) Conditions precedent to first Disbursement:
  - (i) Effectiveness of this Agreement;
  - (ii) Delivery to the Fund by the Accredited Entity of an executed copy of the Project Document, in accordance with the AMA;
  - (iii) Delivery to the Fund by the Accredited Entity of evidence, satisfactory to the Fund, of the authority of the person or persons authorized to sign each Request for Disbursement (with respect to the GCF Proceeds and the Accredited Entity Fees) under this Agreement, and the authenticated specimen signature of each such person; and
  - (iv) Delivery to the Fund by the Accredited entity of a summary report of stakeholder consultations conducted pursuant to the covenant set forth in Clause 10.02(n), including recommendations for project design and implementation modalities;
- (c) Conditions precedent to second Disbursement:
  - (i) Delivery to the Fund of a sustainability plan developed in close consultation with relevant entities and local government institutions, specifying their respective roles in project implementation, including policy mainstreaming and the operationalising and sustaining of the flood forecasting and early warning systems;
- (d) Conditions precedent to third Disbursement
  - (i) Delivery to the Fund of an updated organization structure for the project for implementation of the sustainability plan.
- 9.02 If within ninety (90) calendar days from the Effective Date, or such longer period established by the Fund in writing, the Accredited Entity has not requested the first Disbursement or the conditions precedent for the first Disbursement established in Clause 9.01 have not been fulfilled, the Fund may terminate this Agreement by giving notice to the Accredited Entity.
- 9.03 If at the Closing Date, the Accredited Entity has not requested the Disbursement of the full amount of the GCF Proceeds with at least thirty (30) calendar days prior to such date, or the Fund has not otherwise disbursed the full amount of the GCF Proceeds, the undisbursed portion of the GCF Proceeds shall automatically be cancelled and no longer available for Disbursement.

#### **Clause 10. Additional Representations, Warranties and Covenants of the Accredited Entity**

- 10.01 In addition to clause 18.01 of the AMA, the Accredited Entity represents and warrants that:
  - (a) On the date of the execution of this Agreement and the date of each Disbursement made by the Fund under this Agreement, there are no circumstances of which the Accredited Entity is aware, including through its oversight of the Funded Activity as per the obligations of this FAA, the AMA and UNDP's own policies and practices, that may substantially interfere with the performance of its obligations under this





Agreement, the AMA or with the implementation of the Funded Activity, or otherwise jeopardize the achievements of any objectives, outcomes or outputs of the Funded Activity;

- (b) On the date of the first Disbursement by the Fund under this Agreement and throughout the term of this Agreement, the Project Document remains in effect;
- (c) On the date of each Disbursement by the Fund under this Agreement, no Event of Default has occurred and is continuing under this Agreement;
- (d) On the date of execution and the Effective Date of this Agreement and the date of each Disbursement made by the Fund under this Agreement, the policies of the Accredited Entity addressing AML/CFT are substantially consistent with the principles of the AML/CFT Policy;
- (e) On the date of execution of this Agreement, the Effective Date and on the date of each Disbursement made by the Fund under this Agreement, the Accredited Entity has carried out all due diligence as necessary to ensure that the Funded Activity is at all times in compliance with its own gender policy, which is equivalent to the Updated Gender Policy.

10.02 In addition to clause 18.02 of the AMA, the Accredited Entity covenants that as from the Effective Date of this Agreement it shall:

***Co-Financing related covenants***

- (a) Confirm to the Fund, in the APRs to be submitted to the Fund, that the Co-financiers have allocated in their annual budget the relevant Co-financing resources for the implementation of the Project to the satisfaction of the Accredited Entity;
- (b) Inform the Fund, in the APRs to be submitted in accordance with the AMA, on the status of the Co-financing funds that have been disbursed and applied to the implementation of the Project Activities;
- (c) Ensure that the Co-financing provided by the Accredited Entity for the execution of the Funded Activity is contributed by the Accredited Entity in a timely manner;
- (d) Take appropriate measures to ensure that the Co-financing and the GCF Proceeds are disbursed and/or applied proportionally and simultaneously for the implementation of the Funded Activity in accordance with the timelines and amount set out in the total Budget;

***ESS-related covenants***

- (e) Ensure that the infrastructure to be implemented as part of the Funded Activity (i) are designed, constructed, operated and decommissioned in accordance with good industry practices and any other applicable standards which, in each case, shall be consistent with the practices of other international organizations working in the region, and taking into consideration health and safety risks to third parties or affected communities; and (ii) the quality of such infrastructure is in accordance with best practices followed by international organizations in the region;
- (f) Undertake and/or put in place any adequate measures in order to ensure that the management of the environmental and social risks and impacts arising from the Funded Activity complies at all times with the recommendations, requirements and procedures set forth in the Environmental and Social Assessment Report ("ESAR") and Environmental and Social Management Framework ("ESMF")



which was provided by the Accredited Entity to the Fund before the Approval Decision and which shall not be amended, abrogated or waived without prior written approval of the Fund. This includes putting in place measures, including with respect to the Accredited Entity's grievance redress mechanisms, to prevent and respond to the conducts described in clause 18.02(k) of the AMA, for adherence to the relevant principles and requirements included in the ESAR and ESMF;

- (g) Ensure that the GCF Proceeds will not support or finance, directly or indirectly, any activities with potential environmental and social risks that are equivalent to category A pursuant to the Environmental and Social Risks Categories to be conducted as part of the Project;
- (h) Acquire all necessary environmental licenses or clearances, and shall promptly furnish evidence, in a form and substance satisfactory to the Fund and upon its request, that such licenses or clearances, are available for the purposes of the Project;
- (i) Prior to commencing any construction works under Activity 2.2 and Activity 3.3 as specified in the project's ESAR/ESMF, the Accredited Entity shall submit to the Fund the detailed site-specific assessments and management plans (that may involve Environmental and Social Impact Assessment ("ESIA") and Environmental and Social Management Plan ("ESMP")), relating to the relevant construction works or activities to be executed, in a form and substance satisfactory to the Fund;
- (j) In relation to each Sub-Project under Activity 2.2 that is Category B (pursuant to the Environmental and Social Risk Categories), disclose the ESIA and ESMP and, as appropriate, and any other associated information required to be disclosed pursuant to the relevant policies of the Accredited Entity and to the requirements set out in Schedule 8 in such a manner so as to meet, in accordance with clause 13.01, clause 15.01(e), clause 25.05 and clause 25.08 of the AMA, the requirements of the Information Disclosure Policy and the Environmental and Social Policy (each, the "**Sub-Project Disclosure Package**");
- (k) Undertake and/or put in place all adequate measures and dedicate the necessary financial, human and other resources in order to ensure that the Funded Activity complies at all times with the recommendations and requirements of the Gender Action Plan ("**GAP**"), provided by the Accredited Entity to the Fund as part of the Funding Proposal, which shall comply with the Accredited Entity's own gender policy, which is equivalent to the GCF's Updated Gender Policy, and the GAP shall not be amended, abrogated or waived without prior written approval of the Fund;
- (l) Obtain any required land use rights and/or permissions in respect of land that are required to carry out the Funded Activity and shall promptly furnish to the Fund, upon its request, evidence that such land, rights and/or permissions in respect of the land are available for the purposes of the Funded Activity;

***iTAP conditions-related covenants***

- (m) Prior to the first Disbursement, conduct local stakeholder consultations across the entire project area, including in each of the target river basins regarding project design. The local consultations shall be conducted with a view towards: (i) how flood risk reduction measures and nature-based solutions are to be mainstreamed into sectoral policies and plans of the Host Country; and (ii) how the flood forecasting and early warning systems shall be operationalised and sustained;



- (n) Prior to the submission to the Fund of a summary report of stakeholder consultations referred to in Clause 9.01(b)(iv), deliver to the Fund a copy of such summary report for the review and approval by the Fund;
- (o) Deliver to the Fund a copy of the sustainability plan, as referred to in Clause 9.01(c)(i), endorsed by the relevant institutions in the Host Country for the review and approval of the Fund;
- (p) Deliver to the GCF Secretariat a detailed project organization structure as referred to in Clause 9.01(d)(i), with equipment property rights assigned or handed over to the various institutions in the Host Country that will operate and maintain it, for the review and approval by the Fund;

***Project-specific covenants***

- (q) In case any amendment or modification is entered to or otherwise agreed by the Accredited Entity with respect to the Project Document, inform of such event and furnish to the Fund the executed copies of such amendment or modification within ten (10) days from its execution. For the avoidance of doubt, the Accredited Entity shall ensure that such amendment or modification does not contravene the terms and conditions provided in this Agreement and the AMA;
- (r) Apply, in accordance with its own policies and procedures, its own fiduciary principles and standards relating to AML/CFT in the implementation of the Funded Activity;
- (s) In case of a change of the authorized representative to sign the Request for Disbursement, provide, together with the Request for Disbursement, evidence, satisfactory to the Fund, of the authority of such person to sign the Request for Disbursement and the relevant authenticated specimen signature of such person;
- (t) Ensure that the beneficiaries identified in section B.3 of the Funding Proposal are selected in accordance with the Eligibility Criteria set out in Schedule 7;
- (u) In case of any material amendment to the Eligibility Criteria set out in Schedule 7, immediately inform the Fund and seek the Fund's prior approval of such amendment or modification; and
- (v) Pursuant to clause 23.04 of the AMA, the Accredited Entity shall inform the GCF Secretariat in the final APR and consult with the GCF Secretariat on the steps to be taken in relation to the durable assets and/or equipment purchased with the GCF Proceeds to implement the Funded Activity, provided that nothing herein shall in any way be construed to limit the rights of UNDP to take such steps as it reasonably deems in the best interest of the continued operation of the Funded Activity taking into consideration the objectives of the GCF and the terms of the applicable SBAA, and in accordance with its policies and procedures.

**Clause 11. Additional Remedies to the Fund**

**11.01 *Events of Default.*** In addition to clause 19 of the AMA, the following events shall constitute an event of default of this Agreement:

- (a) The Accredited Entity has failed to comply, in any material respect with, or shall have failed to perform in any material respects, any of its obligations under this Agreement, including, but not limited to, misrepresentation and breach of warranties, and non-performance of any covenants;





- (b) If an event of default has occurred under: (i) the AMA, or (ii) any other funded activity agreements entered between the Parties, pursuant to the terms of the relevant agreement; and/or
  - (c) The Accredited Entity has failed to take in a timely manner the necessary steps instructed by the Fund, in accordance with Clause 5.01 of this Agreement and clause 11.03 of the AMA.
- 11.02 ***Remedies/Consequences of Default.*** In addition to clause 20 of the AMA, and notwithstanding any other right or remedy available in law, upon an Event of Default described under Clause 11.01 above, the Fund may:
- (a) Require the Accredited Entity to remedy such Event of Default within a reasonable period of time set by the Fund at its sole discretion; and/or
  - (b) If such Event of Default is not remedied pursuant to paragraph (a) of this Clause 11.02, or if the Fund did not opt to require the Accredited Entity to remedy such Event of Default, the Fund may, by notice to the Accredited Entity exercise one or more of the rights specified in clause 20.01(b) of the AMA.

#### **Clause 12. Step-in Rights**

- 12.01 In the event the Fund exercises its rights under clauses 20.01(b)(iv), 22.01 and 22.03 of the AMA, the Accredited Entity shall execute such documents and take such steps as are reasonably necessary to enable the Fund to give effect to such provisions.

#### **Clause 13. Applicable Law; Dispute Resolution**

- 13.01 This Agreement shall be governed by public international law. Clauses 28 and 29 of the AMA apply to this Agreement *mutatis mutandis*.

#### **Clause 14. Designated Authority; Notices**

- 14.01 Any notice, request, document, report, or other communication submitted by either the Accredited Entity or the Fund, shall unless expressly specified in this Agreement, be in English and delivered by hand or by facsimile or email to the Party to which it is required or permitted to be given or made to the following addresses:

For the Accredited Entity:

Attn: Executive Coordinator, ad interim (A.I),  
 Vertical Fund Programme Support, Oversight and Compliance Unit  
 (Vertical Fund Hub), Bureau for Policy and Programme Support (BPPS)  
 Address: 304 East 45<sup>th</sup> Street  
 New York, NY 10017  
 United States of America  
 Fax: +1 212 906 5044  
 Email: [nancy.bennet@undp.org](mailto:nancy.bennet@undp.org)



For the Fund:

Attn: Division of Mitigation and Adaptation  
 Address: G-Tower, 175, Art Center-daero  
 Yeonsu-gu, Incheon 22004  
 Republic of Korea  
 Fax: +82 32 458 6092  
 Email: [dma.postapproval@gcfund.org](mailto:dma.postapproval@gcfund.org)

With copy to:

Attn: Division of Portfolio Management (DPM)  
 Email: [DPM@gcfund.org](mailto:DPM@gcfund.org)

- 14.02 A Party may change the information set forth in Clause 14.01 by delivery to the other Party of a written notice signed by an authorized representative, provided that such changes will become effective only after five (5) calendar days from the receipt of such notice by the other Party.

### Clause 15. Miscellaneous

- 15.01 **Assignment; Novation.** The Accredited Entity will not be entitled to assign or otherwise transfer its rights and obligations under this Agreement, in full or in part, without the prior written consent of the Fund, which consent may be granted or not granted at the Fund's absolute discretion.
- 15.02 **Failure to Exercise Rights.** No delay in exercising, or omission to exercise, any right, power or remedy accruing to any Party under this Agreement upon any default shall impair any such right, power or remedy or be construed to be a waiver thereof or an acquiescence in such default. No action of such Party in respect of any default, or any acquiescence by it in any default, shall affect or impair any right, power or remedy of such Party in respect of any other or subsequent default.
- 15.03 **Execution in Counterparts.** This Agreement may be executed in two counterparts, each of which shall be an original.
- 15.04 **Rights of Third Parties.** This Agreement is intended solely for the benefit of the Parties and is not intended to be for the benefit of, nor may any provision be enforced by, any person or entity that is not a party to this Agreement. Any other statute or law to the contrary is hereby excluded or disappplied.
- 15.05 **Entire Agreement.** This Agreement constitutes the entire agreement and understanding of the Parties with respect to its subject matter and supersedes all oral communication and prior writings with respect thereto, other than those writings expressly referred to or incorporated into this Agreement entered into hereunder, including the AMA.
- 15.06 **Modification or Amendment.** No modification or amendment of this Agreement shall be valid unless in writing and signed by an authorized representative of the Fund and an authorized representative of the Accredited Entity.
- 15.07 **Relationship of the Parties.** Nothing contained in this Agreement shall be deemed or construed as creating a principal-agent relationship between the Parties hereto or be construed to evidence the intention of the Parties to constitute such. Neither Party shall have any express or implied right or authority to assume or create any obligations on behalf of or in the name of the other Party or to bind the other Party to any contract, agreement or undertaking with any third party.



- 
- 15.08 **Severability.** If any term of this Agreement is to any extent invalid, illegal, or incapable of being enforced, such term shall be excluded to the extent of such invalidity, illegality, or unenforceability; all other terms hereof shall remain in full force and effect.
- 15.09 **Duration and Survival.** This Agreement shall remain in full force and effect until all obligations of the Accredited Entity have been fulfilled. Notwithstanding the foregoing, Clause 13.01 (Applicable Law; Dispute Resolution) and this Clause 15 (Miscellaneous) of this Agreement shall, unless explicitly provided otherwise, survive for a period of five (5) years after the fulfilment of all obligations of the Accredited Entity under this Agreement.



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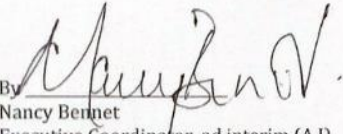
IN WITNESS WHEREOF the Parties hereto, acting through their representatives thereunto duly authorized, have caused this Agreement to be signed in their respective names as of the day and year first above written and to be delivered at the principal office of the Fund.

*Signature blocks follow on following pages*



GREEN  
CLIMATE  
FUND

UNITED NATIONS DEVELOPMENT PROGRAMME

By 

Nancy Bennet  
Executive Coordinator, ad interim (A.I)  
Vertical Fund Programme Support, Oversight and  
Compliance Unit (Vertical Fund Hub),  
Bureau for Policy and Programme Support (BPPS)

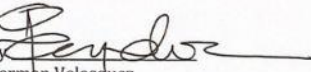
Date 19 July 2024

GCF/UNDP BHH/FP216/Execution Version

-20-



**GREEN CLIMATE FUND**

By   
German Velasquez  
Director, Division of Mitigation and Adaptation

Date 19 July 2024





### Schedule 1. Description of Funded Activity

The description of the Funded Activity, as further elaborated in the Funding Proposal, is outlined below.

**Description:** The objective of the Project is to address increasing vulnerability of Bosnia and Herzegovina (B&H) ("Host Country") communities and livelihoods to intensified climate-induced flood-related disasters. The objective will be achieved through the implementation of the following three outputs as further described in the Funding Proposal:

**Output 1: Fully integrated impact-based Flood Forecasting and EWS facilitates timely preparation and response;**

Activity 1.1: Upgrade and expand the coverage of the hydrometric network for enhanced monitoring of climate variables in Category I catchments and torrential streams.

Activity 1.2: Enhance climate-induced flood hazard, risk and vulnerability information for strategic risk management and sound decision making for climate induced flood management.

Activity 1.3: Develop an integrated impact-based centralized and community-based flood forecasting and early warning system (FFEWS).

Activity 1.4: Develop and implement protocols and Standard Operating Procedures (SOPs) on data generation, data management and communication for effective impact based FFEWS and flood risk management.

**Output 2: Non-structural flood risk reduction measures and nature-based solutions mainstreamed in sectoral policies and plans and effectively contribute to protection of people and livelihoods from climate-induced flood risk;**

Activity 2.1: Mainstream climate induced flood risk reduction into sectoral planning (agriculture, hydropower, forestry, environment), critical infrastructure and spatial planning.

Activity 2.2: Implement and mainstream new ecosystem-based flood risk reduction and climate change adaptation methods.

Activity 2.3: Codify and mainstream "ecosystem-based adaptation" (EbA) solutions into policies and regulations and promote non-structural measures among decision makers and communities.

Activity 2.4: Review and strengthen institutional capacity and develop long-term institutional capacity development plans for climate resilient Flood Risk Management (FRM).

**Output 3: Climate-proof flood protection measures scaled-up through new and improved national and local investment frameworks increasing resilience of the most vulnerable groups to climate induced flooding.**

Activity 3.1: Develop a country-wide investment framework for climate induced flood risk reduction and management including provisions for private sector engagement in climate risk financing.

Activity 3.2: Formulate multi-year climate resilient municipal investment plans and gender responsive community preparedness plans in selected municipalities and in one canton in Vrbas, Una-Sana, Bosna, Drina, Neretva and Trebišnjica basins.

Activity 3.3: Implement climate-proof structural flood risk reduction and anti-erosion interventions in Vrbas, Una-Sana, Bosna and Drina River basins.



Schedule 2. Disbursement Plan

Disbursements	GCF Proceeds (USD)
Disbursement 1	1,671,594
Disbursement 2	3,769,041
Disbursement 3	4,594,148
Disbursement 4	2,634,117
Disbursement 5	1,236,926
Disbursement 6	494,174
Total	14,400,000





### Schedule 3. Implementation Arrangements

The Implementation Arrangements for the Funded Activity, as further elaborated in the Funding Proposal are as follows:

The Accredited Entity will implement the Project following UNDP's Direct Implementation Modality, in accordance with the Financial Regulations and Rules of UNDP, the terms of the SBAA entered into between UNDP and the government of the Host Country, dated 07 December 1995, and in accordance with the policies and procedures outlined in the UNDP Project and Operations Policies and Procedures.

The Project will be implemented over a six-year period, and UNDP will act as the Executing Entity.

In line with UNDP policies and procedures for direct implementation, the Accredited Entity shall sign a Project Document in accordance with the AMA. For the avoidance of doubt, as the Accredited Entity will act as the Executing Entity for the implementation of the Funded Activity, the Project Document shall not be considered a Subsidiary Agreement. The Project Document will outline the detailed financial, procurement and implementation plan of the Project.

The Project Document shall reflect the following implementation arrangements:

- (a) The Project will be executed through the UNDP (as the Executing Entity) following UNDP's Direct Implementation Modality.
- (b) The Executing Entity will be required to establish a Project Board, responsible for making management decisions, oversee implementation and review compliance with applicable requirements for the Project. In addition to UNDP, senior representative of the Ministry of Foreign Trade and Economic Relations of the Host Country (MOFTER, GCF Focal Point), the Ministry for Spatial Planning, Civil Engineering and Ecology (MSPCEE, UNFCCC focal point), the Ministry of Agriculture, Water Management, and Forestry of Federation of Host Country, the Ministry of Agriculture, Forestry, and Water Resources of Republika Srpska, State, Entity and Canton Red Cross, Association of Cities and Municipalities, Entity, Canton and municipal Civil Protection will be represented at the Project Board.
- (c) The Executing Entity will recruit a Project Manager responsible for the day to day operation of the Project to be supported by a national Project Management Unit ("PMU"). The Project Manager is responsible for day-to-day management and decision-making for the project within the Annual Work Plan endorsed by the Project Board and approved by UNDP.
- (d) The PMU will be hosted by the UNDP Country Office in the Host Country. The PMU will also include a Safeguards Officer who will be responsible for overseeing and coordinating the implementation of safeguards across the whole of the project, ensuring consistency of approach and reporting from the separate Water Agencies/contractors. The Safeguards Officer will support the application of the ESMP and other project safeguard documents so as to meet UNDP Social Environmental Standards (SES) requirements.



#### Schedule 4. Reporting

##### A. Reporting Period

The Reporting Period is from the Effective Date to the Completion Date, which covers the duration of the Project implementation of six (6) years as specified in the Funding Proposal and subject to the Project Calendar specified below.

The reports stated in the Project Calendar below shall be submitted by the Accredited Entity as per the indicated timing.

##### B. Project Calendar milestones

The APRs, Financial Information, audited and unaudited financial statements shall be submitted as set out in the AMA within the Reporting Period, with the following specifications.

Milestones	Timing
Start of Project Implementation	Effective Date
Inception Report	Within six (6) months from the Effective Date
Baseline Assessments	Within twelve (12) months from the Effective Date
Independent Interim Evaluation Report	Within three (3) months from Year three (3)
End of Project Implementation	Completion Date
Project Completion Report (Final APR)	Within three (3) months from the Completion Date
Independent Terminal Evaluation Report	Within three (3) months of submission of Project Completion Report



## Schedule 5. Request for Disbursement

[UNDP'S LETTERHEAD]

[DATE]

Green Climate Fund  
175, Art Center-daero  
Yeonsu-gu, Incheon 22004  
Republic of Korea  
Attn: [CFO]

Ref: Request for Disbursement – Funded Activity Agreement – Funded Activity: FP216 - Request for Disbursement [No. \_\_\_\_\_]

Ladies and Gentlemen:

1. Reference is made to the Funded Activity Agreement dated as of [DATE] (the "Agreement") between the United Nations Development Programme (the "Recipient") and the Green Climate Fund ("GCF"). Capitalized terms used but not defined in this request have the meanings assigned to them in the Agreement. The rules of interpretation set forth in Clause 1 of the Agreement shall apply to this request.
2. The Recipient irrevocably requests disbursement on [DATE] (or as soon as practicable thereafter) of:
  - (a) the amount of [\_\_\_\_\_] USD under the Agreement (the "Disbursement"), in accordance with Clause 3 of the Agreement, to be transferred to the Accredited Entity – Account No. 36349562, (Acct Name-UNDP Contributions Account), SWIFT CITIUS33/ABA021000089 at Citibank N.A. at 111 Wall Street in New York/USA 10043; and
  - (b) the amount of [\_\_\_\_\_] USD as payment of the Accredited Entity Fee, in accordance with Clause 4 of the Agreement, to be transferred to the Account No. Account No. 36349562, (Acct Name-UNDP Contributions Account), SWIFT CITIUS33/ABA021000089 at Citibank N.A. at 111 Wall Street in New York/USA 10043.
3. The Recipient certifies that all applicable conditions precedent set forth in Clause 9 of the Agreement have been satisfied.
4. The Recipient further certifies that the proceeds of all Disbursements shall be applied only for the purpose described in Clause 3 of the Agreement.
5. Furthermore, the Recipient confirms that there is no Event of Default occurring with respect to the Funded Activity Agreement and/or the Project Document.
6. The above certifications are effective as of the date hereof and shall continue to be effective as of the date of disbursement for this Disbursement. If any certification is no longer valid as of or prior to such Disbursement, the Recipient will notify GCF immediately and, on demand, repay the Disbursement (or any portion thereof) if the Disbursement is made prior to GCF's receipt of such notice.
7. The Recipient acknowledges hereby that the total amount of funds disbursed:
  - (a) as Grant under the Agreement up to the current date, without considering the funds to be disbursed under this request, is USD [\_\_\_\_\_]; and
  - (b) as Accredited Entity Fee under the Agreement up to the current date, without considering the funds to be disbursed under this request, is USD [\_\_\_\_\_].

Yours truly,  
United Nations Development Programme

By: \_\_\_\_\_  
Authorized Representative



## Schedule 6. Notice of Payment

[UNDP'S LETTERHEAD]

Green Climate Fund  
175, Art Center-daero  
Yeonsu-gu, Incheon 22004  
Republic of Korea  
Attn: [CFO]

[DATE]

Ref: Notice of Payment – Funded Activity Agreement – Funded Activity: FP216 – Notice of Payment [No. [\_\_\_\_]]

Ladies and Gentlemen:

1. Reference is made to the Funded Activity Agreement dated [DATE] (the “**Agreement**”) between the United Nations Development Programme (the “**Accredited Entity**”) and the Green Climate Fund (“**GCF**”). Capitalized terms used but not defined in this notice have the meanings assigned to them in the Agreement. The rules of interpretation set forth in Clause 1 of the Agreement shall apply to this notice.
2. The Accredited Entity notifies payment on [DATE] (or as soon as practicable thereafter) of the following amounts:  
*[Insert details on the amounts of the Investment Income and/or unused funds being transferred to the GCF.]*
3. The Accredited Entity shall transfer such amounts to the bank account communicated by the Fund in writing.
4. The Accredited Entity acknowledges the right of the GCF to object to the amounts described in paragraph [2] above and/or to request further information on their calculation.

Yours truly,  
United Nations Development Programme

By: \_\_\_\_\_  
Authorized Representative

By: \_\_\_\_\_  
Authorized Representative





## Schedule 7. Eligibility Criteria

The final eligibility criteria for the selection of: (i) the communities where CBEWS will be implemented under Activity 1.3, (ii) FRM practitioners to receive training under Activity 2.3, (iii) beneficiaries of the training programmes under Activity 2.4, and (iv) beneficiary communities under Activity 3.2, will be as follows:

### **(i) the communities where CBEWS will be implemented under Activity 1.3,**

Activity 1.3 / Sub-Activity 1.3.2. Implement CBEWS for high priority communities:

The choice of the 60 communities will be made based on the risk assessment and mapping completed under the Activity 1.2 which will identify the communities most at risk from each hazard. Communities' willingness to participate and actively engage in the EWS activities will be one of the key criteria for the final selection of beneficiaries under this activity.

### **(ii) FRM practitioners to receive training under Activity 2.3,**

Sub-Activity 2.3.3: Review and implement training required for new non-structural measures:

Training will be provided for 200 FRM practitioners, who will represent all levels and relevant types of stakeholders (entity, municipal, community). Practitioners will include representatives from all three Water Agencies, Hydrometeorological institutions, Agricultural extension services experts, municipalities, Forestry departments, Agriculture departments, design companies. Gender-responsive selection of training participants will be ensured in accordance with the GAP and in line with the principles of equity and inclusivity. Selection of practitioners will be based on their individual expertise and their mandates/TORs in their respective institutions.

### **(iii) beneficiaries of the training programmes under Activity 2.4,**

Sub-Activity 2.4.3: Implement community-based training and awareness raising initiatives at community level: communities will be prioritized based on the risk assessment and mapping completed under the Activity 1.2 which will identify the communities most at risk from each hazard. Gender-responsive selection of training participants will be ensured in accordance with the GAP and in line with the principles of equity and inclusivity.

### **(iv) beneficiary communities under Activity 3.2,**

Activity 3.2: Formulate multi-year climate resilient municipal investment plans and gender responsive community preparedness plans in selected municipalities (10-12 highest risk communities) and in one canton in Vrbas, Una-Sana, Bosna, Drina, Neretva and Trebišnjica basins:

The most vulnerable municipalities and cantons will be identified through the enhanced hazard and risk modelling and mapping to be undertaken under Activity 1.2. Using the example of Community Emergency Flood Preparedness Plans (CEFPP), the GCF project will support the development of community preparedness plans for the most vulnerable 10-12 communities in the target basins (where such updated plans do not yet exist) in line with the procedure, methodology and content of CEFPP in B&H as defined by Law of Protection and Rescue in RS and FB&H including cantons.



## Schedule 8. Sub-Project Disclosure Communication Process

### I. INTRODUCTION

Pursuant to the procedure agreed by the Parties in relation to eight non-structural flood risk reduction measures under Activity 2.2.2 (hereafter Sub-Projects) that involve complex Moderate risks determined through the project's ESAR/ESMF and fall into the GCF ESS Category B, the Accredited Entity shall deliver their draft Disclosure Packages for the review and comment by the Fund using the process stipulated in Schedule 8 Section II (Disclosure Process) and take into account such comments in their finalization of the Category B Disclosure Packages.

These Sub-Projects will be disclosed in accordance with the policies and procedures of the Accredited Entity's disclosure policies and practices that will also include the information described below, for a period of at least thirty (30) calendar days prior to the relevant Accredited Entity approval of their implementation (the "Disclosure Period").

The Disclosure Package will include ("Sub-Project Disclosure Package"):

1. The project disclosure summary, which will include the following items ("Sub-Project Disclosure Summary"):
  - A. The purpose, nature, and scale of the activities, and the intended beneficiaries;
  - B. The duration of proposed activities;
  - C. A summary of stakeholder consultations and the planned stakeholder engagement process; and
  - D. The available grievance mechanism(s) to receive complaints and facilitate the resolution of such from affected and potentially affected communities, groups and individuals.
2. The following annexures:
  - A. Completed ESS disclosure report form, in the format contained in Exhibit A of this Schedule X ("**Sub-Project Disclosure Form**");
  - B. Preliminary or fit-for-purpose Environmental and Social Impact Assessment (ESIA) for the relevant Sub-Project;
  - C. Where applicable, Environmental and Social Management Plan (ESMP), if separate from the ESIA;
  - D. Where applicable, the Resettlement Action Plan and/or Livelihood Action Plan for the relevant Sub-Project;

The Sub-Project Disclosure Package, comprising both the Sub-Project Disclosure Summary and applicable annexures, shall be made available to the public in English and the local language (if not English). The Accredited Entity shall ensure that all disclosures can be accessed through the Accredited Entity's website via a weblink and in locations convenient to affected peoples in English and the local language (if not English).

### II. DISCLOSURE PROCESS

The following outlines the communication process to be followed by the Fund and the Accredited Entity in relation to making environmental and social (E&S) report disclosures for Sub-Projects to be considered for final approval by the Accredited Entity.



- A. The Accredited Entity will submit the Sub-Project Disclosure Package to the Fund, per the template in **Exhibit A**, at least five (5) GCF working days prior to the intended start of the relevant Disclosure Period. This does not preclude the possibility for the Accredited Entity to undertake, when it deems appropriate, additional early consultations with the Fund or the stakeholders concerned already during the preparation of environmental and social (E&S) reports that will be disclosed through Sub-Project Disclosure Packages. This does not oblige GCF to review sub-project related information prior to a formal submission of the sub-project disclosure package.
- B. The Fund will review the Sub-Project Disclosure Package prior to the intended start of the relevant Disclosure Period, and will confirm to the Accredited Entity that the Sub-Project Disclosure Package is in accordance with the Fund's requirements and that it agrees with the assigned E&S risk category.
- C. If the Fund does not agree with the assigned risk category or on the Sub-Project Disclosure Package, it will inform the Accredited Entity within the same time period set out in paragraph B above. If the Fund and the Accredited Entity agree on any amendments to the Sub-Project Disclosure Package, the process will start again from point II.A.
- D. At least one (1) GCF working day prior to the intended start of the Disclosure Period, the Accredited Entity shall disclose on its website the Sub-Project Disclosure Package and submit the Sub-Project Disclosure Package to the Fund, which shall include a link on the Accredited Entity's website to the Sub-Project Disclosure Package, for subsequent distribution to the GCF Board and the Fund's active observers and for publishing in the GCF website;
- E. Upon receipt of the submission under point II.D, the Fund shall send a Sub-Project Disclosure Form and an accompanying transmittal message to the GCF's board members ("**Board Members**") and the GCF's active observers ("**Active Observers**") and publish the Sub-Project Disclosure Form on the GCF's webpage <https://www.greenclimate.fund/safeguards/environment-social/reports> (or as may be amended from time to time) and will confirm to the Accredited Entity by email that this disclosure has been made.
- F. The relevant Disclosure Period begins from the date that the Sub-Project Disclosure Package has been sent to the Board Members and the Active Observers and published on the GCF's website. The Accredited Entity meeting to approve the relevant Sub-project shall not be held until after the expiration of the applicable Disclosure Period.

### III. POST-DISCLOSURE COMMUNICATION

- A. In accordance with the Fund's applicable processes, the Fund is the formal recipient of all feedback received from the Board Members and Active Observers in relation to Sub-Project E&S report disclosure. Should comments and/or questions be received by the Accredited Entity directly, the Accredited Entity will log the feedback in accordance with its Environmental and Social Management System (ESMS).
- B. Comments and/or questions from Board Members and/or Active Observers are to be submitted to the GCF Secretariat's email account [subprojectcomments@gcfund.org](mailto:subprojectcomments@gcfund.org) on or before the deadline specified by the Secretariat in the aforementioned transmittal message to the Board Members and/or Active Observers, with such deadline being eleven (11) calendar days prior to the expiration of the Disclosure Period. The GCF Secretariat will forward such comments and/or questions received from its Board Members and/or Active Observers to the designated focal points of the Accredited Entity within three (3) Business Days of receipt and in any event no later than ten (10) calendar days prior to the expiration of the Disclosure Period.





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- C. Notwithstanding point III.B. immediately above, comments and/or questions may be submitted by the Board Members and/or Active Observers later than eleven (11) calendar days prior to the expiration of the Disclosure Period, but prior to the expiration of the Disclosure Period itself. In such case, comments and/or questions will be communicated directly to the Accredited Entity's focal point(s) by the Secretariat, noting the limitations in terms of the potential for inclusion of such comments and/or questions in relation to points III. D. to F. below.
- D. If deemed applicable and relevant by the Accredited Entity, comments from the Board Members and/or Active Observers and the GCF Secretariat will be incorporated into documents to be presented at the relevant Accredited Entity meeting (the "Board Pack").
- E. If relevant and applicable, the Accredited Entity will present during the Accredited Entity meeting approving the relevant Sub-project in question the feedback received from Board Members and/or Active Observers and/or the GCF Secretariat, along with information describing how it has incorporated this feedback, as appropriate and where relevant, by including it in the Board Pack or other investment documentation.
- F. Within five (5) business days after the Accredited Entity's meeting for the approval of the relevant Sub-project, the Accredited Entity shall submit to the GCF Secretariat, a summary of comments received from relevant stakeholders including comments and/or questions raised by Board Members and/or Active Observers and/or the GCF Secretariat (if any) with appropriate feedback from the Accredited Entity as to how the relevant comments received have been taken into consideration and/or addressed, in accordance with the Accredited Entity's policies and procedures and the Programme's/Project's Environmental and Social Management System/Framework (ESMS/F).





### Exhibit A: Sub-Project Disclosure Form

#### ESS disclosure report form for subprojects

##### Environmental and social report(s) disclosure

<b>Accredited entity</b>	
<b>Programme</b>	
FP number and programme title	
Sector (public/private)	
Location (target country and, if any, specific areas)	
ESS category	
Board decision and date	Decision B.XX/XX, para. (X), on Date Month Year]
<b>Subproject</b>	
Subproject title	
ESS category	
Location (target country and, if any, specific areas)	
<b>Environmental and Social Impact Assessment (ESIA) (if applicable)</b>	
Date of disclosure on AE's website	
Language(s) understandable to affected peoples	
Link to disclosure	
Other link(s)	
Remarks on compliance with GCF policies	In accordance with the Green Climate Fund's Information Disclosure Policy (the "Policy"), the AE plans to disclose information relating to a Category A/B Sub-Projects being considered for investment. This disclosure is intended to satisfy the requirement set out in paragraph 17 of the GCF Policy to disclose an ESIA and ESMP (included as part of the ESIA), as



	defined below, at least 120/30 days in advance of the Accredited Entity's investment decision.
<b>Environmental and Social Management Plan (ESMP) (if applicable)</b>	
Date of disclosure on AE's website	
Language(s) understandable to affected peoples	
Link to disclosure	
Other link(s)	
Remarks on compliance with GCF policies	
<b>Environmental and Social Management System (ESMS) (if applicable)</b>	
Date of disclosure on AE's website	
Language(s) understandable to affected peoples	
Link to disclosure	
Other link(s)	
Remarks on compliance with GCF policies	
<b>Any other relevant ESS reports and/or disclosures (if applicable), e.g. Indigenous Peoples Plan (IPP), Indigenous Peoples Planning Framework (IPPF), Resettlement Action Plan (RAP), Resettlement Policy Framework (RPF)</b>	
Description of report/disclosure	
Date of disclosure on AE's website	
Language(s) understandable to affected peoples	
Link to disclosure	



Other link(s)	
Remarks on compliance with GCF policies	
<b>Disclosure in location(s) convenient to affected peoples</b>	
Date(s)	
Place(s)	
<b>Provision on disclosure at the subproject level</b>	[Insert relevant Clause in the Funded Activity Agreement (FAA)]
<b>Date and place of Accredited Entity meeting</b>	

Note: This form was prepared by the Accredited Entity stated above. For reference, the ESS disclosure report form for the Programme is attached.