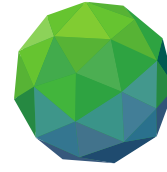




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United Nations Development Programme

**Project Document template for nationally implemented projects
financed by the Green Climate Fund (GCF)**

Project title: Scaling-up Investment in Low-Carbon Public Buildings	
Country: Bosnia and Herzegovina	
Implementing Partner: UNDP Bosnia and Herzegovina	Management Arrangements : Direct Implementation (DIM)
UNDAF/Country Programme Outcome: Outcome 05 - By 2019, legal and strategic frameworks enhanced and operationalized to ensure sustainable management of natural, cultural and energy resources	
UNDP Strategic Plan Output: Output 1.5: Inclusive and sustainable solutions adopted to achieve increased energy efficiency and universal modern energy access (especially off-grid sources of renewable energy)	
UNDP Social and Environmental Screening Category: Low	UNDP Gender Marker for the project output: GEN2
Atlas Project ID (formerly Award ID): 00100067	Atlas Output ID (formerly Project ID): 00103203
UNDP-GEF PIMS ID number: 5882	GCF ID number: FP051
Planned start date: 29 May 2018	Planned end date: 28 May 2026

LPAC meeting date: TBD

Pre-Pac Meeting date: 22 December 2016

Brief project description:

Due to a long period of neglect and under-investment during and after the Bosnian war (1992-1995), public infrastructure, in particular buildings, in Bosnia and Herzegovina (BiH) is now in a dire state and in urgent need of upgrade and modernization. In its Nationally Determined Contribution (NDC) under the Paris Agreement, BiH explicitly recognizes the potential of **public sector buildings** for GHG emission reduction and emphasizes that to *“increase emission reduction amount and develop a sustainable system for public building renovation, international financial support is required”*.

The project seeks a total of US\$ 17.346 million of GCF grant resources to overcome identified barriers to investment in low-carbon retrofits of public buildings and to leverage an additional US\$ 105.22 million of co-finance from a range of sources, such as the Environmental Funds, entity and municipal budgets, and international organizations (UNDP, GEF, World Bank, SIDA), by addressing country and sector-specific investment risks, as follows:

- **Output 1** will provide technical assistance (TA) to public and private sector stakeholders at municipal, cantonal, entity and national level in BiH to help address non-financial barriers, and to create conducive policies, regulations and capacities for implementation of the National Investment Framework for Low-Carbon Public Buildings
- **Output 2** will facilitate implementation of the National Investment Framework for Low-Carbon Public Buildings, including the required investment support to improve risk-return profiles and to bring prospective low-carbon building projects to financial close.

Overall, the project will result in a direct reduction in greenhouse gas (GHG) emissions of 2,02 million tCO₂e over the lifetime of the investments enabled, at a cost to the GCF of US\$ 9/tCO₂e. Additionally, significant indirect emissions can be expected –7.1 - 8.1 million tonnes of CO₂ reduction due to the project enabled market transformation – yielding a total estimated cost per tonne of CO₂ reduced to US \$1.8. The project will also directly benefit 150,000 people – occupants and users of public buildings (4% of the total population), including 80,000 women, and will lead to creation of over 5,630 new full-time equivalent (FTE) jobs.

FINANCING PLAN

GCF grant	17,346,000 USD
UNDP TRAC resources	300,000 USD
Cash co-financing to be administered by UNDP	-
(1) Total Budget administered by UNDP	17,646,000 USD
PARALLEL CO-FINANCING	
UNDP	4,050,000 USD ¹
Government	100,868,000 USD

¹ 2,300,000 USD of 4,050,000 USD will come from GEF funded UNDP implemented project, titled Catalyzing Environmental Finance for Low-Carbon Urban Development.

(2) Total co-financing	104,918,000 USD	
(3) Grand-Total Project Financing (1)+(2)	122,564,000 USD	
SIGNATURES		
Signature: print name below	Agreed by UNDP	Date/Month/Year:

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 8 and 9.02 of the FAA). 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, and understands that availability of GCF funding is contingent on meeting such requirements and such compliance.

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I. DEVELOPMENT CHALLENGE

1. Due to a long period of neglect and under-investment during and after the Bosnian war (1992-1995), public infrastructure, in particular buildings, in BiH is now in a dire state and in urgent need of upgrade and modernization. Over 70% of BiH's public buildings were designed and built over 30 years ago with no consideration for their energy performance, let alone carbon footprint.
2. BiH is a middle-income country, with a high unemployment rate (27.7%) and a GDP per capita of US\$ 4,616 (2015). Economic growth was set to accelerate in 2014 but the severe flooding in May 2014 dramatically changed the outlook. Estimates have put the total economic impact of the floods and subsequent landslides at between 5-10% of GDP and revised expectations have pointed to modest economic growth ever since (1.4% in 2014; 2.8% in 2015; 2.4% in 2016).
3. Public buildings have been identified as the sector with the largest potential for cost-effective energy saving in BiH (20-60%)². Detailed energy audits conducted in public facilities by UNDP confirm that average energy use in a building can be reduced cost-efficiently by about 60%, assuming a given comfort level in the building (e.g. 20°C) before and after retrofitting. In addition to energy efficiency, significant potential for GHG emissions reduction lies in fuel switch³ measures: over 80% of public sector buildings are currently using fossil fuels (coal, light fuel oil (LFO), natural gas) or district heating systems, which are also predominantly coal-based. Deployment of BiH's vast renewable energy resources – bioenergy (biomass/biogas), solar and other sources – combined with investments in energy efficiency, therefore have the potential to play an instrumental role in reducing GHG emissions and energy use in public buildings, currently amounting to approximately 10% of BiH's annual governmental budget. In total, the cost-effective energy savings potential in public buildings is estimated at around 700 GWh/year⁴, which translates into **560,000 tCO₂/year** or **over 10 million tCO₂** in GHG emissions reduction over the investment life-cycle for both energy efficiency (EE) and renewable energy (RE) measures in buildings.

Fragmented jurisdictions and weak capacities

4. Public buildings, *i.e. buildings that belong to a state, municipality or other type of public authority and are used by the public*⁵, come in a wide variety of shapes, sizes and purposes, and they have been built at different times according to different standards. Consequently, addressing energy use in any given building requires a tailored approach, which needs to reflect the specifics of a particular building. Such an approach carries significant upfront transaction costs.
5. Due to the fragmented and complex inter-authority jurisdictions (as shown in Table 1), especially in FBiH, authorities and line ministries do not possess a clear overview of public buildings under their jurisdiction, not to mention energy- and water-related consumption and the costs they incur on a

² World Bank, *Status of Energy Efficiency in the Western Balkans: A Stocktaking Report*, Report No. AAA49-7B, 2010

³ Fuel switch measures (i.e. replacement of boiler and change of baseline fuel source) have a double impact on energy use/GHG emission reductions in buildings. First, large energy saving/GHG emission reduction (30-40%) can be achieved through enhancement of the fuel utilization coefficient: older, inefficient boilers utilize only 60% of fuel to heat, whereas new, efficient boilers utilize up to 94% of fuel to heat. Second, replacing fossil fuel with renewable energy alternatives, such as biomass or solar, means that the residual energy (heat) demand in buildings can be supplied on a zero-emission basis.

⁴ UNDP's own estimates based on data from EMIS, detailed energy audit, as well as other sources.

⁵ State-provided accommodation (e.g. council apartments, public housing) are excluded from the GCF project

monthly basis: public expenditures on energy and water are not monitored, recorded or analyzed in any systematic way. Official data on energy intensity of public building stock do not exist. Although draft plans for improved energy performance in buildings (Operational Energy Efficiency Action Plans of public sector buildings in several Cantons in FBiH and Energy Efficiency Action Plan of Republika Srpska in RS) are being laid down, a comprehensive policy implementation platform and monitoring framework for public buildings is missing and has to be put in place to promote and enable low-carbon investment on the ground.

Table 1 Jurisdiction of Public Buildings in BiH

Type	FBiH	Jurisdiction in FBiH	RS	Jurisdiction in RS
Schools	1,141	Cantonal* Ministries of Education	603	Ministry of Education and Culture
Kindergartens	119	Cantonal Ministries of Education**	87	Ministry of Education and Culture
Health care	494	Cantonal Ministries of Health/Federal Ministry of Healthcare	123	Ministry of Health and Social Welfare
Culture	134	Cantonal Ministries of Culture and Sports	133	Ministry of Education and Culture
Municipalities	86	Municipalities***	28	Municipalities****
Social institutions	89	Cantonal Ministries of Social Welfare	28	Ministry of Health and Social Welfare/Municipalities
Universities	49	Cantonal Ministries of Education	17	Ministry of Education and Culture
Other	484	Majority-Cantonal	335	Mostly Municipalities

* There are 10 cantons in FBiH.

** For Zenica-Doboj Canton and K10 Canton, kindergartens are under municipal jurisdiction.

*** There are 79 municipalities in FBiH.

**** There are 64 municipalities in the Republic of Srpska.

Source: UNDP's own calculation based on EMIS data

- Multiple public authorities and entities in charge of public building management and building end-users lack essential capacities to identify, prepare and implement low-carbon investment projects. Lack of human and technical resources, information, as well as practical experience with project identification and preparation, and with implementation planning and business-models for low-carbon investment in the public sector, represent another important non-financial barrier that needs to be overcome.

Limited access to finance

- Municipalities:** Traditionally, municipalities in BiH rely on sub-national governments and institutions to provide grants and direct transfers to finance their capital investments, but with public expenditures already at 50% of GDP and net Government debt at 39.3% of GDP in 2016⁶, such funding is increasingly difficult to obtain. Commercial lending is only in its beginnings and municipal authorities have to be creditworthy to access commercial financing. The barriers to access funding also stem from the

⁶ Source: Eurostat

inadequate legal and regulatory framework, such as (i) a one-year budgeting process that prevents municipalities from amortizing investments through future energy savings; (ii) the requirement to keep separate accounts for capital and operating expenditures that makes investments (considered capital expenditures) difficult to repay using energy cost savings (considered operating expenses); (iii) line-item budgeting prevents municipalities from using money budgeted for paying energy bills for the repayment of loans for EE investments instead; (iv) there is a lack of budgetary provisions for retaining energy cost savings in future years to repay any debts incurred; (v) the short-term perspectives of local policy-makers makes low-carbon investments that have a payback period longer than 5 years less attractive; and (vi) limitations on local borrowing.

8. **Private sector:** The Energy Service Company (ESCO) business model has been proven in many countries as the best approach for rolling-out EE projects in public sector buildings, for the reason that the ESCO modality offers both a technical and a financial solution to promote energy-efficiency investment. However, in the specific situation of BiH, a pure ESCO-based approach to finance EE retrofits may not be the best solution (yet!): there are no large ESCOs with a strong balance sheet, good credit worthiness and access to affordable finance. Local ESCOs are exclusively SMEs with limited borrowing capacity. In addition, interest rates are high, which makes borrowing even more difficult as the ability to take on affordable debt is often limited. This creates obstacles for ESCOs to engage in multiple projects using an EPC contracting modality. However, local SMEs are the key implementation delivery agents and are crucial for EE market transformation. Therefore, a hybrid solution will need to be devised involving international and national funding sources, municipalities, commercial banks and SMEs in order to start-up and boost the nascent ESCO market in BiH and enable its growth and a steady increase in capital inflows for public buildings low-carbon retrofit programmes.

Low Financial Returns

9. Investment in low-carbon buildings offers significant socio-economic benefits but does not yet present a convincing financing case for investors. There are several underlying reasons for this. First, low existing comfort levels reduce the share of achievable energy cost savings. UNDP experience confirms that **under-heating and below-standard lighting** are widespread, particularly in school buildings, resulting in longer payback periods in these buildings as the increase in comfort levels absorb significant parts of the achieved energy efficiency improvements. “Under-heating” is defined as the difference between calculated final energy demand for heating based on building audits and indoor temperature requirements, and the real energy consumption based on energy bills. The latter is usually much lower: 44% of public sector buildings are under-heated in BiH and they use 20-30% less energy than required to ensure sufficient thermal comfort (approximately 20-22°C). Consequently, after a building retrofit is implemented, thermal comfort normally improves
10. Second, financial returns on low-carbon investment in buildings vary significantly depending on the type and costs of **baseline fuel supply in buildings**: in buildings with light fuel oil (LFO) as the baseline fuel, investment in energy efficiency and fuel switching can be attractive, whereas for buildings with coal-based heat systems (and especially taking “under-heating” into account) investment in the same package of technical measures would not bring sufficient returns. This explains the large spread in financial IRR of otherwise identical EE-RE measures, as illustrated in Table 2. Under such parameters, only a few projects can be financially viable on their own and can secure commercial financing (e.g. loans at 8-10%) without additional grant support or other forms of financial incentives.

Table 2 Financial and Economic IRR of EE and RE Measures in Public Buildings

Baseline fuel	Adequate occupancy conditions		20% Under-heating*	
	Financial IRR	Economic IRR	Financial IRR	Economic IRR
Coal	3%	14%	-1%	8%
LFO	27%	35%	11%	17%

* Occurs in 44% of public buildings.

11. Third, maintenance practices in public sector building are, as a rule, inadequate and most buildings do not have skilled energy managers. Building maintenance managers are not for the most part trained as energy managers. As a consequence, buildings are in poor shape, and, when an EE retrofit project is to be implemented, it has to involve a number of interventions that are not directly EE-related, but cannot be omitted, such as a leaking roof, outdated electrical and plumbing installations, etc⁷.
12. In conclusion, the current financing paradigm for investment in low-carbon retrofits of public buildings in BiH can be summarized as follows:
 - The existence of seemingly numerous, but cumulatively insignificant, grant-based funding sources/projects from national and international organizations complemented by end-users' own finance;
 - The lack of a coordinated and integrated approach to public building retrofits that leads to ineffective and sub-optimal allocation of public funds;

The lack of private sector involvement and interest in market-based finance, including lack of a developed market for the ESCO business model and energy performance contracts.

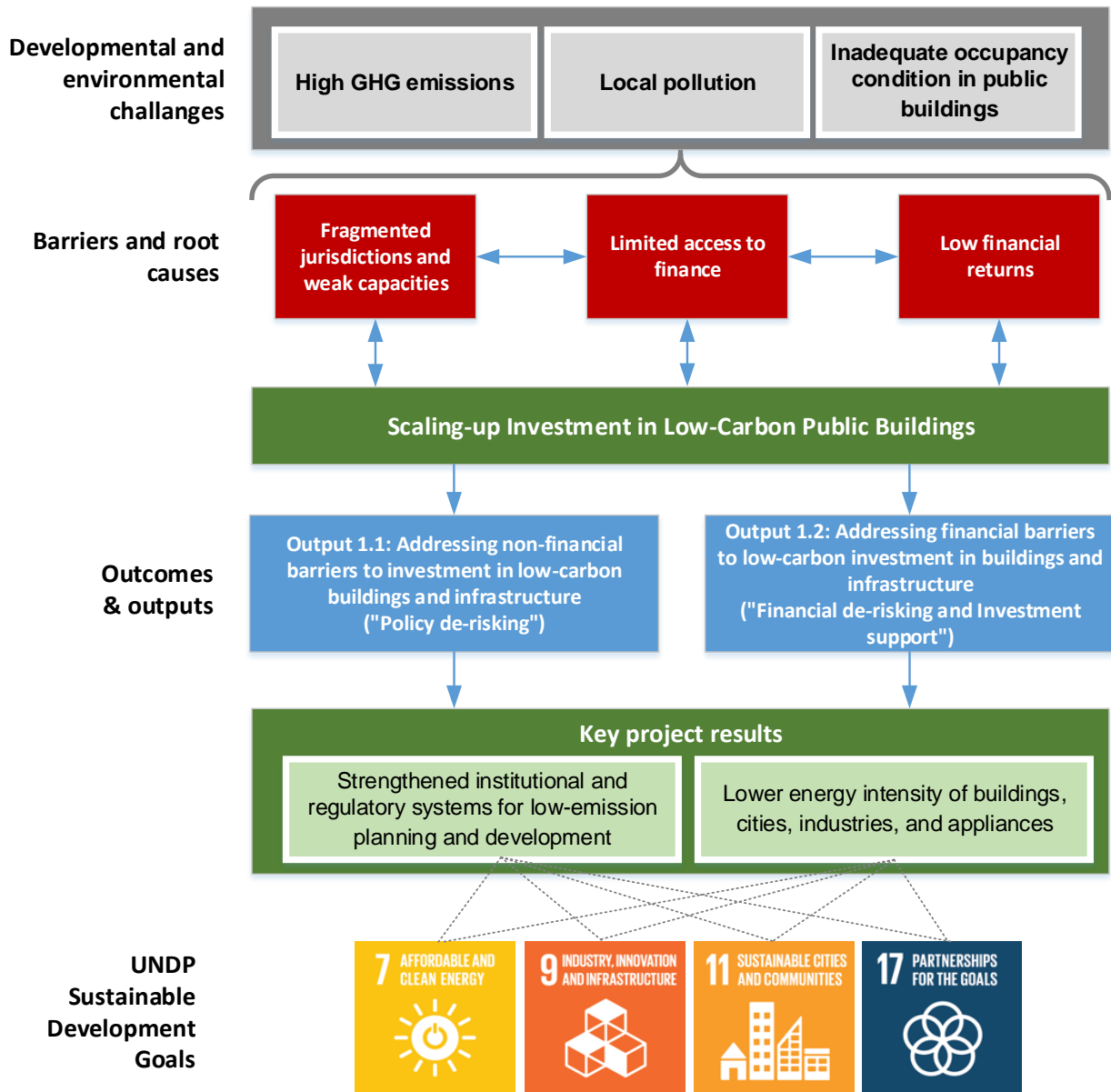
⁷ Note that non-EE related technical measures will not be covered with GCF funding and will be co-financed by end-users

II. STRATEGY

13. The objective of the proposed project is to scale-up investment in *low-carbon public buildings* via design and implementation of the National Framework for Low-Carbon Investment in Public Buildings, comprising an integrated package of policy, regulatory, technological, informational, financial and managerial solutions designed to address country-specific risks and barriers to investment. The GCF project will result in a four- to five-fold increase in the level of investment in low-carbon public buildings; this, in turn, will enable BiH to meet its stated objective to reduce GHG emissions from the public buildings sector.
14. Building on UNDP's De-risking Renewable Energy Investment (DREI) approach⁸, the proposed project consists of two closely related outputs aimed at addressing financial and non-financial barriers respectively, thereby reducing the risks and achieving an attractive and acceptable risk-return profile. The proposed project consists of two components/outcomes dealing with policy and financial de-risking. Output 1.1 will address policy barriers faced by investors into low-carbon buildings and infrastructure by supporting the development and implementation of enabling policy framework. Under Output 1.2, in partnership with local and international financial institutions, the project will facilitate access to green energy finance at affordable terms. See also Figure 1 for graphical presentation of the Theory of Change.

⁸ UNDP's de-risking clean energy investment framework helps identify the most cost-effective packages of public interventions in a given national context with the aim of achieving a risk-return profile for clean energy projects that can attract large volumes of investment. For more information on UNDP's de-risking work, please visit www.undp.org/DREI.

Figure 1 Theory of Change



15. The project will result in a real and visible paradigm shift in the BiH public building sector towards low-carbon sustainable development, as specifically recommended in the Nationally Determined Contribution, the National Communication to the UNFCCC and the National Climate Change Strategy of BiH.
16. The project is expected to result in **direct** emission reductions of 2,019,976 tCO₂e by facilitating and scaling-up investment in low-carbon retrofits in 430 public buildings (representing 11% of the total public building stock in the country). Low-carbon retrofit projects include both EE and fuel switch measures in all buildings.

17. The project’s ambitious goal is to make 180 public buildings coal-free and to enable, in total, 430 public buildings (or 9% of the total building stock) to reach a zero-carbon footprint (as far as heating energy use is concerned) by supporting implementation of low-carbon public building retrofits with combined EE and RE solutions: an ambitious goal considering the circumstances of a country.
18. In addition to contributing to global environmental benefits, the project will improve the access of local communities, including vulnerable communities, to clean, safe and affordable energy: the retrofitted public buildings will provide improved occupancy conditions, affordable clean, adequate warmth in schools and hospitals and improved indoor and outdoor air quality. The project’s EE/RE integrated measures in the areas where the public buildings and infrastructure were affected by floods or are at risk will be aligned with the “Build Back Better” principle and will include flood-resistant building materials for EE measures and biomass fuel switch projects, all of which can strengthen resilience through improved resistance to floods and increased reliability and affordability of energy sources.
19. The project will also support duty bearers in the public sector to improve the delivery of services to communities (e.g. through a set of capacity building interventions that will improve skills and competencies to design, implement and operate integrated fuel switch interventions and improved local design of programmes and policies).
20. The project will also change the established paradigm whereby assistance is provided by various agencies in isolation: instead, it will establish a mechanism that combines various financial sources and instruments under one Investment Framework and where resources from each partner are deployed to address a specific risk or barrier to investment, cumulatively ensuring much more attractive terms for investment than if the same assistance were provided in isolation. Figure 2 and Figure 3 illustrate the paradigm shift potential that this project will deliver: a) a 4-fold increase in the amount of annual investment in low-carbon buildings; b) a shift from a grant-based model (87% in 2015) towards a non-grant based model (only 15% in 2025); and c) diversification of funding sources and instruments. It is important to note that only the realization of an alternative financing paradigm will enable BiH to achieve its stated targets under the NDC by 2030.

Figure 2 Current Financing Paradigm for Low-Carbon Public Buildings - 2015

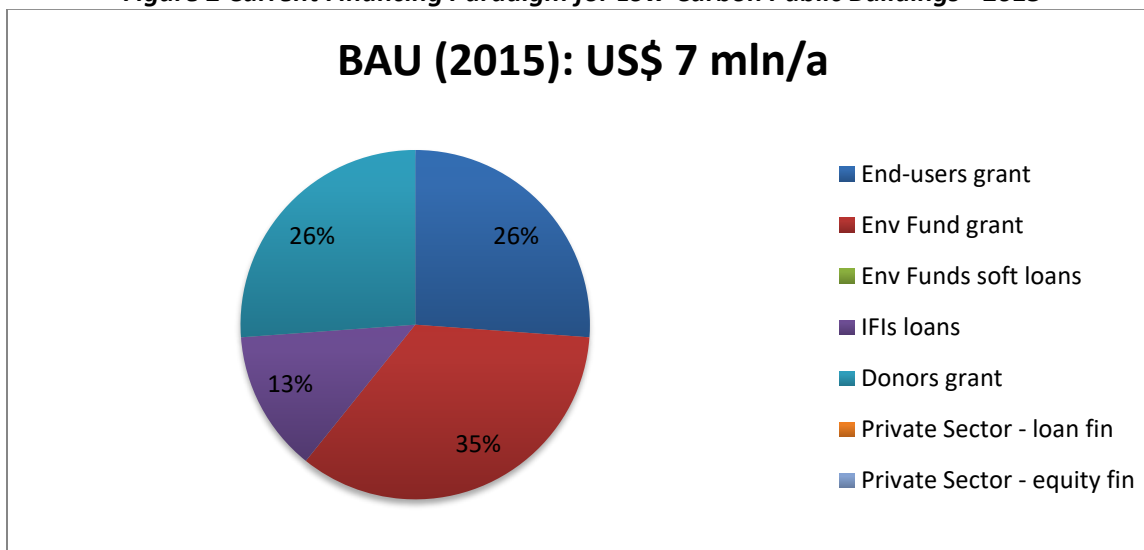
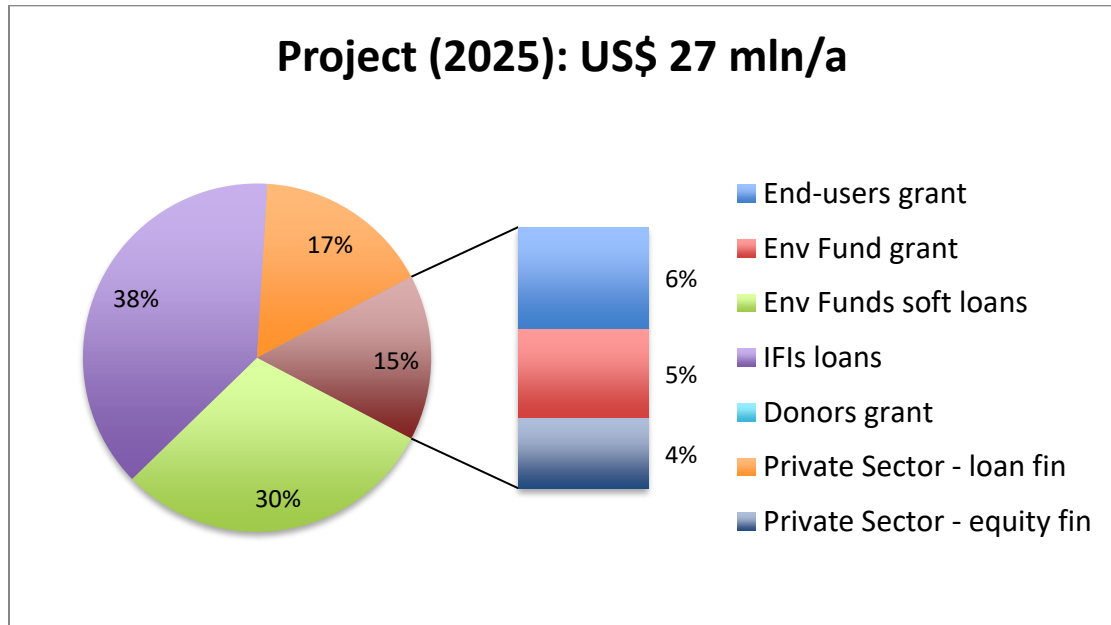


Figure 3 Alternative Financing Paradigm for Low-Carbon Public Buildings - 2025



The proposed low-carbon solutions in public buildings will support the transition towards a zero-carbon public sector with corresponding significant reduction of GHG emissions. In addition, introduction of RE, in particular switch from LFO to locally available biomass will improve security of energy supply to essential public infrastructure, improve conditions for occupants and users of public buildings, most of whom are women and children; reduce local pollution and improve public health; and drive local economic growth and employment. A summary of the project’s quantified sustainable development (SD) impacts is presented in Table 3.

Table 3 Quantified sustainable development benefits

Number of low-carbon public buildings	# of buildings	430
Share of low-carbon public buildings in total public building stock	%	9
Direct beneficiaries	# of people	150 000
# of women beneficiaries	# of women	80 000
Share of beneficiaries relative to total population	%	4%
Number of full-time equivalent (FTE) jobs created	FTE	5,630

21. The cumulative impact of the benefits of the application of the proposed low-carbon solutions in public buildings will:
 - enable the transition towards a zero-carbon public sector with corresponding significant reduction of GHG emissions;
 - make essential public infrastructure energy-independent, thus providing shelter and essential services to local communities during emergencies;
 - improve conditions for occupants and users of public buildings, most of whom are women and children
 - reduce local pollution and improve public health;
 - drive local economic growth and employment.
22. The project’s ambitious goal is to make 180 public buildings coal-free and to enable, in total, 430 public buildings (or 9% of the total building stock) to reach a zero-carbon footprint (as far as heating energy use is concerned) by supporting implementation of low-carbon public building retrofits with combined EE and RE solutions: an ambitious goal considering the circumstances of a country.
23. In addition to contributing to global environmental benefits, the project will improve the access of local communities, including vulnerable communities, to clean, safe and affordable energy: the retrofitted public buildings will provide improved occupancy conditions, affordable clean, adequate warmth in schools and hospitals and improved indoor and outdoor air quality. The project’s EE/RE integrated measures in the areas where the public buildings and infrastructure were affected by floods or are at risk will be aligned with the “Build Back Better” principle and will include flood-resistant building materials for EE measures and biomass fuel switch projects, all of which can strengthen resilience through improved resistance to floods and increased reliability and affordability of energy sources.
24. The project will also support duty bearers in the public sector to improve the delivery of services to communities (e.g. through a set of capacity building interventions that will improve skills and competencies to design, implement and operate integrated fuel switch interventions and improved local design of programmes and policies).
25. The aggregated GHG emission reductions enabled by the project for a total of 430 buildings (180 buildings heated with coal in the baseline and 250 buildings - with LFO) are presented in Table 4:

Table 4 Aggregated direct GHG emission reductions

GHG savings per year	tCO ₂ /p.a	100 999
GHG savings over investment lifetime	tCO ₂	2 019 976
Cost of GCF grant per tonne of abatement	US\$/tCO ₂	9

26. The project will undertake a number of activities beyond individual investments in low-carbon public buildings retrofits that will also stimulate the market for energy efficiency in the building sector. Therefore, there will be **indirect** GHG emission reductions triggered by investments not within the direct control of the project– between 7.1 and 8,1 million tCO₂.

27. The Green Climate Fund is built on the premise of providing finance that is catalytic and plays a paradigm shifting role. This project directly responds to these challenges by proposing an approach that enables both: i.e. catalyzing larger flows of finance for low-carbon investment and shifting the established paradigm about how this investment has to be made. It will support implementation of low-carbon retrofits in 430 public buildings, thus essentially scaling-up current level of investment in the sector by a factor of four to five.

III. RESULTS AND PARTNERSHIPS

Outputs and activities

28. **Output 1.1: Addressing non-financial barriers to investment in low-carbon buildings and infrastructure (“Policy de-risking”).** Under Output 1.1, technical assistance (TA) will be provided to public and private sector stakeholders at municipal, cantonal, entity and national level in BiH to help address non-financial/structural barriers to investment, as follows.
- a. *Activity 1.1.1 Sustainable Energy and Climate Action Plans (SECAPs).* The project will support municipalities across BiH with updating, preparing and monitoring implementation of their Sustainable Energy and Climate Action Plans (SECAPs). SECAPs are the primary policy instrument to promote low-carbon and climate-resilient development level at the local level in BiH: they establish local targets for energy saving/RE deployment, prioritize sectors for investment and assign responsibilities for implementation. As such, they are an essential tool to ensure project sustainability and long-term impacts. In BiH, given its highly decentralized governance system, SECAPs are particularly important to ensure ownership, buy-in and domestic financing. As many as 17 cities/municipalities in BiH have already joined the Covenant of Mayors Initiative by developing and adopting their Sustainable Energy Action Plans (SEAPs)⁹ and specific energy-saving and GHG emission reduction targets, which cumulatively represent a commitment to reduce 870,000 tCO₂ by 2030 (see Annex XIII – Status of SECAPs/SEAPs in BiH). Energy efficiency and renewable energy improvements in public buildings count for the largest portion of this commitment. The project will support municipalities to prepare and/or upgrade their SECAPs/SEAPs, including preparation of the Baseline Emission Inventory to track mitigation actions in the public sector, as well as to identify and prioritize mitigations actions for investment support. It will also provide assistance to integrate *gender dimensions* into the scope of SECAP, specifically to identify and prioritize local climate actions, which can deliver strong benefits to women and/or promote gender equity. Municipalities with approved SEAPs/SECAPs will have priority to receive Financial Assistance under output 2 of the project.
 - b. *Activity 1.1.2 Energy Management: at building, municipality and entity-levels.* Having in place a robust system of energy management is essential for unlocking and sustaining investment in building retrofits; energy management is also an integral part of Measurement, Reporting and Verification (MRV) for building sector energy use and GHG emissions. The following interventions will be supported:
 - i. EMIS implementation: EMIS plays a critical role in this project as a source of *building-level* baseline data, as well as a practical monitoring tool to track and monitor the impact of EE-RE measures in terms of energy/cost saving, improvement in comfort and other benefits to buildings’ managers, occupants and visitors. Towards the end of the project, all 5,000 public buildings in BiH will be covered by EMIS (against the current 2,100 buildings), creating a unique precedent and an example to follow for other developing countries. Support to EMIS implementation will cover the installation of EMIS software in public buildings and utilities, selection and training of building energy managers, collection and input of primary data, training and advice on data collection, analysis and aggregation (at municipal/entity level).

⁹ SEAP is the initial format of the local energy plan, which used to cover only energy sector at the local level. The new format entitled SECAP has broader scope: it covers all GHG emitting sectors, as well as measures to improve climate resilience at the local level.

- ii. Building on the results of EMIS application at building-level, the project will support authorities/SME companies on identification, implementation and monitoring of low-carbon investment projects in public sector buildings, as well as assistance (training and guidance) on energy management at national/entity level institutions. Under this activity, assistance will be provided to develop, test and implement appropriate IT solutions to enable the functioning of the Law on Energy Efficiency of RS and FBiH requirements on EE Information Systems. An important aspect of this activity is carrying out energy intensity mapping of buildings and, based on this mapping, supporting municipal and entity-level authorities in identifying and prioritizing buildings for investment using established energy intensity benchmarks and indicators.
- c. *Activity 1.1.3 EE-RE project preparation.* Based on the results of Activity 1.1.1 (SECAPs) and Activity 1.1.2 (Energy Management), buildings will be selected for undertaking detailed technical and economic analysis and project design of integrated low-carbon solutions (EE-RE) and full technical, economic and financial assessment and prioritization of proposed investment. Those solutions will be compatible with requirements of the EU Energy Performance in Buildings Directive (EPBD) to ensure compliance with international best practices and standards. Each project shall contain financial analysis of the proposed measures, and, if required, justification to request Financial Assistance under output 2 of the project. Existing detailed energy audits (DEAs) conducted by the on-going UNDP (90) and WB (50) projects will be used for investment decision-making (in accordance with the Operational Guidance under Activity 1.2.1.). Recommendations from some of the DEAs (most attractive EE-RE packages) have been or are being implemented in the meantime. However, as noted in the background section, many of the projects are not sufficiently bankable to meet existing requirements, hence additional investment support is justified.
- d. *Activity 1.1.4 EE-RE project oversight.* The project will provide the full range of required support activities to building end-users to ensure quality and timely implementation of selected EE-RE retrofit projects in buildings, including preparation and organization of tenders, and work supervision until the commissioning of the building. This will also include legal and financial assistance to municipalities to identify appropriate financing and implementation structures for projects, including assistance with organizing and procuring the services of ESCOs under an EPC modality for projects with quick pay-back and high financial returns. Recognizing that ESCO market is at very nascent stage in BiH and therefore the classical model cannot yet be considered as a viable solution for BiH, the project proposes a hybrid solution which incorporates elements of EPC contracting and creates initial market opportunities for ESCOs to deliver their services according to EPC-based model. Once preconditions are established and ESCO companies gain some experience and track record with EPC projects, including data and information on their profitability, alternative solutions to help raise private capital will be considered (see Activity 1.2.3). This activity will be implemented in conjunction with parallel work at entity level on development of the ESCO-supportive regulatory framework (See Activity 1.1.8).
- e. *Activity 1.1.5 Training and Capacity Building.* To complement Activities 1.1.1-1.1.4, the project will deliver a series of training and capacity building activities targeting municipal, entity-, and state-level stakeholders, as well as potential ESCO companies to educate them about energy management, project development, implementation and monitoring. In doing so, the project will seek to ensure that at least 30% of beneficiaries of the trainings will be women.
- f. *Activity 1.1.6 Awareness-raising among building end-users.* Rational behavior of building users is essential to achieve and sustain energy-saving impacts over the EE-RE investment lifetimes. Therefore, the project will conduct an awareness-raising campaign, targeting various users and occupants of

public buildings, including school children, with the purpose of informing and engaging them in energy-saving measures and promoting more rational behavior with regard to energy use. Women are expected to be the largest group of beneficiaries and participants in the awareness-raising campaign: based on EMIS data, on average, women constitute 52% (in some building-types, much higher) share of public buildings' users.

- g. Activity 1.1.7 Designing National Framework for Low-carbon Investment in Public Buildings. In order to address identified policy and regulatory barriers at entity/state level, the project will provide technical assistance to support the development and facilitate the adoption of a transformational and harmonized (among entities and state-level) policy, regulatory and financing framework for investment in low-carbon public buildings, including provisions enabling:
- Implementation of EPC contracts in the public sector to open up market opportunities for private investment;
 - Enforcement of requirements of the Law on Energy Efficiency regarding the use of IT systems for public energy management to ensure sustainability of EMIS, as well as to enabling the functioning of the Law on Energy Efficiency requirements regarding EE Information Systems;
 - Implementation of a harmonized approach to public financing and support mechanisms for low-carbon investment in the public sector;
 - Harmonized and coordinated implementation of the BiH's Investment Framework and Programme for Low-Carbon public buildings.
29. **Output 1.2: Addressing financial barriers to low-carbon investment in buildings and infrastructure ("Financial de-risking and Investment support")**. Output 1.2 will support implementation of the National Framework for Low-Carbon Investment in Public Buildings to address identified financial barriers and to establish a blueprint for a more effective, better coordinated and harmonized approach to allocation of public funding to stimulate investment in low-carbon buildings. Under the Framework, all public buildings (regardless of jurisdiction) will be able to receive technical assistance for EE-RE project preparation (to be provided under Output 1.1).

Table 5 Minimum requirements for buildings participating in the National Investment Framework for Low-Carbon Buildings

Technical	<ul style="list-style-type: none"> • Building should have a remaining lifespan of at least 20 years • Availability of data on building energy use for at least 2 consecutive years • Achievement of a minimum level of energy performance (as per the EU's EPBD technical requirements for EE retrofits) • Mandatory implementation of fuel-switch (RE supply) measures
Financial	<ul style="list-style-type: none"> • Simple pay-back: 8 years or higher • Meeting minimum co-financing requirements, including secured co-financing for non-EE related measures
Socio-economic	<ul style="list-style-type: none"> • Project ensures compliance with minimum occupancy standards in building • Project contributes to increased local employment and skills building

- Number of women beneficiaries: at least 50%
 - Evidence of stakeholder consultations and support
 - Environmental
 - Low environmental risk rating, as per UNDP SESP policy
 - Minimum 20% reduction in GHG emissions compared to baseline

30. Activity 1.2.1 *Implementing National Framework for Low-Carbon Investment in Public Buildings*. The project will support implementation of low-carbon building retrofits in 430 public buildings via a combination of TA assistance for project identification and oversight (under Output 1) and investment support to co-finance EE and RE measures (under Output 1.2). GCF funds will be used to co-finance low-carbon retrofits in buildings meeting minimum technical, socio-economic, financial and environmental requirements, which would not be able to receive financing under the baseline condition (or could not be financed in full – in particular, measures involving coal to biomass fuel switch – see Financial Analysis in Annex III).

31. Projects will be identified based on analysis of building energy use data (collected via EMIS and detailed economic and technical assessment conducted under Activity 1.1.3). Respective RPs (depending on the jurisdiction of building end-user) will conduct project assessment in line with the Operational Guidance (including calculation of the amount of the GCF-funded component per project and securing and confirming the required co-financing) and will prepare detailed project specifications and undertake procurement of EE-RE works and services for the total amount of works. All payments to contractors by RPs will be made after completion and certification of works (see Activity 1.1.4). The project allocates US\$ 9.54 m to co-finance EE-RE measures in up to 430 public buildings: i.e. up to US\$ 33,000 per building or 20% on average.

a. *Activity 1.2.2 Design and monitoring of the National Framework for Low-Carbon Investment in Public Buildings*. During its inception phase, the project will support the preparation of the Operational Guidance for the National Framework, which will detail the process and procedures for allocation of public funds for low-carbon measures in public buildings, as well as other required regulatory documents to operationalize the Framework, including provision of capacity building to all Responsible Parties (RPs) involved in its implementation. Operational Guidance will have to be approved by all participating RPs and the Project Board. In parallel, under the GEF-funded project¹⁰, technical assistance will be provided to finalize the design of the ESCO-related component of the Framework and support its implementation on a pilot basis, which, in turn, will also inform the design of the National Framework. Starting from Year 2 and until the end of the project, under this Activity support (TA) will be provided to all RPs to assist them with the implementation of the National Framework: i.e. project appraisal, procurement, monitoring and reporting, with a particular focus on strengthening RPs' capacities to work with different financial instruments and identify the most appropriate financing package for low-carbon building retrofits.

b. *Activity 1.2.3 Evaluation, lessons learnt analysis, designing follow-up financing scheme, knowledge-sharing*: The key objective of the project is to jump-start the energy service market in BiH's public sector by providing nascent ESCO companies with seed capital and opportunities to implement their first EPC contracts. Implementation of Output 1.2 will generate practical information and data on the profitability of low-carbon investment in public buildings and the feasibility of proposed models. Once

¹⁰ GEF grant has been approved by GEF Council in June 2016, expected start – QR 1 2017

the initial preconditions for ESCO work are established, experience with EPC gained and evaluation conducted, the project will explore alternative options to help ESCOs raise finance at adequate terms, such as by supporting the design of a dedicated, catalytic EE vehicle for third-party investors to ESCO companies or the issuance of municipal/entity-level green/EE bonds.

32. In view of the project's innovative nature and in order to support knowledge exchange and collective learning processes, the project will make provisions for systematic documentation, analysis and extracting lessons learnt from its implementation, as well as related activities to present and disseminate this knowledge in BiH, regionally and globally. Towards the end of the project, a publication highlighting its results and lessons learnt will be prepared and published.

Expected Results:

33. The project will contribute to the creation of knowledge and collective learning processes, as follows:
- Under Output 1.1, Activity 1.1.5, training will be provided to various public building sector stakeholders, municipal energy managers and ESCO companies, as well as entity- and state-level authorities in the area of energy management, EE-RE project design and implementation. The end-of-project target is to provide such training and learning opportunities to at least 2,500 people, including at least 30% women;
 - Under Output 1.2, Activity 1.2.3 includes systematic documentation, analysis and extraction of lessons learnt from project implementation, as well as related activities to present and disseminate this knowledge both in BiH and globally. The project will also make provision for a lessons learnt publication highlighting the achievements of the project and documenting lessons learnt;
 - In addition, UNDP's M&E reporting includes lessons learnt as a specific section of evaluation reports. As there will be two interim reports and one final evaluation report, the lessons learned will be included therein and disseminated globally on the UNDP Evaluation Resource Centre (ERC) website.¹¹

Partnerships:

34. UNDP has implemented the GEF-financed **Biomass Energy for Employment and Energy Security Project** (2009-2015, US\$ 1.2 million), which tackled barriers to the widespread and market-based growth of modern biomass energy through the implementation of biomass fuel-switch pilot projects in primary schools and public utility buildings of the Srebrenica region, education and awareness raising as well as promotion and marketing support for the biomass energy sector. The project has played a significant role in jump-starting the biomass market in the country by stimulating biomass pellet/briquette consumption and demonstrating the benefits of fuel switching. The Terminal Evaluation Report of the project is presented in Annex VIII. .
35. The **EU Floods Recovery Programme** (2014-2016, EUR 43.520 million) assisted BiH in recovering from the severe floods that affected large parts of the country in May 2014. The programme consists of different components all of which aim to assist with the normalization of peoples' lives in flood-affected areas and communities in 24 of the most-affected municipalities. The activities focused on the immediate restoration of vital public-sector infrastructure and the reinstatement of key public services, the revitalization of the local economy and agriculture production and the rehabilitation of communal infrastructure in selected municipalities. The programme reconstructed heating systems in schools,

¹¹ See, for example, <http://erc.undp.org/evaluationadmin/manageevaluation/viewevaluationdetail.html?evalid=6610>.

healthcare centers and municipal buildings, including biomass fuel-switch projects based on the “Build Back Better” principle. The project was financed by the European Union (EUR 42.24 million) and UNDP (EUR 1.28 million).

36. The UNDP project, “**Climate Change Facility for BiH Cities**” (2009-2013, US\$ 342,500) aimed at reducing energy consumption in public buildings, piloted the introduction of the Energy Management Information System (EMIS) in BiH cities, and implemented pilot EE-RE projects in buildings. This piloting work continues in a systematic manner under the ongoing UNDP Green Economy Development Project (see below). The EMIS is currently implemented in 2,100 public sector buildings and more than 2,500 end-users (municipal and cantonal level, etc.) have received EMIS training.
37. In addition, under UNDP’s **MDG-F Environment and Climate Change Programme**, between 2009-13 38 energy efficiency pilot projects were implemented across the country, leading to an investment of US\$ 4.2 million, total energy savings of US\$ 700,000 per year and total emission reductions of 2,200 tCO₂ annually. The project entailed implementation of energy conservation and renewable energy measures in public buildings; fuel-switch projects; automated energy consumption regulation and management of public sector buildings; implementation of energy efficient public lighting; and educational activities.
38. Through its “**Green Economic Development (GED)**” project (2013-2018, US\$ 11.2 million), UNDP continues to roll-out EMIS throughout the country, aiming at sub-national/cantonal public sector buildings (educational, healthcare and administrative institutions). A key aspect of the project is the institutionalization of energy management activities within public sector buildings, notably through the preparation of detailed energy audits and by enabling building managers to monitor energy consumption through EMIS. Another key aspect is the implementation of energy efficiency projects, including biomass fuel-switch projects. The project is financed by the Swedish International Development Cooperation Agency (SIDA), UNDP and various levels of government in Bosnia and Herzegovina. Under the GED project, UNDP has conducted extensive technical and economic analysis of EE-RE retrofit projects at the level of individual buildings, as well as aggregated analysis at municipal and cantonal (in FBiH) levels (see Annex II), which underpins this funding proposal.
39. UNDP is currently preparing a US\$ 2.3 million project to be funded by the Global Environment Facility (GEF), “**Catalyzing Environmental Finance for Low-Carbon Urban Development**”, with the objective of leveraging investment for a transformational shift towards low-carbon urban development in BiH and promoting safer, cleaner cities and reducing GHG emissions. The project was approved by the GEF Council in June 2016 and its implementation is expected to start in 2017. The project will support Environmental Funds (EFs) with the development of alternative programming strategies, including specifically the modalities for ESCO engagement in EE-RE projects in public building, which the proposed GCF project will scale-up nation-wide.
40. UNDP is also implementing a Biomass Follow-Up Project, building on the completed project mentioned earlier, “**Biomass Energy for Employment and Energy Security – Follow Up Project**” (US\$ 1 million, UNDP and the Czech Development Agency).
41. Finally, UNDP supported the Government of BiH in developing its First and Second National Communications to UNFCCC, the First Biennial Update Report, as well as the Climate Change Adaptation and Low-Emission Development Strategy. UNDP has strong in-house expertise in the area

of GHG inventory, analysis and monitoring, as well as competent team of sectoral experts in the field of energy efficiency, biomass energy, environmental and climate finance.

Risks and Assumptions:

42. **Summary of risks:** Technical risks include risks related to the lack of knowledge and skills necessary to identify, finance and implement EE-RE projects in public buildings. Financial and operational risks include those related to the low credit-worthiness of municipal authorities and low uptake of non-grant financial mechanisms by the public and private sectors, as well as the low financial viability of EE-RE investment in specific circumstances (buildings with coal as baseline fuel and buildings with sub-optimal comfort conditions). Legal and regulatory risks refer to BiH's fragmented administrative structure and complex governance framework, which poses additional barriers to effective energy management in public sector and the creation of enabling framework for private investors. The environmental and social safeguard risks are minor and will be comprehensively addressed by the standard UNDP social and environmental screening procedure.

Further list of risks is given in Annex L.

Stakeholder engagement plan:

43. Proposed implementation arrangements have been made in view and taking the following factors in the account:
- Complex administrative structure of BiH, which is most probably the world's most complicated system of government; even the Presidency of BiH consists of three members.
 - Complex institutional structure in the public building sector whereby buildings fall under hundreds of different jurisdictions (as shown in Table 1);
 - Complex policy and financing framework for public buildings;
 - Ambitious project objectives, which include implementation of large-scale investment programme for public buildings EE retrofits along with policy reforms essential for market transformation.
44. Further, the proposed implementation structure is also a result of extensive stakeholder consultations held at project development stage: at the Concept Note stage only two RPs were envisaged, but subsequent consultations revealed the need to expand the structure, as currently proposed. It was simply not possible to identify one RP in each entity, which would have sufficient mandate and capacity to deliver on the envisaged scope of policy and investment support on its own, let alone there is no such entity in BiH with sufficient capacities and power of authority to ensure effective dialogue, coordination and synchronization of tasks between the two entities – the primarily rationale for chosen UNDP as the lead Implementing partner and DIM as the implementation modality.

A more detailed stakeholder engagement plan is provided in Annex J.

Type of Stakeholder	Name of Stakeholder	Relevance to Project, Role in Preparation, and Role in Implementation
Government	Ministry of Foreign Trade and Economic Relations of BiH (MoFTER)	Directly responsible for BiH's participation in UNDP-assisted projects. Taking part in decision making on approval of annual budget and workplans under each Output, triggering project evaluation and approval of reports for submission to GCF
	Ministry of Physical Planning of the Federation of Bosnia and Herzegovina (MPP FBiH)	Responsible for implementing, procuring, evaluation and contracting Activities 1.1.1, 1.1.3-1.1.7, as well as 1.2.1-1.2.2 in FBiH. A GCF Project Implementation Unit will be formed within the Ministry, consisting of the Ministry's staff delegated to provide assistance to GCF project activities, and one GCF Project Assistant appointed through the project.
	Ministry of Spatial Planning, Construction and Ecology of the Republika Srpska(MSPCE)	National UNFCCC Focal Point, as well as the National Designated Authority for the GCF. Responsible Party for implementing, procuring, evaluation and contracting Activities 1.1.1, 1.1.3-1.1.7, as well as 1.2.1-1.2.2 in RS. A GCF Project Implementation Unit will be formed within the Ministry consisting of the Ministry's staff delegated to provide assistance to GCF project activities, and one GCF Project Assistant appointed through the project.
	FBiH Environmental Protection Fund	Responsible Party to implement Activities 1.2.1 and 1.2.2 in FBiH. A GCF Project Implementation Unit will be formed within the Fund consisting of Fund's staff delegated to provide assistance to GCF project activities, and one GCF Project Assistant appointed through the project.
	Fund for Environmental Protection and Energy Efficiency of RS	Responsible Party to implement Activities 1.2.1 and 1.2.2 of the project in RS. A GCF Project Implementation Unit will be formed within the Fund consisting of the Fund's staff delegated to provide assistance to GCF project activities, and one GCF Project Assistant appointed through the project.

Gender equality and empowering women:

The project will promote women's participation in capacity building and awareness-raising through dedicated focus on gender-specific initiatives. It will provide market education and awareness to the public but especially to women about the positive effects on children's health and safety of the retrofitted schools and hospitals, and will seek to engage with NGOs, including women organizations, to become agents of change and promote the positive results of the energy efficiency measures in

terms of environmental, social and economic benefits. A summary of the project’s quantified sustainable development (SD) impacts is presented in Table 6.

Table 6 Quantified sustainable development benefits

Number of low-carbon public buildings	# of buildings	430
Share of low-carbon public buildings in total public building stock	%	9
Direct beneficiaries	# of people	150 000
# of women beneficiaries	# of women	80 000
Share of beneficiaries relative to total population	%	4%
Number of full-time equivalent (FTE) jobs created	FTE	5,630

45. The project will promote women’s participation in capacity building and awareness-raising through dedicated focus on gender-specific initiatives. It will provide market education and awareness to the public but especially to women about the positive effects on children’s health and safety of the retrofitted schools and hospitals, and will seek to engage with NGOs, including women organizations, to become agents of change and promote the positive results of the energy efficiency measures in terms of environmental, social and economic benefits.
46. Further gender analysis and action plan can be found in Annex J.

South-South and Triangular Cooperation (SSTrC)

47. 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.
48. Already the project has benefited from SSTrC as the project will replicate the EMIS that was developed by the UNDP-GEF Energy Efficiency Project in Croatia (‘Removing Barriers to Improving Energy Efficiency of the Residential and Service Sectors’). That project (2004-2011) monitored, analyzed and reported on the energy and water consumption in public buildings and reached nearly all of the public buildings in Croatia.
49. The project will ensure outreach to other relevant UNDP-GCF and UNDP-GEF projects, including those under implementation in Armenia (2017-2022) and Serbia (2014-2020). The UNDP-GEF EMIS project in Serbia has already benefited from the Croatia experience, and supports further upgrade and improvement of the EMIS.

50. The project will facilitate exchange of experience and lessons learned from EMIS use among municipalities in BiH and, more broadly, in the Western Balkan region. Through the Energy Efficiency Donor Coordination in BiH, the project will cooperate with donors and agencies in the field of energy efficiency.

Sustainability and Scaling Up:

51. Sustainability and scaling-up principles are embedded in the project design, which is focused on comprehensive removal of the prevailing financial and non-financing barriers to investment in low-carbon public buildings.
52. As far as non-financing barriers are concerned, the project sustainability will be ensured by building the capacities of relevant partners at local and Entity level to identify, prepare and implement EE-RE retrofits of public buildings, as well as supporting the preparation of Sustainable Energy and Climate Action Plans (SECAPs) and associated local EE-RE targets. Municipalities will be further supported to collect data on, and monitor, building stock energy intensity through scaling-up and institutionalizing the Energy Management Information System (EMIS), which currently covers fewer than half of BiH public buildings, so that public finances will be used towards more targeted and sustainable investments.
53. With regard to financial barriers, the project's strategy is two-fold. First, it will work with existing BiH institutions to help them make their programming and decision-making regarding allocation of public finance more effective and to adopt a new financing framework whereby the level of concessionality is determined by financial viability of the project and its socio-economic benefits, instead of the current financing paradigm whereby grants are being allocated to the most financially attractive projects.
54. In parallel, the market creation approach, whereby the private sector (ESCOs) will be gradually involved in financing and implementation of low-carbon investment, will help to gradually build the confidence of market players, thus reducing risks and the level of investment support required to make project viable. The technical assistance element of the project will focus on regulatory and legal reform and training of ESCOs to help make the ESCO market function properly in BiH.
55. The barrier related to ESCOs' access to affordable finance will likely remain, if only in weakened form, even after GCF intervention: to help address it once the initial preconditions for ESCO work in the public sector are established and experience with EPC gained, the project will explore various alternative options, such as designing catalytic vehicles with dedicated energy efficiency capital flowing from third-party investors to ESCO companies or municipal green/EE bonds.

IV. PROJECT MANAGEMENT

Cost efficiency and effectiveness:

56. The GCF cost per tonne of direct CO₂ reduction the project will generate is estimated at US\$ 9. This is considerably lower than the social cost of carbon estimated by the US Environmental Protection Agency¹². Additionally, significant indirect emissions are expected – between 7,1 and 8,1 million tonnes of CO₂ reduction due to the project interventions– yielding a total estimated cost per tonne of CO₂ reduced to GCF US \$1.8. Based on these calculations, the project is considered very cost-effective.
57. Output 1 will provide technical assistance for the removal of non-financial barriers to investment; it is structured to be a capacity building component; consequently, financial and economic analysis is not considered pertinent for this Component. Output 1.2 (financial de-risking) has revenue-generation aspects but is not driven by a commercial logic: the GCF support to low-carbon public buildings is designed to ensure that projects which otherwise cannot reach financial close are implemented.
58. Further, it is important to bear in mind that the GCF grants will be augmented by considerable co-finance provided by project partners, building end-users, GEF, SIDA, and the entities. Therefore, the project is proposing a package for investors consisting of a mix of grants, loans and end-users' own resources, with GCF grant resources contributing on average around 20% of the total investment costs for EE-RE measures. This mixture will enable the project to mobilize more resources, over and above GCF funding, and hence scale-up the project to bring about the transformational change to the public building sector being sought by the GCF.

Economic and financial rate of return: Project-facilitated investments will have different IRRs, financial and economic, depending on a number of parameters, in particular the type of baseline fuel and baseline occupancy condition in the building. Table 7 illustrates how the IRR of a typical EE-RE project in a public building changes with different level of investment support. In particular, it demonstrates that low-carbon investment in a building with a coal-based heating system in the baseline is not viable, even with concessional terms of finance (the financial IRR ranges between 0% and 4). However, the economic IRR of such projects is much higher due to the high GHG emission reduction effect of fossil-fuel switch measures from coal to RE; this additional stream of economic benefits is not currently being factored into the financial analysis. As such, the provision of grant would allow realization of such projects and associated socio-economic and significant environmental benefits in the form of GHG emission reduction.

Table 7 Financial and Economic IRR of EE-RE Projects in Public Buildings

	Adequate occupancy conditions		20% Under-heating	
	Financial IRR	Economic IRR	Financial IRR	Economic IRR
Without grant	4%	11%	0%	8%
With 30% grant	8%	18%	3%	14%
With 60% grant	16%	32%	10%	26%

¹² Mid-range estimate is US\$ 55: <https://www.epa.gov/climatechange/social-cost-carbon>

59. The total cost of the proposed initiative is estimated at USD 122.564 million by 2023. The GCF input of USD 17.346 million will cover 14% of the total financial requirements and will leverage an additional US\$ 105.22 million of co-finance from a range of sources, such as the Environmental Funds, entity and municipal budgets, and international organizations (UNDP, GEF, IFIs, SIDA).
60. The project involves a combination of investment (equity, debt and grant finance) and technical assistance. For technical assistance (Output 1.1, the Project Management and TA element of Output 1.2), the requested GCF funding is US\$ 6.33 million to address non-financial barriers to low-carbon buildings. This will be complemented by in-kind co-financing from Responsible Parties, as well as co-finance from UNDP of US\$ 1 million (grant) and the GEF of US\$ 1 million (grant).
61. For investment support (Output 1.2), GCF financing in the amount of US\$ 10.044 million is being requested to support implementation of the Investment Framework for Low-Carbon Public Buildings. This will be complemented by US\$ 101 million in co-financing from end-users and from the Responsible Parties, including a new IFI loan (a World Bank second-phase loan under negotiation with the governments). See the overview of project financing structure in Annex XII.
62. The project has the potential to additional co-financing from the private sector, but specific commitments cannot be confirmed at this time, as the projects will be supported on a first-come, first-served basis subject to them meeting defined eligibility criteria.
63. Detailed financial and economic analyses have been conducted for Output 2, financial model which underpins this analysis is presented in the Annex III. Financial Internal Rate of Return (FIRR) and Economic Internal Rate of Return (EIRR) values, as well as NPV and payback have been computed for output 2; inputs, assumptions and methodologies of these calculations are described in section F.1 “Financial and economic analysis”.
64. EIRR and FIRR of the project are given in Table 8. The GCF funds increase the financial IRR from 5% to 10% and the economic IRR – from 11% up to 20% for the project as a whole. The effect on the IRR for different buildings is proportional to the grant amount, with the impact being greatest for low-carbon retrofits in coal-heated buildings (FIRR increases from 0% up to 10%). Investment in coal-heated buildings in the baseline are not viable at all (FIRR = 0%). For the buildings heated with LFO, the baseline FIRR is much higher (9%) and for the most part can be financed with concessional finance alone; GCF assistance in case of LFO-heated buildings is required to remove primarily non-financial barriers (with aide of TA under output 1.1); in case when grant will still be required to make a LFO-heated building viable (estimated at about 5-10%) – the required amount of subsidy will be covered by co-financing.

Table 8 Economic and Financial Internal Rate of Return (IRR)

Key performance indicator	Without grant	With grant
All project		
Economic IRR	11%	20%
Financial IRR	5%	10%
Coal		
Economic IRR	8%	26%
Financial IRR	0%	10%
LFO		

Economic IRR	14%	15%
Financial IRR	9%	11%

Project management:

65. UNDP with Direct Implementation Modality will assume full responsibility and accountability for the overall project management, including monitoring and evaluation of project interventions, achieving of project output and specified results, the efficient and effective use of resources, and reporting to GCF.
66. UNDP will use Responsible Partners for the implementation of project outputs and activities. The Responsible Partners will be accountable to UNDP and their engagement and status of responsible partners is conditioned by the proof of adequate administrative and financial management capacities and adequate performance regularly risk-based monitored and assured (risk based management approach) in line with policy on Harmonized Approach to Cash Transfer (HACT) to implementing partners. Aside from the requirement of HACT policy related to assurance activities, CO BiH applies very engaged support to Responsible Partners under DIM modality which entails regular quarterly monitoring and verification of all the activities/actions/financial reports, as well as knowledge sharing and training of staff within Responsible partner’s institutions.
67. “UNDP provides a three – tier oversight and quality assurance role involving UNDP staff in Country Offices and at regional and headquarters levels. 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. “The ‘senior supplier’ 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). The senior supplier’s primary function within the Board is to provide guidance regarding the technical feasibility of the project.
68. The UNDP Country Office will receive the GCF funds from UNDP Head Office on the basis of approved Annual Work Plans. When payments are to be effected by UNDP, the treasury and cashier functions will be performed by the UNDP BiH Country Office Finance Unit. At the level of each participating organisation (Responsible Party), in order to receive the funds advanced by UNDP, the Responsible Parties for the project will be required to open separate bank accounts to be used only for receiving UNDP advances and to make payments relating to their respective project output. The Project Manager, as well as UNDP CO Senior Manager will approve requests for cash advances on a quarterly basis. The cash advances requests would need to be substantiated with proofs of liquidity requirement. Once in the account of the Responsible Parties, the latter’s treasury systems will be responsible for disbursement in accordance with approved work plans and liquidity needs. The Governments of RS and FBiH have well established treasury functions which operate in compliance with international norms. All expenses to be paid against cash advanced by UNDP must be made in accordance with the procurement and contracting procedures agreed in the project document, and must be related to the

project activities and outputs envisaged in the annual work plan (cost eligibility criteria). The costs eligibility check for all expenses incurred by the Responsible Parties will be done by the project team prior to liquidation of advances in UNDP accounts and recognition/reporting of these expenses.

69. GCF funds will not be used to pay the salaries of Government personnel, whose costs will be fully covered by the relevant Responsible Parties. The Project Directors will be assigned by the Ministries and will be paid by relevant Government bodies as they are full-time senior officers. The Project Manager and other members of the Project Management team will be paid using GCF funds.
70. 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 in accordance with relevant policies notably the UNDP Disclosure Policy¹³ and the relevant GCF policy.
71. Disclosure of information: Information will be disclosed in accordance with relevant policies notably the UNDP Disclosure Policy¹⁴ and the GCF Disclosure Policy¹⁵.
72. 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.

¹³ See http://www.undp.org/content/undp/en/home/operations/transparency/information_disclosurepolicy/

¹⁴ See http://www.undp.org/content/undp/en/home/operations/transparency/information_disclosurepolicy/

¹⁵ 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

V. PROJECT RESULTS FRAMEWORK

<p>This project will contribute to the following Sustainable Development Goal (s):</p> <ul style="list-style-type: none"> • SDG7 (Affordable and Clean Energy) • SDG9 (Industry, Innovation and Infrastructure) • SDG11 (Sustainable cities and communities) • SDG17 (Partnerships for the goals) 					
<p>This project will contribute to the following country outcome included in the UNDAF/Country Programme Document:</p> <p>Outcome 05 - By 2019, legal and strategic frameworks enhanced and operationalized to ensure sustainable management of natural, cultural and energy resources</p>					
<p>This project will be linked to the following output of the UNDP Strategic Plan:</p> <p>Output 1.5: Inclusive and sustainable solutions adopted to achieve increased energy efficiency and universal modern energy access (especially off-grid sources of renewable energy).</p>					
<p>GCF Paradigm shift objectives:</p> <p>The Project contributes to shifting BiH to a low-emissions sustainable development pathway in two ways: 1) it improves efficiency of energy use in public buildings by at least 50% and 2) it enables the switch from fossil to renewable (zero-emission) energy sources in public buildings.</p>					
	Objective and Outcome Indicators	Baseline	Mid-term Target	End of Project Target	Assumptions
SDG indicators	7.b.1 Investments in energy efficiency as a proportion of GDP and the amount of foreign direct investment in financial transfer for infrastructure and technology to sustainable development services				Stastical Agencies in BiH have the capacity and regularly conduct monitoring actions
UNDP Strategic Plan Indicators	1. # direct project beneficiaries.	N/a	35,000 people – occupants and users of public buildings, including 18,200 women	150,000 people – occupants and users of public buildings (4% of the total population), including 80,000 women	
FUND LEVEL IMPACT:					
3.0 Reduced emissions from buildings, cities,	Tonnes of carbon dioxide equivalent ₂₀₁₉ (tCO ₂ eq) reduced in public building sector	0	500,000	2,019,976	• Estimation over investment lifetime (20 years)

industries and appliances	Number of people benefitting from improved working/occupancy conditions in buildings (disaggregated by gender)	0	35,000 (18,200 women)	150,000 (80,000 women)	<ul style="list-style-type: none"> • Mid-term is 3 years after project start • The procurement process is efficient and timely • Co-financing realized
		0	1%	4%	
PROJECT OUTCOMES:					
5.0 Strengthened institutional and regulatory systems for low-emission planning and development	<p>M5.1 Number of policies, institutions, coordination mechanisms and regulatory frameworks that improve incentives for low-emission planning and development and their effective implementation</p> <p><i>Note: the project will support update/preparation of the local Sustainable Energy and Climate Action Plans (SECAPs) as a specific policy and regulatory framework for low-emission planning at the local level in BiH</i></p>	14 SEAPs approved by City Councils	34 SECAPs updated/ approved by City Councils	54 SECAPs updated/ approved by City Councils	Local authorities' commitment to adopt and pursue sustainable energy targets remains strong
	Number of gender-sensitive policies, and regulatory frameworks for low-emission planning and development	0	5	20	<p>Local authorities' commitment to adopt and pursue sustainable energy targets remains strong</p> <p>Local authorities recognize and acknowledge the role of women in improving public buildings' energy efficiency</p>
7.0 Lower energy intensity of buildings, cities, industries, and appliances	M7.1(a) tCO ₂ eq emissions reduced due to improvements in public sector building design and energy efficiency	0	500,000	2,019,976	<ul style="list-style-type: none"> • Estimation over investment lifetime (20 years) • Full comfort conditions are assumed in the baseline • Mid-term is 3 years after project start • The procurement process is efficient and timely • Co-financing realized
PROJECT OUTPUTS:					

Component 1 (project)	Share of grant finance in the total investment for low-carbon public buildings	87%	50%	15%	Authorities in both entities remain committed to adopting harmonized and effective policy framework
	Number of jobs created via project-facilitated investment	N/a	1,500	5,630	
Output 1.1 Non-financial barriers to investment in low-carbon public buildings addressed	Number of SECAPs updated/developed and adopted	14	20	40	Local authorities' commitment to adopt and pursue sustainable energy targets remains strong
	Number of public buildings covered by EMIS	2,100	4,000	5,000	Local authorities' commitment to adopt EMIS remains strong
	Number of EE-RES retrofit projects (DEAs) in public buildings identified, prepared and tendered out	90	200	430	The procurement process is efficient and timely
	Number of people trained, including share of women (%)	0	500 (30%)	2,500 (30%)	Local authorities' commitment to implement EE-RE in public buildings remains strong Learning opportunities offered by this project lead to private investment in EE-RES in public buildings
	Number of end-users covered by PR and advocacy campaign, including minimum share of women	0	50,000 (at least 52% women)	150,000 (at least 52% women)	
	Status of BiH EE Investment Framework for low-carbon public sector buildings	No Framework	The Framework is adopted	The Framework adopted and is under implementation in both entities	Authorities in both entities remain committed to adopting harmonized and effective policy framework
Output 1.2 Financial barriers to investment in low-carbon public buildings addressed	Amount of finance leveraged for investment in low-carbon public buildings	0	US\$ 20 mln	US\$ 100 mln	Sufficient uptake of the EE-RES projects among the target market of municipal authorities and ESCOs
	Legal and operational status of the Framework	N/A	Framework legally established	Framework is operational	Minimal staff turn-over at Implementing Partners ensured

				with positive audit statement	Government maintains policy of promoting EE-RE in public sector

VI. MONITORING AND EVALUATION (M&E) PLAN

The project results as outlined in the project results framework will be monitored and reported annually and evaluated periodically during project implementation to ensure the project effectively achieves these results.

Monitoring and Evaluation plans prepared for this project can be found in Annex G.

Project-level monitoring and evaluation will be undertaken in compliance with UNDP requirements as outlined in the [UNDP POPP](#) and [UNDP Evaluation Policy](#). While these UNDP requirements are not outlined in this project document, the UNDP Country Office will work with the relevant project stakeholders to ensure UNDP M&E requirements are met in a timely fashion and to high quality standards. Additional mandatory GCF-specific M&E requirements will be undertaken in accordance with relevant GCF policies.

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 Workshop Report. This will include the exact role of project target groups and other stakeholders in project M&E activities including national/regional institutes assigned to undertake project monitoring.

M&E oversight and monitoring responsibilities:

73. Monitoring and Reporting will be conducted according to UNDP's POPP and the UNDP Evaluation Policy. The UNDP Country Office will work with the relevant project stakeholders to ensure UNDP M&E requirements will be undertaken in accordance with GCF policies.
74. **Project Manager:** The Project Manager is responsible for day-to-day project management and regular monitoring of project results and risks, including social and environmental risks. The Project Manager will ensure that all project staff maintain a high level of transparency, responsibility and accountability in M&E and reporting of project results. The Project Manager will inform the Project Board, the UNDP Country Office and the UNDP Regional Technical Advisor of any delays or difficulties as they arise during implementation so that appropriate support and corrective measures can be adopted.
75. The Project Manager will develop annual work plans to support the efficient implementation of the project. The Project Manager will ensure that the standard UNDP and GCF M&E requirements are fulfilled to the highest quality. This includes, but is not limited to, ensuring the results framework indicators are monitored annually in time for evidence-based reporting in the Annual Project Report (APR), and that the monitoring of risks and the various plans/strategies developed to support project implementation (e.g. environmental and social management plan, gender action plan, etc.) occur on a regular basis.
76. **Project Board:** The Project Board will take corrective action as needed to ensure the project achieves the desired results. The Project Board will hold project reviews to assess the performance of the project and appraise the Annual Work Plan for the following year. In the project's final year, the Project Board will hold an end-of-project review to capture lessons learned and discuss opportunities for scaling-up and to highlight project results and lessons learnt with relevant audiences. This final review meeting will also discuss the findings outlined in the project Final Independent Evaluation report and the management response.

77. **Project Responsible Parties:** The Responsible Parties are responsible for providing all required information and data necessary for timely, comprehensive and evidence-based project reporting, including results and financial data, as necessary and appropriate. The Responsible Parties will strive to ensure project-level M&E is undertaken by national institutions and is aligned with national systems so that the data used by and generated by the project supports national systems.
78. **Project Implementing Partner:** The Implementing Partner is responsible for providing all required information and data necessary for timely, comprehensive and evidence-based project reporting, including results and financial data, as necessary and appropriate. 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 by and generated by the project supports national systems.
79. **UNDP Country Office:** The UNDP Country Office will support the Project Manager as needed, including through annual supervision missions. The annual supervision missions will take place according to the schedule outlined in the annual work plan. Supervision mission reports will be circulated to the project team and Project Board within one month of the mission. The UNDP Country Office will initiate and organize key M&E activities including the Annual Project Report, the Interim Independent Evaluation and the Final Independent Evaluation. The UNDP Country Office will also ensure that the standard UNDP and GCF M&E requirements are fulfilled to the highest quality.
80. The UNDP Country Office is responsible for complying with all UNDP project-level M&E requirements as outlined in the [UNDP POPP](#). This includes ensuring the UNDP Quality Assurance Assessment during implementation is undertaken every two years; the regular updating of the ATLAS risk log; and, the updating of the UNDP gender marker on an annual basis based on gender mainstreaming progress reported in the APR and the UNDP ROAR. Any quality concerns flagged during these M&E activities (e.g. annual APR quality assessment ratings) must be addressed by the UNDP Country Office and the Project Manager.
81. The UNDP Country Office will support GCF staff (or their designates) during any missions undertaken in the country, and support any ad-hoc checks or ex post evaluations that may be required by the GCF. The UNDP Country Office will retain all project records for this project for up to seven years after project financial closure in order to support any ex-post reviews and evaluations undertaken by the UNDP Independent Evaluation Office (IEO) and/or the GCF.
82. **UNDP-Global Environmental Finance Unit (UNDP-GEF):** Additional M&E and implementation oversight, quality assurance and troubleshooting support will be provided by the UNDP-GEF Regional Technical Advisor and the UNDP-GEF Directorate as needed.
83. **Audit:** The project will be audited according to UNDP Financial Regulations and Rules and applicable audit policies and the related arrangements agreed to in the Accreditation Master Agreement. Upon request, project audit reports (s) will be shared with the GCF (the donor).

Additional GCF monitoring and reporting requirements:

84. **Inception Workshop and Report:** A project inception workshop will be held within four months after the project document has been signed by all relevant parties to, amongst others:
- Re-orient project stakeholders to the project strategy and discuss any changes in the overall context that influence project strategy and implementation;

- Discuss the roles and responsibilities of the project team, including reporting and communication lines and conflict resolution mechanisms;
- Review the results framework and finalize the indicators, means of verification and monitoring plan;
- Discuss reporting, monitoring and evaluation roles and responsibilities and finalize the M&E budget; identify national/regional institutions to be involved in project-level M&E;
- Identify how project M&E can support national monitoring of SDG indicators as relevant;
- Update and review responsibilities for monitoring the various project plans and strategies, including the risk log; Environmental and Social Management Plan and other safeguard requirements; the gender action plan; and other relevant strategies;
- Review financial reporting procedures and mandatory requirements, and agree on the arrangements for the annual audit; and
- Plan and schedule Project Board meetings and finalize the first year annual work plan.

The Project Manager will prepare the inception workshop report no later than one month after the inception workshop. The inception workshop report will be cleared by the UNDP Country Office and the UNDP-GEF Regional Technical Advisor, and will be approved by the Project Board.

The inception report must be submitted to the GCF within six months of project start (i.e. project effectiveness). The inception report will be cleared by the UNDP Country Office and the UNDP-GEF Regional Technical Adviser, and approved by the Project Board.

85. UNDP as an accredited entity shall provide to the GCF the following reports prepared in a form and manner compliant with the practices and procedures of the Fund for individual Funded Activities. As per clause 15.02 of the Accreditation Master Agreement this includes the Annual Performance Review (APR), interim or final reports, a self-assessment of compliance in accordance with clause 13.01 of the monitoring and accountability framework and a report of actions carried out or planned to be carried out as well as all such other reports that the AE may prepare or require in accordance with its own rules, policies, and procedures. The payments are to be made based on Procurement Plans aggregating financing request from approved sub-projects. The project will adopt a phased approach to implementation of EE building retrofits. As described earlier, the release of funds to Responsible partners will be conditional upon successful accomplishments and reporting (substantial and financial) on the implementation of the previous phase.
86. **GCF Annual Project Report (APR) (due 1 March each year of project implementation):** The Project Manager, the UNDP Country Office, and the UNDP-GEF Regional Technical Advisor will provide objective input to the annual APR covering the calendar year for each year of project implementation. The Project Manager will ensure that the indicators included in the project results framework are monitored annually in advance of the APR submission deadline so that progress can be reported in the APR. The APR will include reporting of: environmental and social risks and related management plans, gender, co-financing and financial commitments, GCF 'conditions precedent' outlined in the FAA, amongst other issues. The annual project report will be due for submission to the GCF in the first quarter of each year for the duration of the project. The last APR will be due for submission within 3 months after the project completion date.
87. The Annual Project Report submitted to the GCF will also be shared with the Project Board. The UNDP Country Office will coordinate the input of other stakeholders to the report as appropriate. The quality rating of the previous year's report will be used to inform the preparation of the subsequent report.

88. **Lessons learned and knowledge generation:** Results from the project will be disseminated within and beyond the project intervention area through existing information sharing networks and forums. The project will identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to the project. The project will identify, analyze and share lessons learnt that might be beneficial to the design and implementation of similar projects and disseminate these lessons widely. There will be continuous information exchange between this project and other projects of similar focus in the same country, region and globally.
89. **Interim Independent Evaluation Report:** An interim independent evaluation report will be completed within three (3) months of the fourth (4th) year of project implementation (1st quarter of the fourth year, in accordance to the implementation plan, June – August 2022). The findings and responses outlined in the management response will be incorporated as recommendations for enhanced implementation during the final half of the project’s duration.
90. The terms of reference, the evaluation process and the evaluation report will follow the standard templates and guidance prepared by the UNDP IEO, available on the [UNDP Evaluation Resource Centre \(ERC\)](#). As noted in this guidance, the evaluation will be ‘independent, impartial and rigorous’. The consultants that will be hired to undertake the assignment will be independent from organizations that were involved in designing, executing or advising on the project to be evaluated. Other stakeholders will be involved and consulted during the evaluation process. Additional quality assurance support is available from the UNDP-GEF Directorate. The final interim evaluation report will be available in English and will be cleared by the UNDP Country Office and the UNDP-GEF Regional Technical Adviser, and approved by the Project Board.
91. **Final Independent Evaluation Report:** A final independent evaluation report will be completed within six months after the completion date **March – August 2026**. The final independent evaluation will take place upon completion of all major project outputs and activities. The final evaluation process will begin at least three months before operational closure of the project allowing the evaluation mission to proceed while the project team is still in place, yet ensuring the project is close enough to completion for the evaluation team to reach conclusions on key aspects such as project sustainability. The Final Independent Evaluation report is due for submission to the GCF within 6 months after the project completion date.
92. The Project Manager will remain on contract until the final independent evaluation report and management response have been finalized. The terms of reference, the evaluation process and the final independent evaluation report will follow the standard templates and guidance prepared by the UNDP IEO for GCF-financed projects, available on the [UNDP Evaluation Resource Centre](#). As noted in this guidance, the evaluation will be ‘independent, impartial and rigorous’. The consultants that will be hired to undertake the assignment will be independent from organizations that were involved in designing, executing or advising on the project to be evaluated. Additional quality assurance support is available from the UNDP-GEF Directorate. The final independent evaluation report will be cleared by the UNDP Country Office and the UNDP-GEF Regional Technical Adviser, and will be approved by the Project Board. The final independent evaluation report will be publicly available in English on the UNDP ERC.
93. The UNDP Country Office will include the planned project Final Independent Evaluation in the UNDP Country Office evaluation plan, and will upload the Final Independent Evaluation report in English and the corresponding management response to the UNDP Evaluation Resource Centre (ERC).

94. **Final Report:** The project’s final APR, along with the final independent evaluation report 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 lessons learnt and opportunities for scaling up.
95. The responsibilities of UNDP related to Know Your Customer (KYC), Customer Identification Programme (CIP), Anti-Money Laundering (AML), and Countering the Financing of Terrorism (CFT) are defined in the Accreditation Master Agreement (AMA). In accordance with 4.05 (a) of the AMA, UNDP is required to implement KYC and other similar checks under all laws and regulations as may be applicable. UNDP already has in place proper policies and procedures to deal with these matters.
96. UNDP operates anti-money laundering procedures in accordance with all laws and regulations that may be applicable to itself as an accredited entity. UNDP is also required to operate in a manner which is consistent with the anti-bribery laws of the Host Country and any other laws as may be applicable to the accredited entity. In addition, UNDP operates in such a manner as to carry out all due diligence as necessary of desirable in accordance with its own internal rules and procedures and usual practice when dealing with funds for which it has management or investment responsibility.
97. UNDP will also be responsible to put in place checks and various measures (monitoring missions, spot checks, quarterly progress and annual performance reviews, interim independent evaluation, audits, final evaluations) to ensure that funds are spent appropriately
98. Prior to signature of the Responsible Party legal instrument (Letter of Agreement), all National Responsible implementing Partners need to have undergone a Harmonized Approach to Cash Transfer (HACT) assessment by independent auditors engaged by the UNDP to assess their capacities (financial, managerial, internal control, etc.) to implement the project. HACT helps to ensure that all national implementing partners are appropriately qualified to implement the project and to ensure that funds are not used for illicit purposes but for intended purposes. Under the HACT Framework, quality assurance activities shall comprise of (1) Periodic on-site reviews (spot checks) of the IP’s financial records of cash transfers. These quality assurance activities should be performed by qualified UNDP staff or third-party service providers; (2) Programmatic monitoring of activities supported by cash transfers, which provides evidence regarding the state of programme implementation and use of resources provided by UNDP; and (3) Scheduled and special audits (financial or internal control) of the IP’s financial records and financial management systems of internal controls related to the programme.

Mandatory GCF M&E Requirements and M&E Budget:

GCF M&E requirements	Primary responsibility	Indicative costs to be charged to the Project Budget (US\$)		Time frame
		GCF grant	Co-financing	
Inception Workshop	UNDP Country Office	None	None	Within two months of project document signature
Inception Workshop Report and baseline assessments	Project Manager	None	None	No later than 6 months after the Effective Date
Standard UNDP monitoring and reporting requirements as outlined in the UNDP POPP	UNDP Country Office	None	None	Quarterly, annually

GCF M&E requirements	Primary responsibility	Indicative costs to be charged to the Project Budget (US\$)		Time frame
		GCF grant	Co-financing	
Risk management	Project Manager Country Office	None	None	Quarterly, annually
Monitoring of indicators in project results framework <i>(including hiring of external experts, project surveys, data analysis etc...)</i>	Project Manager	None	None	Annually
GCF Annual Project Report	Project Manager and UNDP Country Office and UNDP-GEF Unit	None	None	Annually as per FAA
DIM Audit as per UNDP audit policies	UNDP Country Office	None	44,000	Annually
Lessons learned, case studies, and knowledge generation	Project Manager	25,000	None	Annually
Monitoring of environmental and social risks, and corresponding management plans as relevant	Project Manager UNDP CO	None	None	On-going
Monitoring of gender action plan	Project Manager UNDP CO	None	None	On-going
Monitoring of stakeholder engagement plan	Project Manager UNDP CO	None	None	On-going
Addressing environmental and social grievances	Project Manager UNDP Country Office BPPS as needed	None	None	Costs associated with missions, workshops, BPPS expertise etc can be charged to the project budget
Project Board meetings	Project Board UNDP Country Office Project Manager	None	16,000	At minimum annually
Supervision missions	UNDP Country Office	None	None	Two per year
Oversight missions	UNDP-GEF team	None	None	Troubleshooting as needed
GCF learning missions/site visits	UNDP Country Office and Project Manager and UNDP-GEF team	None	None	To be determined.

GCF M&E requirements	Primary responsibility	Indicative costs to be charged to the Project Budget (US\$)		Time frame
		GCF grant	Co-financing	
Interim independent evaluation and management response	UNDP Country Office and Project team and UNDP-GEF team	None	USD: 10,000 in kind	Within three months after Year 4 of project implementation
Final Independent Evaluation and management response	UNDP Country Office and Project team and UNDP-GEF team	None	USD: 10,000 in kind	Within six months after the completion date
Translation of evaluation reports into English	UNDP Country Office	None	None	As required. GCF will only accept reports in English.
TOTAL indicative COST Excluding project team staff time, and UNDP staff and travel expenses		Total: USD 25,000	Total: USD 80,000	

Detailed Monitoring and Evaluation Plan is presented within Annex G.

VII. GOVERNANCE AND MANAGEMENT ARRANGEMENTS

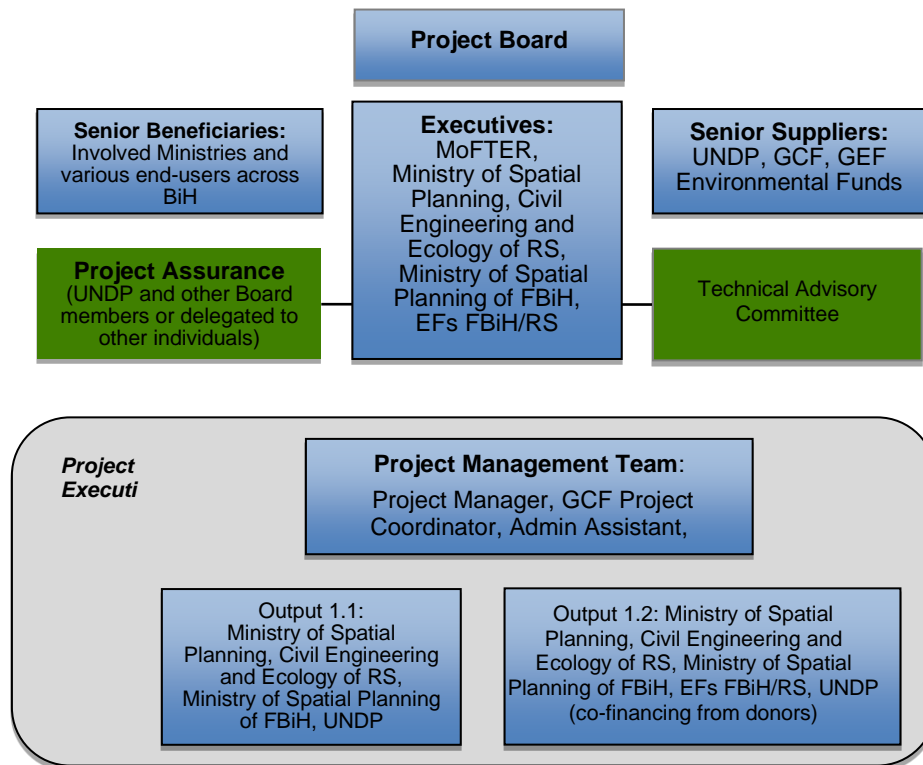
99. **Roles and responsibilities of the project’s governance mechanism:** In view of the above and in line with UNDP POPP, the Direct Implementation Modality (DIM) has been chosen. This would enable the project to a) have central politically neutral Project Management unit responsible for implementation of centralized tasks, such as support to EMIS implementation, knowledge management, nation-wide policy development, design and monitoring of the National Framework for Low-Carbon Investment in Public Buildings, as well as over-all project coordination. This would not be possible under the National Implementation Modality, which would call for set-up of two PMUs in each entity and ultimately be more costly and less effective.

100. The **Implementing Partner** for this project is UNDP Bosnia and Herzegovina. The Implementing Partner is responsible and accountable for managing this project, including the monitoring and evaluation of project interventions, achieving project outcomes, and for the effective use of UNDP resources. The Implementing Partner is responsible for:

- 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

101. **The project organization structure – as outlined in Schedule 3 of the FAA - is as follows:**

Figure 4 Project Implementation Structure



102. Due to above listed arguments, UNDP will use Responsible Partners for the implementation of project outputs and activities. The Responsible Partners will be accountable to UNDP and their engagement and status of responsible partners is conditioned by the proof of adequate administrative and financial management capacities and adequate performance regularly risk-based monitored and assured (risk based management approach) in line with policy on Harmonized Approach to Cash Transfer (HACT) to implementing partners. Aside from the requirement of HACT policy related to assurance activities, CO BIH applies very engaged support to Responsible Partners under DIM modality which entails regular quarterly monitoring and verification of all the activities/actions/financial reports, as well as knowledge sharing and training of staff within Responsible partner's institutions.

103. The **Project Board** is the group responsible for making, by consensus, management decisions for the project when guidance is required by the Project Manager, including recommendation for UNDP approval of project plans and revisions. In order to ensure UNDP's ultimate accountability, Project Board decisions will be made in accordance with standards consistent with UNDP operating policies and procedures and, in particular, standards that shall ensure management for development results, best value for money, fairness, integrity, transparency and effective international competition. In case a consensus cannot be reached within the Board, the final decision shall rest with the UNDP Programme Manager. The Project Board will meet on a semi-annual basis.

Specific responsibilities of the Project Board include:

- Provide overall guidance and direction to the project, ensuring it remains within any specified constraints;
- Address project issues as raised by the project manager;
- Provide guidance on new project risks, and agree on possible countermeasures and management actions to address specific risks;
- Agree on project manager's tolerances as required;
- Review the project progress, and provide direction and recommendations to ensure that the agreed deliverables are produced satisfactorily according to plans;
- Appraise the annual project implementation report, including the quality assessment rating report; make recommendations for the workplan;
- Provide ad hoc direction and advice for exceptional situations when the project manager's tolerances are exceeded; and
- Assess and decide to proceed on project changes through appropriate revisions.

The composition of the Project Board must include the following roles:

104. Executive: The Executive is an individual who represents ownership of the project who will chair the Project Board. This role can be held by a representative from the Government Cooperating Agency or UNDP. The Executive of the project Board is UNDP. The Executive is ultimately responsible for the project, supported by the Senior Beneficiary and Senior Supplier. The Executive's role is to ensure that the project is focused throughout its life cycle on achieving its objectives and delivering outputs that will contribute to higher level outcomes. The executive has to ensure that the project gives value for money, ensuring cost-conscious approach to the project, balancing the demands of beneficiary and supplier.

Specific Responsibilities: (as part of the above responsibilities for the Project Board)

- Ensure that there is a coherent project organization structure and logical set of plans;
- Set tolerances in the AWP and other plans as required for the Project Manager;
- Monitor and control the progress of the project at a strategic level;
- Ensure that risks are being tracked and mitigated as effectively as possible;
- Brief relevant stakeholders about project progress;
- Organize and chair Project Board meetings.

105. Senior Supplier: The Senior Supplier is an individual or group representing the interests of the parties concerned which provide funding and/or technical expertise to the project (designing, developing, facilitating, procuring, implementing). The Senior Supplier's primary function within the Board is to provide guidance regarding the technical feasibility of the project. The Senior Supplier role must have the authority to commit or acquire supplier resources required. If necessary, more than one person may be required for this role. Typically, the implementing partner, UNDP and/or donor(s) would be represented under this role. The Senior Suppliers are: GCF, GEF, UNDP, Environmental Funds of FBIH and RS.

Specific Responsibilities (as part of the above responsibilities for the Project Board)

- Make sure that progress towards the outputs remains consistent from the supplier perspective;
- Promote and maintain focus on the expected project output(s) from the point of view of supplier management;
- Ensure that the supplier resources required for the project are made available;
- Contribute supplier opinions on Project Board decisions on whether to implement recommendations on proposed changes;
- Arbitrate on, and ensure resolution of, any supplier priority or resource conflicts.

106. Senior Beneficiary: The Senior Beneficiary is an individual or group of individuals representing the interests of those who will ultimately benefit from the project. The Senior Beneficiary's primary function within the Board is to ensure the realization of project results from the perspective of project beneficiaries. The Senior Beneficiary role is held by a representative of the government or civil society. The Senior Beneficiaries are: Involved Ministries and end users of Public Sector Buildings

107. The Senior Beneficiary is responsible for validating the needs and for monitoring that the solution will meet those needs within the constraints of the project. The Senior Beneficiary role monitors progress against targets and quality criteria. This role may require more than one person to cover all the beneficiary interests. For the sake of effectiveness, the role should not be split between too many people.

Specific Responsibilities (as part of the above responsibilities for the Project Board)

- Prioritize and contribute beneficiaries' opinions on Project Board decisions on whether to implement recommendations on proposed changes;
- Specification of the Beneficiary's needs is accurate, complete and unambiguous;
- Implementation of activities at all stages is monitored to ensure that they will meet the beneficiary's needs and are progressing towards that target;
- Impact of potential changes is evaluated from the beneficiary point of view;

- Risks to the beneficiaries are frequently monitored.

108. The **Project Manager (PM)** has the authority to run the project on a day-to-day basis on behalf of the Project Board within the constraints laid down by the Board. 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.

109. The Implementing Partner appoints the Project Manager, who should be different from the Implementing Partner's representative in the Project Board.

Specific responsibilities include:

- Provide direction and guidance to project team(s)/ responsible party (ies);
- Liaise with the Project Board to assure the overall direction and integrity of the project;
- Identify and obtain any support and advice required for the management, planning and control of the project;
- Responsible for project administration;
- Plan the activities of the project and monitor progress against the project results framework and the approved annual workplan;
- Mobilize personnel, goods and services, training and micro-capital grants to initiative activities, including drafting terms of reference and work specifications, and overseeing all contractors' work;
- Monitor events as determined in the project monitoring schedule plan/timetable, and update the plan as required;
- Manage requests for the provision of financial resources by UNDP, through advance of funds, direct payments or reimbursement using the fund authorization and certificate of expenditures;
- Monitor financial resources and accounting to ensure the accuracy and reliability of financial reports;
- Be responsible for preparing and submitting financial reports to UNDP on a quarterly basis;
- Manage and monitor the project 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 the annual workplan for the following year; and update the Atlas Project Management module if external access is made available.
- Prepare the Annual Project Report and submit the final report to the Project Board;
- Based on the Annual Project Report and the Project Board review, prepare the AWP for the following year.
- Ensure the interim evaluation process is undertaken as per the UNDP guidance, and submit the interim evaluation report to the Project Board.
- Identify follow-on actions and submit them for consideration to the Project Board;
- Ensure the final evaluation process is undertaken as per the UNDP guidance, and submit the final evaluation report to the Project Board;

110. The Project Manager function will end when the project Final Independent 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. The PM will be a local staff contracted by UNDP. The PM will be supported by **GCF Project Coordinator**, overseeing implementation of activities by Responsible Parties, an **Administrative Assistant**, as well as part-time international **Chief Technical Advisor** (all positions will be contracted by UNDP). In addition, each Responsible Party, two Ministries and two EFs from RS and FBiH, will have one **GCF Project Assistant** to support implementation of activities under their responsibility. GCF Project Assistants will report to the GCF Project Coordinator; the GCF Project Coordinator will report to UNDP’s Project Manager; and the Project Manager will report to the Project Board.

111. **Project assurance:** Project assurance is the responsibility of each Board member; however, the role can be delegated. The project 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 has to be independent of the Project Manager; therefore, the Project Board cannot delegate any of their assurance responsibilities to the Project Manager. A UNDP Programme Officer typically holds the Project Assurance role on behalf of UNDP. In addition, the UNDP-Global Environmental Finance Unit in the Istanbul Regional Hub provides oversight and quality assurance support.

112. UNDP provides a three – tier oversight and quality assurance role involving UNDP staff in Country Offices and at regional and headquarters levels. 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.

113. 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. “The ‘senior supplier’ 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). The senior supplier’s primary function within the Board is to provide guidance regarding the technical feasibility of the project.

114. A detailed list of the services is presented in the table below.

Function	Detailed description of activity	Typical GCF fee breakdown
Day-to-day oversight supervision	<p>1. Project start-up:</p> <ul style="list-style-type: none"> • In the case of Full Funding Proposals, prepare all the necessary documentation for the negotiation and execution of the Funding Activity Agreement (for the project) with the GCF, including all schedules • In the case of readiness proposals, if needed assist the NDA and/or government partners prepare all the necessary documentation for approval of a readiness grant proposal • Prepare the Project Document with the government counterparts • Technical and financial clearance for the Project Document • Organize Local Project Appraisal Committee • Project document signature 	70%

Function	Detailed description of activity	Typical GCF fee breakdown
	<ul style="list-style-type: none"> • Ensure quick project start and first disbursement • Hire project management unit staff • Coordinate/prepare the project inception workshop • Oversee finalization of the project inception workshop report <p>2. Project implementation:</p> <ul style="list-style-type: none"> • <u>Project Board</u>: Coordinate/prepare/attend annual Project Board Meetings • <u>Annual work plans</u>: Quality assurance of annual work plans prepared by the project team; issue UNDP annual work plan; strict monitoring of the implementation of the work plan and the project timetable according to the conditions of the FAA and disbursement schedule (or in the case of readiness the approved readiness proposal) • <u>Prepare GCF/UNDP annual project report</u>: review input provided by Project Manager/team; provide specialized technical support and complete required sections • <u>Portfolio Report (readiness)</u>: Prepare and review a Portfolio Report of all readiness activities done by UNDP in line with Clause 9.02 of the Readiness Framework Agreement. • <u>Procurement plan</u>: Monitor the implementation of the project procurement plan • <u>Supervision missions</u>: Participate in and support in-country GCF visits/learning mission/site visits; conduct annual supervision/oversight site missions • <u>Interim Independent Evaluation Report</u>: Initiate, coordinate, finalize the project interim evaluation report and management response • <u>Risk management and troubleshooting</u>: Ensure that risks are properly managed, and that the risk log in Atlas (UNDP financial management system) is regularly updated; Troubleshooting project missions from the regional technical advisors or management and programme support unit staff as and when necessary (i.e. high risk, slow performing projects) • <u>Project budget</u>: Provide quality assurance of project budget and financial transactions according to UNDP and GCF policies • <u>Performance management of staff</u>: where UNDP supervises or co-supervises project staff • <u>Corporate level policy functions</u>: Overall fiduciary and financial policies, accountability and oversight; Treasury Functions including banking information and arrangements and cash management; Travel services, asset management, and procurement policies and support; Management and oversight of the audit exercise for all GCF projects; Information Systems and Technology provision, maintenance and support; Legal advice and contracting/procurement support policy advice; Strategic Human Resources Management and related entitlement administration; Office of Audit and Investigations oversight/investigations into allegations of misconduct, corruption, wrongdoing and fraud; and social and environmental compliance unit and grievance mechanism. 	
<p style="text-align: center;">Oversight of project completion</p>	<ul style="list-style-type: none"> • Initiate, coordinate, finalize the Project Completion Report, Final Independent Evaluation Report and management response • Quality assurance of final evaluation report and management response • Independent Evaluation Office assessment of final evaluation reports; evaluation guidance and standard setting • Quality assurance of final cumulative budget implementation and reporting to the GCF • Return of any un-spent GCF resources to the GCF 	<p>10%</p>

Function	Detailed description of activity	Typical GCF fee breakdown
<p>Oversight of project reporting</p>	<ul style="list-style-type: none"> • Quality assurance of the project interim evaluation report and management response • Technical review of project reports: quality assurance and technical inputs in relevant project reports • Quality assurance of the GCF annual project report • Preparation and certification of UNDP annual financial statements and donor reports • Prepare and submit fund specific financial reports 	<p>20%</p>
	<p>TOTAL</p>	<p>100%</p>

VIII. FINANCIAL PLANNING AND MANAGEMENT

115. The total cost of the project is *USD 122.564 million*. This is financed through a GCF grant of *USD 17.346 million*, *USD 0.3 million* in cash co-financing to be administered by UNDP and *USD 104.918 million* in parallel co-financing. UNDP, as the GCF Accredited Agency, is responsible for the oversight and quality assurance of the execution of GCF resources and the cash co-financing transferred to UNDP bank account only.

Table 9 Project Financing

Component	Outputs	Financing (MUS\$)		Total Cost per Output	
		GCF	Co-finance	Foreign Currency (Million US\$)	Local Currency ^[1] (Million BAM)
Component 1. De-risking low-carbon investment in public buildings	1.1. Policy de-risking (TA)	6.330	3.500	9.830	18.014
	1.2. Financial de-risking (FA)	10.044	101.118	111.162	203.706
	Project Management	0.972	0.600	1.572	2.881
Total project financing		17.346	105.218	122.564	224.601

116. GCF Disbursement schedule: GCF grant funds will be disbursed according to the GCF disbursement schedule. The Country Office will submit an annual work plan to the UNDP-GEF Unit 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.

Table 10 GCF Disbursement schedule

Description	Expected timing	GCF Project Funds	Milestones
<i>For Year 1 Activities</i>	Year 1	2,006,000	<ul style="list-style-type: none"> All conditions precedent for (i) effectiveness of the FAA, (ii) first disbursement and (iii) all disbursements, fulfilled. Project to be started.
<i>For Year 2 Activities</i>	Year 2	2,437,850	<ul style="list-style-type: none"> Submission of applicable APRs and financial reports, including the following evidence: <ul style="list-style-type: none"> Submission of draft Investment Framework as defined in Annex X of the Funding Proposal (deliverable 1.2.2.1) Evidence of progress in designing Investment Framework (meetings, studies, etc.)

^[1] Exchange rate used is as of February 1, 2017 (UN Operational Rates of Exchange).

Description	Expected timing	GCF Project Funds	Milestones
<i>For Year 3 Activities</i>	Year 3	2,747,850	<ul style="list-style-type: none"> • Submission of applicable APRs and financial reports, including the following evidence: <ul style="list-style-type: none"> - Adoption of 20 SECAPs (signed documents) - Adoption of National Investment Framework for low-carbon public sector buildings (signed documents)
<i>For Year 4 Activities</i>	Year 4	3,447,850	<ul style="list-style-type: none"> • Submission of applicable APRs and financial reports, including the following evidence: <ul style="list-style-type: none"> - Training of 500 people (deliverable 1.1.5.1) (pictures and signatures of attendees) - 50,000 end-users covered by PR and advocacy campaign (deliverable 1.1.6.1) (evidence of performed campaign) - Legal adoption of investment framework (deliverable 1.2.2.2) (signed documents) - USD 20 million in leveraged co-financing
<i>For Year 5 Activities</i>	Year 5	2,797,900	<ul style="list-style-type: none"> • Submission of applicable APRs and financial reports, including the following evidence: <ul style="list-style-type: none"> - Evidence that investment framework for low-carbon public sector buildings is under implementation in FBIH and RS. (pictures of work in progress, evidence of tenders and contracts). - 200 retrofit projects identified, prepared and tendered out (evidence of tenders and contracts) - 4,000 buildings covered by EMIS. (evidence in APR) - USD 35 million in leveraged co-financing
<i>For Year 6 Activities</i>	Year 6	1,787,850	<ul style="list-style-type: none"> • Submission of applicable APRs and financial reports, including the following evidence: <ul style="list-style-type: none"> - Adoption of 40 SECAPs (signed documents) - 300 retrofit projects identified, prepared and tendered out. (evidence of tenders and contracts) - USD 50 million in leveraged co-financing
<i>For Year 7 Activities</i>	Year 7	1,247,850	<ul style="list-style-type: none"> • Submission of applicable APRs and financial reports, including the following evidence: <ul style="list-style-type: none"> - 430 retrofit projects identified, prepared and tendered out. (evidence of tenders and contracts) - USD 70 million in leveraged co-financing
<i>For Year 8 Activities</i>	Year 8	872,850	<ul style="list-style-type: none"> • Submission of applicable APRs and financial reports, including the following evidence: <ul style="list-style-type: none"> - USD 90 million in leveraged co-financing
Total		17,346,000	

117. Budget Revision and Tolerance: 10% of the total overall projected costs can be reallocated among the budget account categories within the same project output. 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 the GCF's prior written consent.

118. As 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-GEF Unit.
119. Any over expenditure incurred beyond the available GCF grant amount will be absorbed by non-GCF resources (e.g. UNDP TRAC or cash co-financing).
120. Refund to GCF: Unspent GCF resources must be returned to the GCF. Should a refund of unspent funds to the GCF be necessary, this will be managed directly by the UNDP-GEF Unit in New York.
121. Project Closure: Project closure will be conducted as per UNDP requirements outlined in the UNDP POPP.¹⁶ On an exceptional basis only, a no-cost extension beyond the initial duration of the project will be sought from in-country UNDP colleagues and then the UNDP-Global Environmental Finance Executive Coordinator.
122. Operational completion: The project will be operationally completed when the last UNDP-financed inputs have been provided and the related activities have been completed. This includes the final clearance of the Final Independent Evaluation Report (that will be available in English) and the corresponding management response, and the end-of-project review Project Board meeting. The Implementing Partner through a Project Board decision will notify the UNDP Country Office when operational closure has been completed.
123. Transfer or disposal of assets: In consultation with other parties of the project, UNDP Programme Manager (UNDP Resident Representative) 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. In all cases of transfer, a transfer document must be prepared and kept on file¹⁷.
124. In addition, the following GCF requirements must be followed: As stated in Clause 9.03 of the Funding Activity Agreement included in Annex^[1], the Accredited Entity shall inform the GCF, in the final APR,

¹⁶ see <https://info.undp.org/global/popp/ppm/Pages/Closing-a-Project.aspx>

¹⁷ See

https://popp.undp.org/_layouts/15/WopiFrame.aspx?sourcedoc=/UNDP_POPP_DOCUMENT_LIBRARY/Public/PPM_Project%20Management_Closing.docx&action=default.

^[1] 23.04 of the AMA states: " In relation to a Funded Activity that is a grant financed in whole or in part with GCF Proceeds, if any part of such grant is used to purchase any durable assets or equipment used to implement the relevant Funded Activity (such as vehicles or office equipment), upon completion of the Funded Activity or termination of the relevant FAA in accordance with its terms, the Accredited Entity shall take such steps in relation to such assets or equipment which it reasonably deems in the best interest of the continued operation of the Funded Activity taking into consideration the objectives of the Fund and the terms of the applicable SBAA."

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.

125. Financial completion: The project will be financially closed when the following conditions have been met: a) The project is operationally completed or has been cancelled; b) The 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).
126. The project is required to be financially completed within 12 months of operational closure or after the date of cancellation. 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-GEF Unit for confirmation before the project will be financially closed in Atlas by the UNDP Country Office.

IX. TOTAL BUDGET AND WORK PLAN

TOTAL BUDGET AND WORK PLAN			
Atlas[1] Proposal or Award ID:	00100067	Atlas Primary Output Project ID:	00103203
Atlas Proposal or Award Title:	Scaling-up Investment in Low-Carbon Public Buildings		
Atlas Business Unit	BIH10		
Atlas Primary Output Project Title	Scaling-up Investment in Low-Carbon Public Buildings		
UNDP-GEF PIMS No.	5882		
Implementing Partner	UNDP BIH		

GCF Output / Atlas Activity	Responsible party (Atlas Implementing Agent)	Fund ID	Donor Name	Atlas Budget Account Code	Atlas Budget Account Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Amount Year 5 (USD)	Amount Year 6 (USD)	Amount Year 7 (USD)	Amount Year 8 (USD)	TOTAL (USD)	Budget Note		
Addressing non-financial barriers to investment in low-carbon public buildings ("Policy de-risking")	Federal Ministry of Physical Planning (FMPU)	66000	GCF	71300	Local Consultants	201,186	282,472	126,472	126,472	42,472	42,472	6,667	4,286	832,500	1a		
				71600	Travel	10,000	10,000	10,000	10,000	10,000	10,000	-	-	60,000	1e		
				72800	Information Technology Equipmt	10,000	5,000	2,500	2,500	-	-	-	-	20,000	1d		
				75700	Training, Workshops and Conference	12,500	12,500	5,000	5,000	7,500	7,500	-	-	50,000	1f		
				72100a	Contractual Services - Companies / Nat-Serv	472,000	516,000	182,500	137,500	53,500	53,500	10,000	10,000	1,435,000	1c		
	Ministry of Spatial Planning, Civil Engineering and Ecology of Republika Srpska (MPUGERS)			71300	Local Consultants	201,186	282,472	126,472	126,472	42,472	42,472	6,667	4,286	832,500	1a		
				71600	Travel	10,000	10,000	10,000	10,000	10,000	10,000	-	-	60,000	1e		
				72800	Information Technology Equipmt	10,000	5,000	2,500	2,500	-	-	-	-	20,000	1d		
				75700	Training, Workshops and Conference	12,500	12,500	5,000	5,000	7,500	7,500	-	-	50,000	1f		
				72100a	Contractual Services - Companies / Nat-Serv	472,000	516,000	182,500	137,500	53,500	53,500	10,000	10,000	1,435,000	1c		
	UNDP			71200	International Consultants	59,031	60,969	-	-	-	-	-	-	-	-	120,000	1b
				71300	Local Consultants	300,596	305,460	219,814	79,814	49,814	49,814	16,116	3,571	1,025,000	1a		
				72100a	Contractual Services - Companies / Nat-Serv	-	30,000	30,000	30,000	30,000	30,000	30,000	30,000	210,000	1c		
				72100b	Contractual Services - Companies / Int-Serv	30,000	30,000	30,000	30,000	30,000	30,000	-	-	180,000	1c		
						1,800,999	2,078,373	932,758	702,758	336,758	336,758	79,450	62,143	6,330,000			
Addressing financial barriers to low-carbon investment in buildings ("Financial de-risking & Investment Support")	Federal Ministry of Physical Planning (FMPU)		GCF	71300	Local Consultants	14,018	5,140	5,140	5,140	5,140	5,140	5,140	5,140	50,000	2a		
				72100c	Contractual Services - Companies / Nat-G&W	-	72,286	618,142	966,892	860,410	468,517	362,507	228,747	3,577,500	2c		
	Ministry of Spatial			71300	Local Consultants	14,018	5,140	5,140	5,140	5,140	5,140	5,140	5,140	5,140	50,000	2a	

	Planning, Civil Engineering and Ecology of Republika Srpska (MPUGERS)			72100c	Contractual Services - Companies / Nat-G&W	-	72,286	618,142	966,892	860,410	468,517	362,507	228,747	3,577,500	2c	
	UNDP	66000		71200	International Consultants	-	-	-	-	-	25,000	20,000	19,000	64,000	2b	
				71300	Local Consultants	56,071	20,562	20,562	20,562	20,562	30,561	25,561	25,561	220,000	2a	
				75700	Training, Workshops and Conference	-	-	-	-	-	-	10,000	10,000	20,000	2d	
				71300	Local Consultants	14,018	5,140	5,140	5,140	5,140	5,140	5,140	5,140	50,000	2a	
	Environmental Protection Fund of Federation of Bosnia and Herzegovina (EF FBiH)			72100c	Contractual Services - Companies / Nat-G&W	-	24,095	206,047	322,297	286,803	156,172	120,836	76,249	1,192,500	2c	
	Environmental Protection and Energy Efficiency Fund of Republika Srpska (EF RS)	66000		71300	Local Consultants	14,018	5,140	5,140	5,140	5,140	5,140	5,140	5,140	50,000	2a	
				72100c	Contractual Services - Companies / Nat-G&W	-	24,095	206,047	322,297	286,803	156,172	120,836	76,249	1,192,500	2c	
TOTAL Output 2						112,143	233,884	1,689,500	2,619,500	2,335,548	1,325,499	1,042,807	685,113	10,044,000		
Project Management	Federal Ministry of Physical Planning (FMPU)	66000	GCF	71400	Contractual Services - Individ	5,732	7,753	7,753	7,753	7,753	7,753	7,753	7,753	60,000	3b	
	Ministry of Spatial Planning, Civil Engineering and Ecology of Republika Srpska (MPUGERS)				Contractual Services - Individ	5,732	7,753	7,753	7,753	7,753	7,753	7,753	7,753	60,000	3b	
				71200	International Consultants	7,834	10,595	10,595	10,595	10,595	10,595	10,595	10,595	82,000	3a	
				71400	Contractual Services - Individ	62,096	83,986	83,986	83,986	83,986	83,986	83,986	83,986	650,000	3b	
	UNDP	04000	Accredited Entity	74100	Audit, professional services	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	64,000	3c
				71400	Contractual Services - Individ	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	80,000	3b	
				71500	UNV	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	80,000	3b	
				71600	Travel	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	60,000	3d	
				75700	Training, Workshops and Conference	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	16,000	3e	
	Environmental Protection Fund of Federation of Bosnia and Herzegovina (EF FBiH)	66000	GCF	71400	Contractual Services - Individ	5,732	7,753	7,753	7,753	7,753	7,753	7,753	7,753	60,000	3b	
	Environmental Protection and Energy Efficiency Fund of Republika Srpska (EF RS)			71400	Contractual Services - Individ	5,732	7,753	7,753	7,753	7,753	7,753	7,753	60,000	3b		

TOTAL Output 3	130,358	163,093	163,093	163,093	163,093	163,093	163,093	163,093	1,272,000	
Total GCF	2,006,000	2,437,850	2,747,851	3,447,851	2,797,899	1,787,850	1,247,850	872,849	17,346,000	
AE (USD 300,000 trac only, without GEF and other UNDP non-trac contribution)	37,500	37,500	37,500	37,500	37,500	37,500	37,500	37,500	300,000	
Total Amount	2,043,500	2,475,350	2,787,351	3,485,351	2,835,399	1,825,350	1,285,350	910,349	17,646,000	

Note	Description of cost item
1A	<p>Individual External Consultants (1a and 1c represent same activities/ sub- activities of the component 1 but are split into groups of costs per contract type. Distribution of the budget per different types of contract (individual contracts/ consultants and service contract companies/ professional companies) is made in order to provide partners the choice to procure the best expertise from companies and individual consultants. In different segments there may be need for both as accreditation for certain activities is required (for example energy audits).</p> <p>Individual Contract</p> <p>1.2.1 Implementation of EMIS in 1.500 public sector buildings Individual consultants to work on EMIS (Year 1- Year 6 annually 250 buildings registered in EMIS, Cost per Unit 290 USD) – Total value 435,000 USD. Responsible party UNDP. Type of consultancy: EMIS Assistants, 3 external consultants, 6 years duration, annual cost per consultant 24, 166.67 USD.</p> <p>1.2.2 Training of 3.000 end-users on EMIS (for each public building two) Individual consultants to perform EMIS related trainings (Year 1- Year 6 annually 250 end-users trained on EMIS, Cost per Unit 150 USD). Total value 225.000 USD. Responsible party UNDP. Type of consultancy: EMIS Trainers, 3 external consultants, 6 years duration, annual cost per consultant 12,500 USD</p> <p>1.3.1a and 1.3.1b Detailed Techno Economic Analysis Individual consultants to perform /Detailed Tech Economic Analysis (i.e. GHG emission reduction calculations, financial and economic analysis of different EE/RES measures options/scenarios, and defining the best-option to be implemented in public sector buildings) based on Energy Audits (Energy audits (EA) and techno-economic analysis of audits) Year 1 28 EAs Year 2 160 EAs Year 3 56 EAs Year 4 56 EAs). Total value 1,190,000 USD. Responsible parties FMPU and MPGURS at equal share. Type of consultancy: External Economic Expert; Depending on number of annual audits, consultants will be engaged as follows: Y1- 28 Audits: 2 consultants at annual cost of 31,875 USD (average cost per audit 1,190 USD) Y2 -160 Audits: 12 consultants at annual cost of 31,875 USD (average cost per audit 1,190 USD) Y3 and Y4 each 56 audits: 4 consultants at annual cost of 33.469 USD (average cost per audit 1,190 USD) Y3 and Y4 each 56 audits: 4 consultants at annual cost of 33.469 USD (average cost per audit 1,190 USD) Type of consultancy: External Technical Expert GHG Emissions; Depending on number of annual audits, consultants will be engaged as follows: Y1- 20 Audits: 2 consultants at annual cost of 21.250 USD (average cost per audit 793 USD) Y2 -160 Audits: 12 consultants at annual cost of 21,250 USD (average cost per audit 793 USD) Y3 and Y4 each 56 audits: 4 consultants at annual cost of 22,313 USD (average cost per audit 793 USD)</p> <p>1.3.2a Project design (non-EE) Individual consultants to support design technical specifications for buildings – Total value 240,000 USD. Responsible parties FMPU and MPGURS at equal share.</p>

Note	Description of cost item
	<p>50 buildings within 6 years Type of consultancy: External Engineers: architecture/ civil/mechanical or other technical background depending on type of intervention identified; annually 2 consultants, annual cost per consultant 20,000 USD; 6 years</p> <p>1.4.1a, 1.4.1b and 1.4.1c EE projects oversight & implementation support Individual consultants to perform project site oversight for a total of 65 public sector buildings (EE projects oversight & implementation support Year 1 - Year 6 annually 10 at cost of 3,461.54 USD, in Year 7 there will be 5 oversights at cost of 3,461.54 USD each). Total value 225,000 USD. Responsible parties UNDP with 50,000 USD and FMPU and MPGURS with 87,500 USD each. Type of consultancy: External Engineers: architecture/ civil/mechanical or other technical background depending on type of intervention identified; 3 consultants, average annual cost per consultant 10,714.29 USD; duration 7 years.</p> <p>1.5.1 Training for various project stakeholders Individual consultants to provide trainings to stakeholders and ESCO companies to educate them about energy management, project development, implementation and monitoring. (Year 1 to Year 3 annually 4 trainings for stakeholders In the Year 4 - 2 trainings for stakeholders, Cost per training of 15,000.00 USD Total value 210,000 USD. Responsible party UNDP. Y1 to Y3, Type of consultancy: Trainers for Energy Mngt, ESCO and Energy Efficiency in public sector buildings, 3 external consultants (mechanical, civil and electric Engineers), 3 years duration, annual cost per consultant 20,000 USD for four training sessions each year Y4, Type of consultancy: Trainers for Energy Mngt, ESCO and Energy Efficiency in public sector buildings, 3 external consultants (mechanical, civil and electric Engineers), 1-year duration, annual cost per consultant 10,000 USD for two training session)</p> <p>1.6.1 Media Campaign Local consultants to support media campaign (Awareness raising for end users of public buildings - Year 2 to Year 8- annual average cost of 3,572 USD). Total value 25,000 USD. Responsible party UNDP. External Individual Consultants for: design, publications preparation, focus groups market research; usually this kind of short consultancies are hired to prepare and accompany the actual media campaign or to support visibility events and products) Total value 25,000 USD. Responsible party UNDP.</p> <p>1.6.2a and 1.6.2b Media Campaign Local consultants to provide PR support. Total value 60,000 USD. Responsible parties FMPU and MPGURS at equal share. The RPs will engage external consultants for PR support provision. Each RP will engage PR Expert in the period of 7 years and at the average annual cost per consultant of 4,286 USD.</p> <p>1.7.1 Drafting policy and regulatory framework External Individual Local Consultants to draft policies for regulatory framework (Drafting policy and regulatory framework Year 1 - 39,353.85 USD Year 2 40,646.15USD). Total value 80,000 USD. Responsible party UNDP. Y1 - Type of consultancy: local Legal Expert, Financial Expert and Energy Expert, 3 external consultants, 1-year duration, annual cost per consultant 13.117,95 USD. Y2 - Type of consultancy: local Legal Expert, Financial Expert and Energy Expert, 3 external consultants, 1-year duration, annual cost per consultant 13.548.72 USD.</p>

Note	Description of cost item
1B	<p>1.7.1 Drafting policy and regulatory framework</p> <p>External Individual International Consultants to draft policies for regulatory framework (Drafting policy and regulatory framework Year 1 – 59,030.77 USD Year 2 60,969.23USD)</p> <p>Total value 120,000 USD. Responsible party UNDP.</p> <p>Y1 - Type of consultancy: International EE Policy Expert, 1 external consultants, 1-year duration, annual cost per consultant 59,030.77 USD.</p> <p>Y2 - Type of consultancy: International EE Policy Expert, 1 external consultants, 1-year duration, annual cost per consultant 60,969.23 USD.</p>
1C	<p>Service Contract Companies (1a and 1c represent same activities/ sub-activities of the component 1 but are split into groups of costs per contract type. Distribution of the budget per different types of contract (individual contracts/ consultants and service contract companies/ professional companies) is made in order to provide partners the choice to procure the best expertise from companies and individual consultants. In different segments there may be need for both as accreditation for certain activities is required (for example energy audits.)</p> <p>1.1.1a and 1.1.1b SECAP (Sustainable Energy Cities Action Plans) update and preparation</p> <p>Local company to conduct revision and preparation of SECAPs (Year 1 20 SECAPs*20,000 USD/ Year 2 16 SECAPs*20,000 USD). Total value 720,000 USD. Responsible parties FMPU and MPGURS at equal share.</p> <p>Y1- 20 SECAPs: 4 consulting companies (5 SECAPs per Lot) at cost per SECAP of 20,000.00 USD</p> <p>Y2- 16 SECAPs: 4 consulting companies (4 SECAPs per Lot) at cost per SECAP of 20,000.00 USD</p> <p>1.2.3 EMIS O&M & upgrade costs</p> <p>Companies to develop and provide EMIS upgrades (Year 1 - Year 6 EMIS upgrades at annual cost of 30,000 USD). Total value 180,000 USD. Responsible party UNDP.</p> <p>EMIS needs Annual Maintenance and Upgrades. The annual value amounts 24,000 USD (as per past EMIS O&M contracts) to the service provider. In case of additional modules or software updates are needed some reserve of 6,000 USD on annual basis has been planned.</p> <p>Annual cost 30,000 USD in 6 years duration.</p> <p>1.2.4a and 1.2.4b Municipal/entity-level energy management</p> <p>Companies to perform trainings (three days training programme per training session) (Municipal /Entity EEM Trainings throughout 6 years, the actual cost per training depends on number of attendees and venue selection. The allocation for trainings covers also all material to be produced and distributed.) Total value 540,000 USD. Responsible parties FMPU and MPGURS at equal share.</p> <p>Y1 to Y6, Type of consultancy: Consulting company to deliver training on Energy Mngt and Energy Efficiency in public sector buildings, 2 consulting companies (for each entity - RS and FBIH, one), annual cost per company for 45,000 USD for three training sessions each year per entity (RS, FBIH)</p> <p>1.3.1a and 1.3.1b Detailed Techno Economic Analysis</p> <p>Companies to perform Energy Audits / Detailed Techno Economic Analysis (Energy audits (EA) and techno-economic analysis of audits</p> <p>Year 1 28 EAs Year 2 160 EAs Year 3 56 EAs Year 4 56 EAs)</p> <p>Total value 1,210,000 USD. Responsible parties FMPU and MPGURS at equal share.</p>

Note	Description of cost item
	<p>As already noted this is the part of budget planned for companies, in this case to perform the energy audit and measurements on public sector buildings. Only companies certified by Ministries of Spatial Planning can perform this type of work. In addition, GHG Emissions and Economic Experts will be engaged (see 1A) to have a full bankable energy audit document for subjected public buildings)</p> <p>Year 1 - 28 audits; 2 companies at the cost of 3,858 USD per audit. Total 108,036 USD Year 2 - 160 audits; 2 companies at the cost of 3,858 USD per audit. Total, 648,214 USD. Year 3 - 56 audits; 2 companies at the cost of 3,858 USD per audit. Total 226,875 USD Year 4 - 56 audits; 2 companies at the cost of 3,858 USD per audit. Total 226,875 USD.</p> <p>1.3.2a and 1.3.2b Project design (non-EE) Companies to design technical specifications for buildings (in order to produce Main Project Design documents only companies which have accreditation from Ministry can perform those services; while individual consultants will perform services of developing technical specification for Project Ideas Designs and support accredited companies in the development of Main Project Design) Total value 260,000 USD. Responsible parties FMPU and MPGURS at equal share. 50 buildings within 6 years Type of consultancy: Accredited companies; annually 2 companies (for each entity one - i.e. RS and FBiH), annual cost per company 21,666.67 USD; 6 years,</p> <p>1.6.1 Media Campaign Professional companies to provide media campaign (Awareness raising for end users of public buildings - Year 2 to Year 8- annual average cost of 30,000 USD). Total value 210,000 USD. Responsible party UNDP. As already noted this is the part of budget planned for companies, in this case to run media campaign on annual basis for UNDP. Annual estimated cost 30,000 USD. The campaign will be supported by consultants from 1A.</p> <p>1.6.2a and 1.6.2b Media Campaign Professional companies to provide PR support Total value 140,000 USD. Responsible parties FMPU and MPGURS at equal share. As already noted this is the part of budget planned for companies, in this case to provide PR support on annual basis for RPs. Annual estimated cost 20,000 USD for both RPs. The PR activities will also be supported by consultants from 1A.</p>
1D	<p>1.2.4a and 1.2.4b Municipal/entity-level energy management Laptops for municipal/ entity trainings (Procurement of several laptops in order to enable multiple trainings in parallel) Total value 40,000 USD. Responsible parties FMPU and MPGURS at equal share. 16 laptops and necessary software at the price of app 2,500 USD. The Project will have to transfer the ownership of laptops to the 2 RPs. RPs will continue providing trainings in EMIS for new users and energy managers. Very often there is change in staffing at the public-sector buildings level and municipal level. Hence, there must be continuous possibility to provide trainings. Having equipment available enables prompt the organization of trainings.</p>
1E	<p>1.2.4a and 1.2.4b Municipal/entity-level energy management Travel Costs Total value 120,000 USD. Responsible parties FMPU and MPGURS at equal share.</p>

Note	Description of cost item
	<p>Lump sum, 10,000 USD per RP a year. Total cost 60,000 USD (for 6 years, and a total of 36 training sessions). Having in mind that there will be multiple trainings for 143 municipalities (in two entities - RS and FBiH), even if grouped, the teams will have to travel a lot throughout the country. This calculation was based on average cost of UNDPs travel within similar project.</p>
1F	<p>1.2.4a and 1.2.4b Municipal/entity-level energy management Organization costs, venue, materials (Municipal /Entity EEM Trainings throughout 6 years, the actual cost per training depends on number of attendees and venue selection. The allocation for trainings covers also all material to be produced and distributed.) Total value 100,000 USD. Responsible parties FMPU and MPGURS at equal share. Lump sum of up to 2,800 USD per training session (total number of 36 training sessions) for production and distribution of supporting training material. This calculation was based on average cost of UNDPs past training session on municipal level within similar projects.</p>
2A	<p>2.1.2a, 2.1.2b, 2.1.2c and 2.1.2d Design and Monitoring of the Investment Framework Individual Consultants to design and monitor Investment Framework (Y1 - 112,142.86 USD for local and international consultants (development of Framework) Y2 - Y8 41,122.46 USD for local and international consultants (monitoring of implementation of the developed Framework)) Total value 400,000 USD. Responsible parties UNDP with 200,000 USD; FMPU, MPGURS, EF FBiH and EF RS with 50,000 USD each. Y1 - Type of consultancy: International EE ESCO and Financial Expert, 2 external consultants, 1 year duration, annual cost per consultant 30,000 USD. Y1 - Type of consultancy: local Legal Expert and Energy Expert, 2 external consultants, 1 year duration, annual cost per consultant 10,000 USD. Y2 - Y8, Type of consultancy: International EE ESCO Expert, 1 external consultants, annual cost per consultant 17,142.85 USD; 7 years Y2 - Y8, Type of consultancy: two local energy experts and two local financial experts, 4 external consultants, annual cost per consultant 7,142.85 USD; 7 years</p> <p>2.1.3 Lessons learnt and knowledge sharing Local Individual Consultants to collect and analyze lessons learnt Y6 – Y8. Total value 20,000 USD. Responsible party UNDP. Y6-Y8- Type of consultancy: local Energy Expert, 1 external consultants, 2-year duration, annual cost per consultant 20,000 USD.</p>
2B	<p>2.1.3 Lessons learnt and knowledge sharing International Individual Consultants to collect and analyze lessons learnt Y6 – Y8. Total value 64,000 USD. Responsible party UNDP. Y6 - Y8, Type of consultancy: International EE Energy Expert, 1 external consultants, annual cost per consultant 32,000 USD; 2 years</p>
2C	<p>2.1.1a, 2.1.1b, 2.1.1c and 2.1.1d Implementation of Framework for Investment in Low-carbon buildings Companies to implement EE projects Type of companies that will be engaged will depend on type of works to be performed but usually those are civil construction and mechanical and electro installations companies. The plan is following: Year 1 - no Public Sector Buildings (PSB) will be reconstructed, only preparation for Year 2 will take place.</p>

Note	Description of cost item
	<p>Year 2 - 8 PSB Year 3 - 74 PSB Year 4 - 116 PSB Year 5 - 104 PSB Year 6 - 56 PSB Year 7 - 44 PSB Year 8 - 28 PSB</p> <p>Average cost per building in value of 22,390 USD or more precisely 22,186 USD (9,540,000 USD / 430 PSB) refers only to the GCF funds part, which is only 1/5 of the total investment per building. The remaining 4/5 need to be covered by co-financing, as the co-financing ratio has been set to 1:5 in the proposal. The actual cost per building will be assessed individually and will depend on actual measures to be implemented. This information will come from Detailed Energy Audits (DEA) for each building.</p> <p>The average cost per building app 110,930 USD has been derived from the investments of the Green Economic Development Project implemented by UNDP in last 5 years (86 public sector buildings). The co- financing will be used to apply all identified energy efficiency measure. Detailed calculation with co- financing is provided in Detailed budget table.</p> <p>Implementation of Framework for Investment in Low-carbon buildings - Infrastructure works EE, Annual cost estimated based on number of buildings per year as within ProDoc. Unit costs per building depends on actual measures implemented and bidding results.</p> <p>Responsible parties FMPU and MPGURS with 3,577,500 USD each; F FBIH and EF RS with 1,192,500 USD each (total 9,540,000 USD all RPs – Y2 – Y8).</p>
2D	<p>2.1.3 Lessons learnt and knowledge sharing Organization costs, venue, materials Y7-78, 20,000.00 USD Total value 20,000 USD. Responsible party UNDP. Lump sum of up to 2,500 USD per workshop (total number of 8 workshops within two years) for venue and materials.</p>
3A	<p>3.1.1a Project Management International Consultant/CTA International UNDP procurement of part-time international Chief Technical Advisor for 8 years; Total value 82,000 USD. Responsible party UNDP. Y1 - Y8, Type of consultancy: International Energy Expert, 1 external consultants, annual average cost 10,250.00 USD; 8 years</p>
3B	<p>3.1.1a Project Management Project Manager to be hired but will become UNDP staff/service contract holder- Total value 270,000 USD. Responsible party UNDP. GCF Project Coordinator to be hired but will become UNDP staff/service contract holder- Total value 210,000 USD. Responsible party UNDP. Administrative Assistant to be hired but will become UNDP staff/service contract holder - Total value 170,000 USD. Responsible party UNDP. Locally contracted staff by RP- Total value USD. Responsible parties FMPU, MPGURS, F FBIH and EF RS with 60,000 USD each (total 240,000 USD). (GCF Budget for: Project Manager, GCF Project Coordinator and Administrative Assistant for 8 Years and 4 GCF Project Assistant for 7 Years) Cash co-financing support by UNDP: 80,000 USD for Sector Technical Experts and Communication Officer; 80,000 USD for Technical Assistants (UNV)</p>

Note	Description of cost item
	Total value 160,000 USD. Responsible party UNDP.
3C	Cash co-financing support by UNDP for Audit Cost. Total value 64,000 USD. Responsible party UNDP.
3D	Cash co-financing support by UNDP for travel UNDP staff. Total value 60,000 USD. Responsible party UNDP.
3E	Cash co-financing support by UNDP. Consultation meetings, Project Boards, etc. Total value 16,000 USD. Responsible party UNDP.
NB	Distribution of the budget per different types of contract (individual contracts/ consultants and service contract companies/ professional companies) is made in order to provide partners flexible choice to procure the best possible expertise. In different segments there may be need for both. E.g. energy audits: companies are hired to collect technical information on the buildings and do measurements such as thermal characteristics, while individual experts are hired to calculate GHG emissions reductions and to provide economic and financial calculations.

Indicative disbursement schedule for „Scaling-up Investment in Low-Carbon Public Buildings in Bosnia and Herzegovina”- FP 051

Disbursements	Amount (in USD)	Indicative expected month and year of disbursement
Disbursement 1	2,006,000	September 2018
Disbursement 2	2,437,850	September 2019
Disbursement 3	2,747,850	September 2020
Disbursement 4	3,447,850	September 2021
Disbursement 5	2,797,900	September 2022
Disbursement 6	1,787,850	September 2023
Disbursement 7	1,247,850	September 2024
Disbursement 8	872,850	September 2025
TOTAL (disbursement 1 to 8)	17,346,000	

X. LEGAL CONTEXT

127. 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.”
128. The United Nations Development Assistance Framework in Bosnia and Herzegovina for the period 2015-2019 (signed by the Council of Ministers of Bosnia and Herzegovina and UN on 15 June 2015), as well as the current UNDP Country Programme Document 2015-2019 represent the basis for the activities of UNDP in the country.
129. Any designations on maps or other references employed in this project document do not imply the expression of any opinion whatsoever on the part of UNDP concerning the legal status of any country, territory, city or area or its authorities, or concerning the delimitation of its frontiers or boundaries.
130. By signing this UNDP GCF project document, the Implementing Partner also agrees to the terms and conditions of the GCF Funded Activity Agreement (FAA) included in Annex and to use the GCF funds for the purposes for which they were provided. UNDP has the right to terminate this project should the Implementing Partner breach the terms of the GCF FFA.

XI. RISK MANAGEMENT

131. This project will be implemented by UNDP (“Implementing Partner”) in accordance with Financial Regulations and Rules of UNDP.
132. UNDP as the Implementing Partner will comply with the policies, procedures and practices of the United Nations Security Management System (UNSMS.)
133. UNDP as the Implementing Partner will undertake all reasonable efforts to ensure that none of the project funds [UNDP funds received pursuant to the Project Document] are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via http://www.un.org/sc/committees/1267/aq_sanctions_list.shtml. This provision must be included in all sub-contracts or sub-agreements entered into under this Project Document.
134. 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>).
135. 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.
136. 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.
137. 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 will take appropriate steps to prevent misuse of funds, fraud or corruption, 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 and anti-fraud policies are in place and enforced for all funding received from or through UNDP.
- d. 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 and (b) 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.
- e. 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.
- f. 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 or corruption 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.

- g. 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 or corruption, or otherwise paid other than in accordance with the terms and conditions of the 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.

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 or corruption, 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.

- h. 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.

- i. 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.
- j. 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.

XII. MANDATORY ANNEXES

Annex A: GCF Funding Activity Agreement and Notice of Effectiveness

Annex B: GCF Board approved GCF Funding Proposal

Annex C: Letter of agreement between the Implementing Partner and Responsible Parties

Annex D: Letters of co-financing

Annex E: Timetable of project implementation

Annex F: Procurement plan

Annex G: Monitoring and Evaluation Plan

Annex H: Terms of References for Project Board and Project Team

Annex I: UNDP Social and Environmental and Safeguards screening procedure (SESP) and Environmental and Social Management Plan or Framework (ESMP or ESMF) as relevant

Annex J: Stakeholder Engagement Plan

Annex K: Gender Analysis and Action Plan

Annex L: UNDP Risk Log

Annex M: LOA with the government in case DPCs are applied – N/a

Annex N: Capacity Assessment including HACT micro assessment

Annex O: Supporting Documents (Annexes from the Funding Proposal) used for the Quality Assurance Report

Annex P: UNDP Project Quality Assurance Report (completed in UNDP online corporate planning system)

Annex R: Abbreviations list

Report

Annex A: GCF Funding Activity Agreement and Notice of Effectiveness



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Annex B: GCF Board approved GCF Funding Proposal

(this can be a link to the approved proposal on the GCF website, once published)

[https://www.greenclimate.fund/documents/20182/820027/GCF_B.18_04_Add.06 -
_Funding_proposal_package_for_FP051.pdf/b85e87f3-ea0b-4c3e-806e-c449cd69bcae](https://www.greenclimate.fund/documents/20182/820027/GCF_B.18_04_Add.06_-_Funding_proposal_package_for_FP051.pdf/b85e87f3-ea0b-4c3e-806e-c449cd69bcae)

Annex C: Letter of agreement between the Implementing Partner and Responsible Parties

Provided separately.

Annex D: Letters of co-financing

Provided separately.

Annex E: Timetable of project implementation

COMPONENTS/ OUTPUTS	Year1				Year2				Year3				Year4				Year5				Year6				Year7				Year8				Year9													
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4										
Component 1 - Scaling-up Investment in Low-Carbon Public Buildings																																														
Output 1- Addressing non-financial barriers to investment in low-carbon public buildings ("Policy de-risking)																																														
Activity 1.1 SECAPs update and preparation																																														
Activity 1.1 SECAPs update and preparation	x	x	x	16 SECAPs developed	x	x	x		24 SECAPs developed (total number of developed SECAPs 30)	x	x	x		20 SECAPs adopted	x	x	x		10 SECAPs adopted (total number of adopted SECAPs 30)	x	x	x		5 SECAPs adopted (total number of adopted SECAPs 35)	x	x	x		5 SECAPs adopted (total number of adopted SECAPs 40)																	
Activity 1.2 Energy Management																																														
Activity 1.2 Energy Management	x	x	x	250 Public Sector Buildings (PSB) registered in EMIS. Number of buildings covered through GCF funds	x	x	x		250 Public Sector Buildings (PSB) registered in EMIS (total number of registered buildings 500). Number of buildings covered through GCF funds	x	x	x		250 Public Sector Buildings (PSB) registered in EMIS (total number of registered buildings 750). Number of buildings covered through GCF funds	x	x	x		250 Public Sector Buildings (PSB) registered in EMIS (total number of registered buildings 1000). Number of buildings covered through GCF funds	x	x	x		250 Public Sector Buildings (PSB) registered in EMIS (total number of registered buildings 1250). Number of buildings covered through GCF funds	x	x	x		250 Public Sector Buildings (PSB) registered in EMIS (total number of registered buildings 1500). Number of buildings covered through GCF funds. Total PSB in BILH covered 4000.																	
Activity 1.3 EE-RES projects preparation																																														
Activity 1.3 Detailed Techno-Economic Analysis	x	x	x	28 Detailed Energy Audits (EA) conducted	x	x	x		160 Detailed Energy Audits conducted (total number of EAs 188)	x	x	x		56 Detailed Energy Audits conducted (total number of EAs 244)	x	x	x		56 Detailed Energy Audits conducted (total number of EAs 300)	x	x	x		300 Detailed Energy Audits verified	x	x	x		300 Public Buildings identified for retrofit																	
Activity 1.4 EE projects oversight & implementation support																																														
Activity 1.4 EE projects oversight & implementation support	x	x	x	EE projects oversight & implementation support provided for 8 buildings	x	x	x		EE projects oversight & implementation support provided for 74 buildings (total number of buildings 82)	x	x	x		EE projects oversight & implementation support provided for 116 buildings (total number of buildings 198)	x	x	x		EE projects oversight & implementation support provided for 104 buildings (total number of buildings 302)	x	x	x		EE projects oversight & implementation support provided for 56 buildings (total number of buildings 358)	x	x	x		EE projects oversight & implementation support provided for 44 buildings (total number of buildings 402)	x	x	x		EE projects oversight & implementation support provided for 28 buildings (total number of buildings 430)												
Activity 1.5 Training for various project stakeholders																																														
Activity 1.5 Training for various project stakeholders			x	125 various stakeholders trained on energy management, project development, implementation and monitoring.	x	x	x		125 (total 250) various stakeholders trained on energy management, project development, implementation and monitoring.	x	x	x		125 (total 375) various stakeholders trained on energy management, project development, implementation and monitoring.	x	x	x		120 (total 500) various stakeholders trained on energy management, project development, implementation and monitoring.																											
Activity 1.6 Awareness raising for building end-users																																														
Activity 1.6 Media Campaign (UNDP)				1 media campaign on EE RES conducted	x	x	x		1 media campaign on EE RES conducted	x	x	x		1 media campaign on EE RES conducted	x	x	x		1 media campaign on EE RES conducted	x	x	x		1 media campaign on EE RES conducted	x	x	x		1 media campaign on EE RES conducted	x	x	x		1 media campaign on EE RES conducted												
Activity 1.7 Drafting policy and regulatory framework																																														

Annual Project Report (APR)					x																															
Interim Independent Evaluation Report																																				
Project Completion Report (last APR)																																				
Final Independent Evaluation Report																																				

Annex F: Procurement plan

Provided separately.

Annex G: Monitoring and Evaluation Plan

Provided separately.

Annex H: Terms of References for Project Board and Project Team

Terms of reference are provided below for Project manager, Chief technical advisor, Project assistant, Project board and Financial mechanism development consultant

Project Manager

Summary of key functions:

In consultation with the Project Board, the Project Manager (PM) is responsible for day-to-day management, coordination and supervision of the implementation of the Project. Specifically, his/her responsibilities are but not limited to the following:

1. Supervises and ensures the timely implementation of the project relevant activities;
2. Prepares a detailed work plan for the project, manages the procurement and the project budget to assure timely involvement of local and international experts, organization of training and public outreach, purchase of required equipment etc. in accordance with UNDP rules and procedures;
3. Assures coordination among project activities;
4. Liaises with the relevant ministries, national and international research institutes, NGOs, and other relevant institutions in order to gather and disseminate information relevant to the project and organize realization of project activities;
5. Supervises and coordinates the contracts of the experts working for the project;
6. Submission of annual Project Implementation Reviews and other required progress reports (such QPRs) to the PSC and the UNDP in accordance with the section “Monitoring and Evaluation” of the Project Document;
7. As applicable, communicating with the project’s international partners and attracting additional financing in order to fulfil the project objectives; and
8. Ensuring otherwise successful completion of the project in accordance with the stated outcomes and performance indicators summarized in the project’s results framework and within the planned schedule and budget.

Required Skills and Experience:

- Advanced degree in environment/development/management related studies or other related disciplines;
- Ten years’ experience in managing projects, including demonstrated capacity to actively explore new, innovative implementation and financing mechanisms to achieve the project objective;
- Good understanding of environment/development issues in BiH;
- Demonstrated experience in working with government, donors and the United Nations system;
- Good analytical and problem-solving skills and the related ability for adaptive management with prompt action on the conclusion and recommendations coming out from the project’s regular monitoring and self-assessment activities as well as from periodic external evaluations;
- Ability and demonstrated success to work in a team, to effectively organize it, and to motivate its members and other project counterparts to effectively work towards the project’s objective and expected outcomes;
- Good communication skills and competence in handling project’s external relations at all levels;
- Familiarity and prior experience with UNDP, GEF and GCF requirements and procedures are considered as an asset;
- Fluency in English and local languages.

GCF Project Coordinator

Summary of key functions:

The National Coordinator will provide technical advice and support to the implementation of the different programme activities, and in doing so will work to ensure coherence with the project framework developed on the global level and with relevant initiatives at the national level. The Project Coordinator will undertake overall monitoring of the use of funds, the procurement of materials/equipment and the recruitment of personnel and will be supported by an administration and finance associate. In addition, he/she will provide guidance on the strategic direction of the project to other project management unit staff (i.e., administration and finance associate) and technical experts recruited to deliver project activities.

- Manage the overall implementation of the GCF National Programme activities:
 - Organize and coordinate programme activities (such as workshops, studies and publications, advisory services and other activities and outputs), subcontracts, equipment and administrative support;
 - Promote overall integration of the programme into the country's existing and planned readiness and related activities, the national climate change policies and plans;
 - Encourage shared learning with national partners and the other national coordinators;
 - Supervise personnel and subcontractors engaged in delivering aspects of the programme's work plans
 - Provide secretariat services to the PB; this will include conveying/coordinating the PB meetings; ensuring that all PB representatives receive relevant information ahead of meetings; presenting the Programme's progress to the PB; taking notes during – and circulating notes after the PB meetings;
 - 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;
 - Ensure close coordination between other relevant climate change projects and programmes, both in-country and those lead by the partners, the GCF Secretariat, and other organizations;
 - Facilitate coordination and other support for consultants hired for the Programme, and for any relevant missions directly related to the Programme;
 - Ensure that the national programme produces the outcomes specified in the GCF Readiness Plan at the required quality standards and within the specified cost and time limits;
 - Timely preparation and submission of required reports, including technical and financial reports to relevant parties.
- Creating strategic partnership with key stakeholders:
 - Coordinate the activities of the partners to ensure harmonization and avoid redundancy;
 - Coordinate the implementation of the country readiness plan in accordance with the GCF Readiness Programme at the global level;
 - Update and seek authorization from the Partner agencies at the global level regarding significant changes to annual work plans, in order to ensure global coherence of the Programme.
- Providing technical advice and support to the implementation of the Programme activities:
 - Provide technical inputs to the implementation of the different Programme activities and outputs – including by organizing and participating in meetings, trainings, workshops and other events and by providing analysis of results of the workshop/trainings/meetings/events, by providing technical inputs to workshop presentations, to studies, to advisory services and to other activities and outputs of the national Programme;
 - Prepare, in consultation with the partners, TORs for consultants and comment on their reports ;

- Facilitate the building of capacity and awareness of key stakeholders regarding climate finance readiness, including among the private sector and civil society;
- Develop relevant policy briefs, lessons learned documents, communication materials, website updates, and other relevant publications;
- Provide policy advice related to the GCF process.
- Monitoring, evaluation and reporting of the overall Programme deliverables:
 - Carry out regular follow-up and monitoring of implementation activities;
 - Carry out regular monitoring and reporting on risks and mitigation measures;
 - Ensure timely preparation and submission of required reports, including bi-annual progress and expenditure reports, per the requirements of the donors;
 - Provide regular updates on the Programme's progress to key stakeholders according to the communication plan
 - Facilitate independent evaluations as fielded by Programme partners.

Competencies

- Demonstrates integrity by modeling the UN's values and ethical standards;
- Promotes the vision, mission, and strategic goals of UNDP;
- Displays cultural, gender, religion, race, nationality and age sensitivity and adaptability;
- Treats all people fairly without favoritism;
- Fulfills all obligations to gender sensitivity and zero tolerance for sexual harassment.
- Demonstrated excellence in clear, concise and convincing writing and communication skills;
- Highly organized with strong analytical and research skills;
- Demonstrated ability to work effectively as part of a collaborative team and process;
- Ability to work with multiple stakeholders across a wide range of disciplines;
- Ability to work with diverse partners and ensure coherence in activities;
- Ability to identify areas of potential conflicts and take appropriate steps to deal with these.
- Promotes sharing of knowledge and experience, and actively works towards continued personal learning and development;
- Good practical knowledge of inter-disciplinary development issues;
- Ability to go beyond established procedures and models, propose new approaches which expand the range of projects;
- Builds strong relationships with all partner, focuses on impact and results and responds positively to critical feedback;
- Consistently approaches work with energy and a positive, constructive attitude;
- Remains calm, in control and good humored even under pressure;
- Proven networking, team building, organizational and communication skills;
- Highest standards of integrity, discretion and loyalty.

Required Skills and Experience

Education:

- Completion of Master's degree in environmental science/management/policy, finance, energy, economics or other relevant subject.

Experience:

- At least 7 years of relevant experience in policy analysis, advice and capacity development related to climate and/or development finance, public policy/finance/budget management and in engagement of the private sector/finance sector in climate related activities in developing countries;
- Expertise and experience in climate change and relevant sectors such as energy, forestry, agriculture, water and cross-cutting issues such as gender;
- Experience in programme design, monitoring and evaluation is an asset;
- Experience working for the Government of BiH and UN is an asset;

Chief Technical Advisor

Summary of key functions:

In consultation with the Project Manager (PM) specifically, his\her responsibilities consist of the following:

1. Provides technical input in development of policies, regulations and bylaws;
2. Takes part in development of technical and non-technical guidance documents for all studies and assessment undertaken as part of the project;
3. Support and oversees the design of an innovative financing mechanism
4. Undertake an assessment of the monitoring network requirements and provides technical assistance;
5. Provides technical support to municipalities to prepare and implement LCUD projects in public buildings and utilities; building municipalities capacity
6. Takes part in design and implementation of MRV system;
7. Provides technical input in waste collection route optimization and introduction of waste fee system
8. Takes a lead in selection of structural and non-structural measures;
9. Oversees implementation of non-structural interventions.
10. Monitor field activities implementation
11. Provides support in organization of external evaluation of the project;
12. Ensures efficiency in the provision of support to local stakeholders at municipal level;
13. Ensures that all project-related issues and risks are identified and reported in a timely manner and suggests corrective measures;
14. Co-ordinates the work of the Project Team, individual consultants and contracted companies;
15. Organizes and implements trainings (through tailored-made seminars and on-the-job) to employees of EFs' and relevant ministries to implement the National Investment Framework for Low-Carbon Public Buildings, along with organization of information workshops for relevant stakeholders about the mechanisms of innovative financing and on the roles and responsibilities of all parties involved.
16. Organizes and implements trainings (through on-the-job training and advisory service) to the employees of EFs and relevant ministries regarding various sources of climate and environmental finance and potential sources for additional capitalization of EFs and diversification of their revenues
17. Assist PM in development of annual work plans based on the multi-year work plan included in Annex A, including annual output targets to support the efficient implementation of the project.
18. Identify capacity needs of municipal departments/companies and provide necessary trainings;
19. Provides support to mainstreaming gender equality in the project implementation;

Required Skills and Experience:

- Degree in environmental science or engineering;
- Minimum ten years of professional experience in energy and environment field;
- Experience of the technical work in energy risk management and/or waste management;
- Experience of the development of low carbon interventions;
- Good analytical and problem-solving skills;
- Ability and demonstrated success to work in a team;
- Good communication skills and competence in handling project's external relations at all levels;

Administrative Assistant

Summary of key functions:

The Project Assistant will work under the direct supervision of the Project Manager and provide assistance to project implementation, the organization of training activities and financial management and reporting.

The Project Assistant will be responsible for the following duties:

1. Manage day-to-day Project operations, particularly with respect to the provision of technical services and support;
2. Assist the Project Manager in the implementation of technical and operational activities;
3. Takes responsibility for logistics and administrative support of project implementation, including administrative management of the project budget, required procurement support, etc.
4. Maintains up to date business and financial documentation, in accordance with UNDP and other project reporting requirements;
5. Organizes meetings, business correspondence and other communications with the project partners;
6. Ensures effective dissemination of, and access to, information on project activities and results and supporting the project outreach and PR activities in general, including keeping the project web-site up to date;
7. Supporting the project manager in managing contracts, in organizing correspondence and in ensuring effective implementation of the project otherwise;
8. Maintain the Project's files and supporting documentation for payments;
9. Undertake other administrative/ financial duties as requested by the Project Coordinator;
10. Other duties which may be required.

Required Skills and Experience:

- Secondary education; University degree is considered as an asset level;
- Demonstrated experience and success of work in a similar position;
- Good administration and interpersonal skills;
- Ability to work effectively under pressure;
- Good computer skills;
- Fluency in English.

Project Board

- A Project Board will be established at the inception of the project to monitor project progress, to guide project implementation and to support the project in achieving its listed outputs and outcomes.
- It will be co-chaired by UNDP and BiH UNFCCC focal point. Ministry of Foreign Trade and Economic Relations of Bosnia and Herzegovina, as the key governmental institution, will ensure that other governmental agencies are duly consulted and involved as per their mandate. Ministry of Spatial Planning, Construction, and Ecology of Republic of Srpska; Ministry of Environment and Tourism of Federation of BiH; Fund for environmental protection of FBiH; The Environmental Protection and Energy Efficiency Fund of RS; Ministry of Foreign Trade and Economic Relations of B&H will be active members of the Project Board.
- Other participants can be invited into the Board meetings at the decision of the Board.
- The Board will meet regularly (at least twice a year) to review project progress, discuss and agree on project work plans. One of the key tasks of the Board will be to ensure coordination and synchronization of central and local-level activities supported by the project. In this respect, the Board will serve as a platform for key project stakeholders and beneficiaries to regularly get together and design a joint strategy of work on the project.
- The final list of the Project Board members will be completed at the outset of project operations and presented in the Inception Report by taking into account the envisaged role of different parties in the Board. The Project Manager will participate as a non-voting member in the Board meetings and will also be responsible for compiling a summary report of the discussions and conclusions of each meeting.
- The day-to-day management of the project will be carried out by a Project Manager under the overall guidance of the Project Board.

Annex I: UNDP Social and Environmental and Safeguards screening procedure (SESP)

Provided separately

Annex J: Stakeholder Engagement Plan

138. The project will be implemented by UNDP, following Direct Implementation Modality (DIM), according to the SBAA between UNDP and the Government of BiH¹⁸, and as per the policies and procedures outlined in the UNDP Programme and Operations Policies and Procedures (POPP¹⁹). According to the SBAA between UNDP and the Government of BiH[2] signed on 7 Dec 1995, the project document shall be the instrument referred to as such in Article 1 of the SBAA. All references in the SBAA to “Executing Agency” shall be deemed to refer to “Implementing Partner”. According to the POPP: “**Implementing Partner**” is “the entity responsible and accountable for managing a project, including the monitoring and evaluation of project interventions, achieving project outputs, and for the effective use of resources.” In addition, an Implementing Partner may enter into agreements with other organisations or entities, known as “**Responsible Parties**”, which may carry out project activities and produce project outputs on behalf of the Implementing Partner. Responsible Parties are accountable directly to the Implementing Partner. In the context of GCF and UNDP Accreditation Master agreement, signed on 5 August 2016, UNDP is also the Accredited Entity.

139. In line with UNDP’s DIM modality, UNDP will be the Implementing Partner and will serve as the “Executing Entity” (using GCF terminology). The project will have two parallel implementation structures in FBiH and RS, respectively (reflecting the administrative structure of BiH). There will be four Responsible Parties: Ministry of Spatial Planning, Civil Engineering and Ecology of Republika Srpska and the Ministry of Spatial Planning of Federation of BiH respectively under Output 1.1 and 1.2, as well as the two Environmental Funds (FBiH and RS) under Output 1.2. The roles of Responsible Parties for implementing specific activities are further defined in Annex III. RPs’ abilities to manage cash has been assessed in accordance with the Harmonized Approach to Cash Transfers (HACT) – see Annex XIII.

140. **The Ministry of Foreign Trade and Economic Relations of BiH (MoFTER)** will be involved in its capacity as the State Ministry directly responsible for BiH’s participation in UNDP-assisted projects. In consultation with the Implementing Partner, MoFTER will designate its representative to serve on the Project Board. In its capacity of a Project Board member, and in line with PB’s mandate MOFTER will take part in a decision-making process (by consensus with other PB members) regarding:

- Approval of the annual budget and workplans under each Output to ensure that the project is executed in a timely manner and delays at Output level are minimized;
- Triggering the project interim and final evaluations and approval of the reports for submission to the GCF.

141. **The Ministry of Physical Planning of the Federation of Bosnia and Herzegovina (MPP FBiH):** the Federal Ministry of Physical Planning carries out the administrative, expert and other tasks falling under the competence of the Federation of BiH, governed by the following legal documents: “Law on Physical Planning and Utilization of Land at the level of Federation BiH” (Official Gazette of FNiH no 2/06) and “Law on Takeover of the Law on Housing Relations” (Official Gazette of FBiH no 11/98 and 38/98). The activities of the Ministry (including the mandate for the implementation of the relevant EU Directives for energy performance in buildings) are related to: physical planning and improvement; policy of land utilization at the Federal level; drafting, enforcing and applying the Physical Plan of the Federation of

¹⁸ http://www.ba.undp.org/content/dam/bosnia_and_herzegovina/docs/Lega_IFramework/SBFA.pdf

¹⁹ <https://info.undp.org/global/popp/ppm/Pages/Defining-a-Project.aspx>

²¹ http://www.ba.undp.org/content/dam/bosnia_and_herzegovina/docs/Lega_IFramework/SBFA.pdf

BiH, verification of the harmonization of the physical plans of the Cantons with the Physical Plan of the Federation of BiH; and supervision of appropriate institutions in this sector and other tasks as set out by the applicable legislation. MPP will be responsible for implementing, procuring, evaluation and contracting Activities 1.1.1, 1.1.3-1.1.7, as well as 1.2.1-1.2.2 in FBiH. A GCF Project Implementation Unit will be formed within the Ministry, consisting of the Ministry's staff delegated to provide assistance to GCF project activities, and one GCF Project Assistant appointed through the project.

142. The Ministry of Spatial Planning, Construction and Ecology of the Republika Srpska (MSPCE): the Ministry's mandate is to carry out "administrative activities and professional tasks related to the environment: protecting assets of general interest, natural resources, natural and cultural heritage; inspection and supervision in the field of urban planning, construction, utilities and environmental protection; cooperation with relevant ministries and institutions of the Federation of BiH; providing information about its work through the media and other means of information dissemination; and performance of other tasks in accordance with the law and other regulations of the RS and BiH". The Ministry also carries out the role of national UNFCCC Focal Point, as well as the National Designated Authority for the GCF. There are five sectors within this Ministry: the Secretariat of the Ministry, the Sector for Urban and Spatial Planning, the Sector for Construction, the Sector for Environmental Protection, and the Sector for Project Coordination, Development and European Integration. The Ministry will be a Responsible Party for implementing, procuring, evaluation and contracting Activities 1.1.1, 1.1.3-1.1.7, as well as 1.2.1-1.2.2 in RS. A GCF Project Implementation Unit will be formed within the Ministry consisting of the Ministry's staff delegated to provide assistance to GCF project activities, and one GCF Project Assistant appointed through the project.

143. FBiH Environmental Protection Fund (EF FBiH) was established by FBiH Law on Environmental Fund ("O.G. of FBiH", No. 33/03) as a non-profit public institution, which is a legal entity with rights, obligations and responsibilities stipulated by the Law on the Fund and the Fund Statute. The activities of the EF comprise fund-raising, inducement and financing of programme preparation, implementation and development and other similar activities in the field of preservation, sustainable use, protection and improvement of the state of the environment and use of renewable energy sources, especially: professional and other activities in relation to obtaining, managing and utilizing the proceeds of the Fund, liaising with regard to environmental protection financed from funds of other countries, international financial institutions and bodies, domestic and foreign legal and natural persons; providing expert services in terms of financing environmental protection; maintaining databases of programmes, projects and other similar activities in the field of environmental protection; inducing, establishing and achieving cooperation with international and domestic financial institutions and other legal and natural persons to the effect of financing environmental protection in line with the Federal Strategy for Environmental Protection, environmental protection plans adopted on the basis of the Strategy, international agreements to which Bosnia and Herzegovina is a party and other programmes and documents relating to environmental protection. The Fund is administratively, economically and technically capable of working with energy efficiency and already participates in the GED Project as the key partner institution. The Fund will be a Responsible Party to implement Activities 1.2.1 and 1.2.2 in FBiH. A GCF Project Implementation Unit will be formed within the Fund consisting of Fund's staff delegated to provide assistance to GCF project activities, and one GCF Project Assistant appointed through the project.

144. The Fund for Environmental Protection and Energy Efficiency of RS was founded by the Law on the Fund and Funding of Environmental protection ("O.G. of RS", No. 117/11). The Fund conducts all activities in connection with collecting of funds and financing implementation of programmes, projects and similar activities in the field of conservation, sustainable use, protection and improvement of the environment, and on energy efficiency. The Fund is a legal entity with public authority. The Ministry for the Urban

Planning, Civil Constructing and Ecology of RS conducts supervision of the work of the Fund. The Fund is managed by a Management Board, which consists of three members – the Ministry of Energy, Industry and Mining, the Ministry of Spatial Planning, Civil Engineering and Ecology, and the Ministry of Water Management, Agriculture and Forestry of RS. It is audited by auditors appointed by RS, while the annual results and planned activities are adopted by the Government of RS. The Fund is administratively, economically and technically capable of working with energy efficiency and already participates in the GED Project as the key partner institution from July 2016. The Fund will be a Responsible Party to implement Activities 1.2.1 and 1.2.2 of the project in RS. A GCF Project Implementation Unit will be formed within the Fund consisting of the Fund's staff delegated to provide assistance to GCF project activities, and one GCF Project Assistant appointed through the project.

145. Proposed implementation arrangements have been made in view and taking the following factors in the account:

- Complex administrative structure of BiH, which is most probably the world's most complicated system of government; even the Presidency of BiH consists of three members.
- Complex institutional structure in the public building sector whereby buildings fall under hundreds of different jurisdictions (as shown in Table 1);
- Complex policy and financing framework for public buildings;
- Ambitious project objectives, which include implementation of large-scale investment programme for public buildings EE retrofits along with policy reforms essential for market transformation.

146. Further, the proposed implementation structure is also a result of extensive stakeholder consultations held at project development stage: at the Concept Note stage only two RPs were envisaged, but subsequent consultations revealed the need to expand the structure, as currently proposed. It was simply not possible to identify one RP in each entity, which would have sufficient mandate and capacity to deliver on the envisaged scope of policy and investment support on its own, let alone there is no such entity in BiH with sufficient capacities and power of authority to ensure effective dialogue, coordination and synchronization of tasks between the two entities – the primarily rationale for chosen UNDP as the lead Implementing partner and DIM as the implementation modality. The rationale for selection of individual RPs is further detailed below.

147. Output 1: Policy de-risking: The Ministry of Spatial Planning, Civil Engineering and Ecology of Republika Srpska (MPUGERS) and the Federal Ministry of Physical Planning (FMPU) will be the lead Responsible Partners for their respective entities, RS and FBiH, which is fully in line with their mandate and responsibilities for overseeing the implementation of the entities' Laws on Energy Efficiency and EE Action Plans. UNDP, as the project Implementing Partner will take the lead on coordination and synchronization efforts. In view of its neutral status, it is best positioned to play an honest broker role in this highly politically sensitive process.

148. Output 2: Financial de-risking and Investment Support: In addition to MPUGERS and FMPU, two additional Responsible Partners will be involved in this output, the Environmental Funds (EFs) of RS and FBiH. Their involvement, though originally not foreseen at CN stage, is critical due to their leading role as the centers of domestic environment and climate finance and the source of funds for EE retrofits both during the project, but most importantly after the project end to ensure sustainability and further scaling-up of the investment. Also important is that the EFs have mandate (but are in need of further capacity strengthening) to operate and blend a range of financial instruments, including non-grant instruments, such as loans and guarantees. Therefore to ensure stated project goal of market transformation and paradigm shift in the financing modalities for EE public retrofits from grants towards

non-grant, EFs' participation as EAs is deemed as absolutely essential. The role of UNDP as Project Implementing Partner under output 2 will be to ensure quality design and monitor implementation of the proposed Financing Framework by EAs, as well as to aggregate and widely disseminate the resulting knowledge and experience. Such centralized manner of implementing these tasks is most effective (and cost-effective).

149. In view of the above and in line with UNDP POPP, the Direct Implementation Modality (DIM) has been chosen. This would enable the project to a) have central politically neutral Project Management unit responsible for implementation of centralized tasks, such as support to EMIS implementation, knowledge management, nation-wide policy development, design and monitoring of the National Framework for Low-Carbon Investment in Public Buildings, as well as over-all project coordination. This would not be possible under the National Implementation Modality, which would call for set-up of two PMUs in each entity and ultimately be more costly and less effective.

150. Therefore, UNDP with Direct Implementation Modality will assume full responsibility and accountability for the overall project management, including monitoring and evaluation of project interventions, achieving of project output and specified results, the efficient and effective use of resources, and reporting to GCF.

151. Due to above listed arguments, UNDP will use Responsible Partners for the implementation of project outputs and activities. The Responsible Partners will be accountable to UNDP and their engagement and status of responsible partners is conditioned by the proof of adequate administrative and financial management capacities and adequate performance regularly risk-based monitored and assured (risk based management approach) in line with policy on Harmonized Approach to Cash Transfer (HACT) to implementing partners. Aside from the requirement of HACT policy related to assurance activities, CO BIH applies very engaged support to Responsible Partners under DIM modality which entails regular quarterly monitoring and verification of all the activities/actions/financial reports, as well as knowledge sharing and training of staff within Responsible partner's institutions.

152. All Responsible Partners have extensive prior experience with implementing similarly complex EE projects, including international ones (with SIDA, EBRD, WB, UNDP, UNEP, GIZ, GEF and others). Both spatial planning Ministries (FBIH and RS) are also Project Implementation Units for WB's EE loan – sovereign loan to finance implementation of public building retrofits, as well as Implementing partners (together with Environmental Funds of FBIH and RS) within UNDP's US\$ 11.2 million Green Economic Development project, as well as GEF's climate change mitigation and UNFCCC/National Communication and GEF's Special Climate Changes Fund for climate change adaptation projects. The Environmental Fund of FBIH successfully implemented in the period between 2013 to 2016 a total number of 327 projects in the area of air protection, water management, waste management and energy efficiency with total value of 12m USD while the Environmental Fund of RS on its last investment cycle alone, from 22nd March 2017, assured the financing of 1.5m USD worth EE and environment related (waste and water management) projects. From 2011 to 2016 the FBIH Ministry implemented and financed a total number of 305 projects in the area of EE, disaster risk reduction, protection of national monuments, worth in total 9.2m USD. Moreover, from 2015 to 2017 a total amount of 8.3m USD of WB's EE loan has been implemented by the FBIH Ministry. The RS Ministry was also the Implementing Agency of WB's 42.5m USD loan for solid waste management in BiH project. Operational capabilities of selected Responsible Partners' have been assessed and confirmed by UNDP via Harmonized Assessment for Cash Transfer (HACT).

Annex K: Gender Analysis and Action Plan

“SCALING UP INVESTMENT IN CLIMATE-SMART PUBLIC BUILDINGS AND INFRASTRUCTURE” IN BOSNIA AND HERZEGOVINA

I. INTRODUCTION

The **Gender Analysis** provides an overview of the gender situation in Bosnia and Herzegovina and highlights gender issues that could be relevant for the proposed project. The assessment is based on the available data from studies conducted by the Government of BiH, donor agencies and other development partners. This analysis further underpins the **Gender Action Plan** presented at the end of this document. The Action Plan entails a set of activities to be implemented by the proposed project with the purpose of fully integrating solutions to the constraints towards gender equality and women economic empowerment within the scope of the project.

II. ENERGY EFFICIENCY IN BUILDINGS IN BOSNIA AND HERZEGOVINA

Bosnia and Herzegovina (BiH) is a highly decentralized country comprising 141 municipalities located in two entities, Republika Srpska (RS) and Federation of Bosnia and Herzegovina (FBiH), and a separate administrative unit - Brčko District. The country experiences very unique demographic challenges: its urban population, estimated at 80% of the total²⁰, has nearly doubled in just a few years as a result of mass wartime migration from rural to urban areas.

Buildings are responsible for large (30-40%) share of urban GHG emissions in BiH. Dated back to the 2nd half of XIX century, most of BiH building stock is characterized by poor heat-insulated characteristics, which have emerged as result of lack of regulations governing thermal performance of buildings. Most buildings have no or insufficient insulation thickness. Having in mind the age of these buildings (in average 40 years old) and the manner of their maintenance (mostly poor), specific annual energy consumption for heating in this sector is high, i.e. around 200 kWh/m² in residential buildings, 240 kWh/m² in educational buildings, and up to 600 kWh/m² in health sector.

According to 2nd National Communication to UNFCCC, there exist a high potential to reduce energy use and GHG emissions of up to 80% by improving thermal performance of building envelope (thermal insulation of roofs, exterior walls, floors, better sealing, replacement of windows) and replacing HVAC systems and biomass/coal heat boilers with more efficient ones. For example, it was estimated that application of the above-mentioned measures only in the public buildings in the City of Banja Luka could yield energy saving of 36,000 MWh and GHG emissions reduction of 1,000 tCO₂/year²¹.

III. BACKGROUND ON GENDER RELATED NATIONAL POLICIES AND GENDER EQUALITY PROFILE IN BiH

Bosnia and Herzegovina has set up the legislative and policy frameworks for gender equality and has become a regional leader in that area²². Important legal steps have been taken with Conventions,²³ Laws²⁴ and Gender Action

²⁰ 2nd National Communication of BiH to UNFCCC. Available at <http://unfccc.int/resource/docs/natc/bihnc2.pdf>

²¹ Banja Luka City Sustainable Energy Action Plan (SEAP), 2012

²² Gender Country Profile for Bosnia and Herzegovina, European Commission, Hughson, Marina, June 2014.

²³ Convention on the Elimination on all forms of Discrimination against Women (CEDAW), Istanbul Convention and corresponding Action Plan on the Implementation of UN Security Council Resolution 1325 on Women, Peace and Security.

²⁴ Law on Gender Equality, The Election Law of BiH, Anti-Discrimination Law in 2009.

Plans promoting gender equality, strategies adopted to reduce domestic violence, and institutional²⁵ mechanisms set up to mainstream gender. However, a genuinely enabling environment requires a sharper focus on implementation of all policy instruments and a corresponding shift of paradigm from equality of rights to equality of results. The Gender Agency of Bosnia and Herzegovina states that 53 per cent of women have suffered some form of gender-based violence, while only 10 per cent of them have received support through the victims and witness support offices, with Roma women and girls and LGBT population being the most vulnerable groups. Furthermore, 67 percent of working age women do not participate in the labor force, which increases their economic dependency and diminishes their role in public life. Often, women bear the "double burden" of unpaid housework, and caring for children and the elderly as well as paid work. The war has also led to an increase in households headed by women, with 78 percent of them being war widows. Survivors of conflict-related gender-based sexual violence are among the most marginalized societal groups since they have not benefitted from adequate access to justice, compensation, and integral reparation. Gender intersects with age, education and employment status, rural/urban divide, disability, ethnicity, as well as complex post-conflict masculinities in the country²⁶.

Political Participation of Women in BiH

There are 3.282.581 registered voters in BiH (2.039.316 in FBiH and 1.243.265 in RS) out of which 50,8% are women²⁷. Yet, women continue to be underrepresented at all levels of political and public life. During the last general elections in 2014- in line with the standard praxis - the political parties abided by the Elections Law in terms of quota compliance when it comes to the candidate lists, but not with the mandates allocated to women. To illustrate, out of more than 300 female candidates enlisted for the BiH Parliamentary Assembly, only 10 were assigned with the mandates (6 directly and 4 by compensatory mandates). Out of total 152 ministerial positions in BiH at all levels, there are only 23 women, while less than 20% women are represented in parliaments. Only two women are represented at the Council of Ministers (there were none in the previous mandate), and all the three BiH Presidency positions are (and have always been) held by men representing the three constitutive people. Out of 183 registered political parties in BiH, not a single one is headed by a woman. Women are also under-represented at the legislative power at all levels, at 17.1%, which is in the obvious breach with the Gender Equality Law.

Out of 141 Municipalities, only 5²⁸ or less than 4% of mayors are women. A recent study²⁹ has shown that investments in female-run municipalities Mrkonjić Grad increased by 40,95%, in Kalinovik the unemployment rates have shrunk by 13,67% due to Mayors pushing for strategies and projects targeting employment of women and youth, and introducing and improving the day-care system, while the Mayor of Visoko invested 11.5 million BAM into local community development.

Gender Based Violence

A research³⁰ on prevalence of violence against women in Bosnia and Herzegovina, conducted on a sample of 3.300 women aged 18 or over in both entities, found that 47,2% of women have experienced some form of violence during their life-times, most of whom have not reported the violence. Mostly, violence is inflicted by a partner, and it occurs

²⁵ Gender Equality Agency of BiH and Gender Centers of the FBiH and RS.

²⁶ Blagojevic, Marina, 2009.

²⁷ General Elections Statistics 2014, Agency for Statistics of BiH.

²⁸ Visoko, Doboju Jug, Mrkonjic Grad, Kalinovik, Novi Grad.

²⁹ Infohouse, 2016.

³⁰ Gender Equality Agency of BiH and Entity Gender Centers, in cooperation with statistical institutions and the support of UNFPA and UN WOMEN in 2013.

most frequently in the rural areas. However, the more educated the woman, the less likely violence is to occur.³¹ From a total number of trafficking victims in BiH, more than 70% are women, and contrary to the wide belief- more than 95% are BiH citizens³². In terms of legislation, the BiH Gender Equality Law (2003)³³ provides adequate legal framework for creating conditions for equal opportunities of women and men in general. The country has also adopted the Law on Protection against Family Violence, as well as a National Action Plan for ending violence against women and trafficking of women. In addition to the gender specific laws, the state level Law on Prohibition of Discrimination on different grounds, employment and social protection laws offer de jure framework of equal opportunities. In July 2015, Council of Ministers adopted the Framework Strategy for Implementation of the Istanbul Convention about prevention and fight against violence against women and domestic violence 2015-2018- but little is done on its implementation.

Furthermore, FBiH continues to breach the Law on Protection Against Domestic Violence by failing to co-finance the Safe-Houses with the Cantons at the 70:30% ratio. Since 2008, the financial support to the Safe-Houses never exceeded 200.000 BAM annually which covers 10-15% of costs. This is why the two Safe-Houses in Mostar area have recently been closed. In addition, there has been no progress in meeting the CEDAW Committee recommendations vis-a-vis providing adequate support, protection and rehabilitation to CRSV survivors.

Economy

BiH has the lowest economic activity rates of women in the region with only 33% of the working age women being economically active. According to the official statistics, unemployment rate for women is at 31,2%³⁴ (compared to 25,2% for men). The last census uncovers that out of 89.794 illiterates in total, the vast majority or 77.557 are women.³⁵ Adding a new dynamic to this economic inactivity and invisibility of women is the force of “re-traditionalising” which is being reported particularly in rural areas. The overall high levels of unemployment among women in BiH exacerbate economic dependency of women and diminish their role in public life. The employed women in BiH are predominantly employed in the **field of services (approx.60%)**, which is characterized by scarce job security and least benefits and pay. 23% of women are employed in agriculture, and 16% in industry. 7.9% of women are the unpaid family workers (compared to 1.7% for men).³⁶

The following gender disaggregated data will underline the percentage of women in the field of services³⁷:

Female employees:

In general, female employment in **services sector** in BiH according to Labor force surveys is:
in 2014 -> 60,0%

31 http://www.bhas.ba/tematskibilteni/TB_zene_i_muskarci_bh_2015_eng.pdf.

32 Source: Ministry of Security of BiH.

33 The Gender Equality Law was amended in 2009 to meet the EU and the Council of Europe standards. A comprehensive Anti-discrimination Law was adopted in 2009; it covers the sectors of employment, social security, education, goods and services, and housing. The State-level Election Law requires that the election candidate lists contain at least 40% women. A range of strategies define the measures that authorities should take, in cooperation with civil society organizations, in order to prevent and respond to violence against women and girls: BiH Strategy for preventing and combating domestic violence 2009-2011; Strategy for Combating Domestic Violence in Republika Srpska 2009-2013; Strategic Plan for the Prevention of Domestic Violence for the Federation of BiH 2009-2010; and the 3rd National action plan for combating trafficking in human beings for 2008-2012. The Funding Mechanism for the Implementation of the Gender Action Plan (FIGAP) became operational in 2010, and in the same year BiH became the first country in the Western Balkans to adopt the Action Plan on the Implementation of the UN Security Council Resolution 1325 on Women Peace and Security (2010 – 2013).

34 BiH Agency for Statistics, 2016.

35 <http://www.popis2013.ba/popis2013/doc/Popis2013prvolzdanje.pdf>

36 Labour Force Survey, 2014.

37 Reference documents: Gender assessment “Women and Men in BiH” and Labor force survey

in 2015 -> (not accessible)

in 2016 -> 64,5%

Services sector includes inter alia, public administration, defense, education, health and social work activities. In education, female employees at the beginning of the school year 2014/2015 varies, as follows:

98% of female educators in pre-school institutions

71% of female primary school teachers

60% of female secondary school teachers and associate and

43% of female teachers and assistants in higher education.

In public administration, the female employees as civil servants in the institutions of BiH represents 52,5% (state on 30th June 2015).

Female users

Pre-school, primary and secondary education in BiH in 2014/2015 (data from attached pdf file, p. 23 and excel file).

48% of female users in pre-school education

49% of female users in primary education

50% of female users in secondary education

Students in institutions of higher education in BiH in 2014/2015 :

56% female students

Per last census in BiH in 2013, females are represented as of 50,9% of total population.

The total number/percentage of female users/employees in BiH is therefore situated between 64,5 (employees) to 50,9% (users). Since the users will have greater weighting factor (out of a total amount formed by users and employees), the total % of female users/employees should lean more towards 51%.

Energy poverty has gender dimensions: Men and women have different energy dynamics such as roles in household, decision-making areas, energy needs, coping mechanisms. For example, women are generally more vulnerable to health hazards from pollution generated by fuels such as coal, wood, and charcoal.

Energy efficiency and energy service delivery in public building represent a national priority as highlighted in the Nationally Determined Contribution (NDC) under Paris Agreements, whereby BiH explicitly recognizes the potential of public buildings for GHG emissions reductions. Improvements of energy performance in public buildings and energy service delivery will benefit mostly women. The largest category of users and occupants of public buildings are women (approximately 60% as indicated by data generated by UNDP's Energy Management Information System-EMIS which covers 2100 buildings out of 5000 buildings across the country).

Regarding women's economic empowerment goals, steps were taken to integrate these goals in various policies, notably the Gender Action Plans BiH (2009-2013 & 2013-2017) and Financing Mechanism for the Implementation of the Gender Action Plan (FIGAP). The Employment Strategy of BiH and Employment Strategies of the FBiH and RS focused on activating women through labour market measures. Despite legislative, policy and institutional measures that are put in place- there is a widening gender gap in socio-economic indicators. Also, the existing employment and women's empowerment policies do not adequately reach women with vulnerable characteristics, such as low education, residing in remote/rural areas, and saddled with the child and family care responsibilities.

The maternity rights of women are not regulated by a framework law, but rather with the set of entity, cantonal and Brčko District laws. In FBiH these rights are dependent of place of residence and whether the employer is private or public sector- creating additional patterns and layers of discrimination. BiH has the lowest fertility rate globally³⁸. Out of 30.268 registered live births in 2014, there were 14.671 girls and 15.597 boys³⁹- which suggest selective termination of pregnancies based on gender.

Women continue to be less employed and less paid when compared to men. Reportedly during job interviews women are being asked about marital status and plans for having children, and multiple reports on women being fired upon disclosure of pregnancy are often not being legally pursued due to a lack of financial means for lawyer charges.

The media

Women are less represented than men in the media, stereotypes are prevalent and the media fails to address issues of gender awareness and women's rights (OECD, 2014; USAID, 2012). OECD (2014) notes that women are rarely consulted as "experts". More generally, EBRD (2014) contends that despite a degree of independent pluralistic media operations in BiH, more could be done to ensure tolerance, freedom of expression and minimization of media polarization along political and ethnic lines. A self-regulated press code for printed media exists that contains provision to develop gender equality awareness and human rights (AGEBiH, 2014). A number of legal reforms are underway to harmonize various media laws to ensure equal gender representation in leading positions of media, employment, balanced interests in programming and the elimination of gender discrimination and stereotyping (AGEBiH, 2014). As noted above, USAID (2012) is providing a range of support to strengthen performance of the media sector regarding gender issues and women's empowerment.⁴⁰

IV. GENDER ISSUES IN ENERGY EFFICIENCY IN RELATION TO WOMEN ACCESS TO FINANCE AND WOMEN ECONOMIC EMPOWERMENT

The Sustainable Development Goals (SDG) include energy security for all, health, sustainable livelihoods, for women and men. With SDG 5 aiming to achieve gender equality and empower all women and girls, low carbon development approach must take into consideration the interplay between techno-economic and social-political aspect, by taking into account societal change, such as institutional settings (ie care economy), gender-biased power relations, and cultural values.

Despite notable progress being made towards achieving gender equality in Bosnia and Herzegovina, gender stereotyping and discrimination against women remain widespread and much remain to be done to overcome ingrained socio-cultural attitudes and behaviors. While gender mainstreaming is integrated into a range of national policies, legislation, institutional structures and social and economic strategies, significant barriers still exist which limit women's economic opportunities, equal participation in public life and decision making and exercise of human rights.

There are no explicit examples of government led or donor sponsored assessments in energy sector, particularly in energy efficiency in buildings that are structured around measurements of the benefits to women, in particular equal participation and women economic empowerment opportunities that women benefit from projects, policies or

38 BiH shares the last, 210th place globally with Macau, Portugal, Korea and Taiwan. Population Reference Bureau, 2015

39 BiH Agency for Statistics, 2016.

⁴⁰ Priority gender issues in BiH, Georgia, Moldova, Serbia and Ukraine-with consideration to gender and governance"-June 2016 <http://www.gsdrc.org/wp-content/uploads/2016/07/HDQ1372.pdf>

programmes. Many assessments show however the limited opportunities women have to entrepreneurship and access to finance.

EBRD's Strategy for Bosnia and Herzegovina is aiming to "develop and implement projects in relevant sectors and areas in Bosnia and Herzegovina, as it is a country with large gender gaps in the area of access to finance, labour practices and employment. The Bank will endeavor to work with its clients in the banking sector to identify ways, where appropriate, to support women entrepreneurs in terms of facilitating their access to finance and supporting their business activities. This engagement will also, where possible, ensure a link with services provided by the Bank's Small Business Support (SBS) programmes". With regard to entrepreneurship and access to finance EBRD Strategy for BiH shows that according to BEEPS 2009, 58 per cent of female owned firms applied for loans compared to 56 per cent of male owned firms and 51 per cent of the female managed firms applied for a loan compared to 57 per cent of male managed firms. 11.5 per cent of loan applications submitted by female owned firms were rejected compared to 17.4 per cent of applications submitted by male owned firms. The gap is bigger when looking at firms with women top 20.

The 2015 World Bank's report on gender disparities in BiH⁴¹ concludes that the difficulties facing women wishing to start their own business include limited skills, confidence and a difficult business environment. While the State does furnish a few programs and financial resources to support female entrepreneurship, these are not always implemented and utilized. In 2008 for instance, women used a mere 4% of resources allocated by the government for women entrepreneurs in FBiH. Given women's limited training and smaller size of business, they find it more difficult to deal with government processes such as taxation, licensing, and various levels of the bureaucracy⁹⁴. Further, BiH's high level of decentralization and fragmentation of government renders it more complex for entrepreneurs in general, and women in specific to undertake such projects.

IV. RECCOMENDATIONS

Equal participation of both women and men during project proposal design consultations.

The involvement of women and men at the design stage is a first important step that will allow the discussions of the problems and solutions addressed by the project proposal with clear indicators for the measurement of the benefits to women. Similarly, the observation of a 50% target for women's participation in the project management structure and technical committees will be recommended and it is based on UNDP best practices applied in all its interventions. In this way, the project will seek to capitalize on the know-how and experience that women could provide to the process. Not assuming that such processes are gender neutral will lead to utilizing female perspectives and leadership in BiH for promoting safer, cleaner, and healthier cities. Empowering women, therefore, can be the key to transformational shift towards climate smart public buildings and infrastructure, while pursuing traditional approaches is likely to reinforce the existing inequalities.

Gender considerations addressed during the project's implementation

Insufficient inclusion of women in all stages of project implementation is likely to result in gender-blind planning, financing, execution and implementation. This is why, the project proposal will reflect the gender considerations in its objectives, activities, results, performance/impact indicators, and operational costs, and will "provide the expected environmental, social and health, and economic co-benefits.. Furthermore, the proposed project will be expected to identify opportunities when women in particular can act as agents of change, therefore improving the overall effectiveness of the proposed intervention. Engaging women as active stakeholders in project processes and

⁴¹ 7992483659/pdf/97640-ESW-P132666-and-P152786-Box385353B-PUBLIC-BiH-Gender-Disparities-in-Endowments.pdf

using them as agents of change is important because women have noteworthy experience and know-how as a result of their multiple societal roles - they have critical insight, perspectives and knowledge to significantly support project processes. In practical terms, this project will, crowdsource the ideas of women throughout the project cycle, as well as promote parity and equitable inclusion of women while cooperating with the partners - so that they are adequately represented and their voice is heard.

Gender specific qualitative assessments

During the project implementation, gender specific qualitative assessments will be grounding the performance measurement and assessment of the gender specific benefits attained by the project. The results are expected to be reflected in the annual Project Implementation Report and interim independent evaluation and Final Independent Evaluation reports. Sex disaggregated data collection, gender sensitive project logical framework and monitoring

Gender mainstreaming will be applied as the primary method for integrating a gender approach into environment and development efforts. In practice, gender mainstreaming means deliberately giving visibility and support to both women's and men's contributions individually, rather than assuming that both groups will benefit equally from gender-neutral development interventions⁴². Within this particular project context, gender mainstreaming implies gender sensitive project logical framework, identifying gaps in equality through the use of sex-disaggregated data, developing approach and resources to close those gaps, monitoring the results, and finally, being accountable for outcomes that promote gender equality.

The project will ensure both that the sex disaggregated data is collected, and also that data collection process is gender-sensitive. Also, the logical framework of the project will include gender disaggregated indicators that can ground the gender assessments conducted within the purpose of the proposed project and will reflect the benefits to women in terms of participation and economic empowerment e.g. the access to capital for energy efficiency retrofits, number of women and men with strengthened skills in green jobs, number of women and men users of the retrofitted public buildings, number of women and/or women associations acting as agents of change for the transition to sustainable energy sources, number of women led SME's access to financing mechanisms promoted by the project;

Similarly, monitoring and evaluation activities will enlist a gender responsive approach and gender sensitive data collection. The project will report, reflect, codify and disseminate best practices and the evaluative knowledge generated by the project to inform and influence the government and other development partners approach to future programs and projects in making them progressively more gender responsive.

⁴² UNDP and GGCA. Gender and Energy. <http://www.undp.org/content/dam/undp/library/gender/Gender%20and%20Environment/PB4-AP-Gender-and-Energy.pdf>

PROPOSED GENDER ACTION PLAN

Objective	Action	Indicator	Target	Timeline	Responsible Institution
Component 1. Policy de-risking: Addressing non-financing barriers to investment in climate smart buildings and infrastructure					
Activity 1.1.6 Awareness raising among buildings' end-users					
Strengthened municipal and cantonal level institutions, human resources, awareness and knowledge for gender sensitive climate smart policy making	Active involvement of women in capacity building and awareness seminars	Number of public sector technical staff and policy makers (% of women) trained	200 (30% women)	EoP (end of project)	Municipal and cantonal government representatives
		Number of social and gender responsive measures (including targeted measures that facilitate energy connection for women headed households and vulnerable households) included in the SECAPs supported by the project	20	EoP	UNDP project
		Number of updated gender responsive SECAPs supported by the project	40	EoP	
Increased understanding of the benefits of the climate smart solutions at community level	Organization of a nationwide PR campaign consisting in a series of events, designed around different gender needs and roles, responsibilities and women's access to and use of energy	Number of PR events (including media broadcasts) highlighting the challenges and opportunities to address the needs of women and men in relation to energy service and use	40	EoP	UNDP project team Municipal and local institutions
		Number of participants trained (30% women) in clean energy solutions in building and in maintenance of the energy efficient	500	By end of yr.2	Women led NGOs identified during the project implementation

	activities and technologies installed in events and public buildings				
		40			
		Number of PR/awareness raising events organized jointly with women led NGOs	20	EoP	
	Work with women and women led NGOs to act as “drivers of change”	Number of awareness raising seminars where climate smart gender sensitive solutions are presented and discussed		EoP	
	Trainings for journalists and media in gender sensitive climate change issues and women role for resilient communities				
	Provide child care facilities during the training events to stimulate women participation				
Strengthened capacity of women entrepreneurs and women led SMEs to participate in the development of green markets	Awareness/training sessions targeting women entrepreneurs	Number of private sector representatives familiarized with the climate smart solutions (%of women)	200 (30%women)	EoP	UNDP and implementing partners
	Hiring of gender expert for the integration of distinct gender aspects in the training modules	Number of women led SME’s involved in climate smart market solutions	20	EoP	
		Number of women trained in green jobs (e.g. energy auditors; building inspectors; architects trained in green resilient public infrastructure, biomass boiler manufacturing/maintain	150	EoP	

ace; biomass based fuel production etc))

Component 2 Financial de-risking & Investment support: Addressing financial barriers to climate smart investment in buildings and infrastructure

Act.1.2.1 Implementing National Framework for Low-carbon investment in public buildings

Improved access of women SME's financing schemes	Inclusion of gender considerations and social dimension in the guidelines of the proposed financial mechanisms and financing criteria of the EFs	Number of women led SMEs financed under the project's financing schemes (including IFI partner)	20	EoP	Environmental Funds (EFs) and responsible ministries at entity level
		Number of public buildings targeted by the project financing scheme, used by vulnerable groups (e.g. retirement homes, schools, kindergartens, healthcare centers and social care centers)	200	EoP	IFI project partners Project team
Increased employment opportunities in energy efficiency sector	Targeted involvement of women in the jobs created under the building retrofits	% of men and women representation in the number of jobs created	40% women	EoP	UNDP project
Improved access to affordable warmth and buildings with lower energy intensity	Ensure that benefits are equally shared between men and women user of the retrofitted buildings	Number of women beneficiaries (employees or utilizers) of the retrofitted public buildings	92,000	EoP	UNDP project

Monitoring and Evaluation / Reporting on gender specific indicators

Objective	Action	Responsible institution
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<p>Gender sensitive project best practices and evaluative knowledge</p>	<p>Ensure the set-up of the proper mechanism to monitor and report on gender impacts</p> <p>Gender technical expert to support gender sensitive M&E and train project staff and partners (e.g. EFs staff) on gender based monitoring and evaluation</p>	<p>UNDP project and partners</p>
	<p>Dissemination of gender assessments, best practices and evaluative knowledge captured during the project implementation</p>	<p>UNDP office and UNDP Istanbul Regional Hub</p> <p>Ministries and Environmental Funds participating in the project</p>

PROPOSED GENDER BUDGET- Bosnia and Herzegovina

Scaling-up Investment in Climate-Smart Public Buildings and Infrastructure

Type of Supply	Category	US\$	Activity	Description of procurement	First year % of disbursement
Individual Contractor (Gender expert)	71300-Local consultants	15,000	Integration of gender aspects in training modules and guidelines of the proposed financial mechanisms; delivery of specific gender related training activities	Individual Contract; UNDP procurement rules will apply	30%
Printing of gender training materials	74200- Audio Visual&Print Prod Costs	3,000	Printing of gender training materials to be delivered during the training courses, printing of lessons learned and best practices etc	Services: UNDP Procurement rules will apply	30%
Roundtables with Women led NGOs, dedicated awareness sessions to women entrepreneurs etc.	75700- Training, workshops, conferences	5,000	Roundtables with women led NGOs to act as “drivers of change”	Services: UNDP Procurement rules will apply	30%
Total Estimated Procurement Plan		23,000 US\$			

Annex L: UNDP Risk Log

Selected Risk Factor 1			
Description	Risk category	Level of impact	Probability of risk occurring
Complex administrative and governance structure in BiH coupled with low capacities of public authorities, in particular at local level, poses risks related to the ability of relevant bodies to undertake and enforce required policy and regulatory changes, in particular as far as the creation of an enabling environment for private investment in low-carbon public buildings is concerned.	Policy and regulatory	High	High
Mitigation Measure(s)			
<p>Risk mitigation: Design of the project strategy and its implementation structure have been informed by the need to take due account of the BiH's administrative complexities and the need to address policy and regulatory risk. Several activities are proposed to address this risk, as follows:</p> <ul style="list-style-type: none"> - Activity 1.1.1 will support preparation, upgrade and adoption of SECAPs as a key policy instrument which establish specific commitments at the local level for GHG emission reduction, energy saving and renewable energy application in the public sector. SECAPs are also important to ensure availability of local co-finance for the project as budgetary allocations at local level are directly linked to SECAP investment priorities. - Activity 1.1.2 will enable the creation and implementation of a comprehensive energy management system in the public sector which covers different jurisdictions and will enable the enforcement of key provisions of the Law(s) on Energy Saving of both FBiH and RS with regard to creation of building registry, monitoring energy use and prioritization of investment in EE-RE at entity-level. Through this activity, the project will also strengthen capacities of the two EFs to deliver on their mandate (in line with the EE Law) to implement entity-level energy management systems (i.e. to monitor and analyze energy use at entity-level and prioritize public investment) and therefore effectively overcome existing barriers that concern fragmentation and lack of clear authority over EE-RE promotion and financing in the public sector. - Activity 1.1.7 will support the development and promote the adoption of a comprehensive policy and regulatory package aimed at creating a nationwide harmonized and coordinated Investment Framework for Low-Carbon Public Buildings. The project will work with and support both entities, FBiH and RS separately at first, to formulate a policy design that is appropriate for each entity. The project will also work with MOFTER and facilitate inter-entity dialogue and exchange of relevant experiences and approaches. The fact that this activity will be directly implemented by UNDP will additionally help mitigate the risk because of UNDP's impartiality and ability to negotiate and ensure harmonized approaches between the entities, as has been demonstrated in the course of the project design, which received the full support of stakeholders, at both entity level and local levels across BiH. The following specific policy and regulatory provisions will be worked out to address existing barriers to private investment from the policy angle: <ul style="list-style-type: none"> 153. <ul style="list-style-type: none"> o Regulations to enable implementation of energy-performance contracts in the public sector to open up market opportunities for private investment; 			

- Adoption of a harmonized and uniform approach to allocation of public financing for low-carbon investment in public buildings
- Building on the above two essential elements, development and coordinated implementation of BiH's Investment Framework and Programme for Low-Carbon Public Buildings.

154. The project will be implemented based on UNDP Direct Implementation Modality (DIM) whereby UNDP will take lead and ensure over-all project implementation and direct oversight and accountability of Responsible Partners, as well proper coordination between the entities and between national and sub-national activities. UNDP will closely monitor the performance of Responsible Partners (on a quarterly basis) and will take corrective measures in case of non-performance or slow delivery, for example, take over responsibility for delivery of specific outputs.

155. Responsible partners will be accountable to UNDP and their engagement and status of responsible partners is conditioned by the proof of adequate administrative and financial management capacities and adequate performance regularly risk-based monitored and assured in line with HACT policy. The assurance plan at the CO and project level is prepared on an annual basis for all HACT assurance activities, while at the project level CO BiH applies very engaged support to Responsible partners under DIM modality which entails regular quarterly monitoring and verification of all the activities/actions/financial reports. The substantive and financial reporting from responsible partners is defined within the legal instrument - Letter of Agreement that UNDP will sign with each RP individually. The minimum requirement for substantive and narrative reporting is on quarterly basis.

156. Recognizing the inevitable delays due to the need to conduct extensive coordination, the project has been designed for the total of 8 years (instead of 5-6 years for the operations of similar size). This is also to allow Responsible Partners to start slow and progressively increase their delivery towards the project end.

157. Finally, capacity building and learning-by-doing approach has been embedded in project design to enable all partners to gradually develop their internal capacities and skills for EE finance, project appraisal, etc. Much simpler and faster alternative would have been for UNDP to deliver the project on its own, as it has demonstrated on numerous occasions before in BiH in the context of EE retrofit or post-flood assistance implementation. However, the sustainability effect of such operations would be limited and the paradigm shift - unlikely.

Selected Risk Factor 2

Description	Risk category	Level of impact	Probability of risk occurring
Local municipal government lacks the institutional and individual capacities, knowledge and skills to identify and execute investment in low-carbon buildings. Planned local-level energy efficiency investments are, therefore, not able to leverage scarce public finance for maximum environmental, social and economic benefits. The risk is exacerbated by insufficient relevant technical staff at local level, insufficient number of energy managers within public authorities as well as limited relevant expertise available for energy audits and for the	Technical and operational	Medium (5.1-20% of project value)	Low

identification and implementation of feasible integrated EE/RE projects in buildings.

Mitigation Measure(s)

Risk mitigation: The project will mitigate this risk through the provision of expertise and technical assistance to municipalities to prepare/update their SECAPs (Activity 1.1.1) and implement energy management (Activity 1.1.2). Further, assistance will be provided to building end-users to identify, prepare and undertake detailed technical and economic analysis of proposed EE-RE projects in buildings. The project will also provide training to municipal energy managers in project identification, preparation and oversight.

Selected Risk Factor 3

Description	Risk category	Level of risk	Probability of risk occurring
Non-existence of technical data on energy (and water) consumption in the public building stock and lack of coherent information on building retrofit interventions lead to fragmented and uncoordinated approaches.	Technical and operational	Low (<5% of project value)	Medium

Mitigation Measure(s)

Risk mitigation: The project’s approach to mitigate this risk is two-fold. First, under Activity 1.1.2 it will support nationwide roll-out of the Energy Management Information System (EMIS) to ensure that towards project-end ALL 5,000 public buildings in BiH are covered: i.e. have a system in place that enables collection and storage of data about buildings’ energy and water use, and HR capacity in place to operate the system. Second, under the same activity work will be done to establish entity-level “EMIS”, which will aggregate individual building data into entity-level databases and will also cover other municipal energy users (e.g. utilities, such as street lighting companies, heating companies, etc.) so that relevant authorities (EFs – as mandated by the EE Law) have complete overview of their energy use at various level, can analyze energy data, establish benchmarks and targets (e.g. maximum energy intensity in public buildings), and prioritize and allocate public funds accordingly. Training and advisory services will be provided to all EMIS users from individual building to entity level to ensure human resources are adequate to implement on a nation-level scale. UNDP’s experience with implementing a similar programme in Croatia proves that the task is doable, but requires a lot of systematic efforts and assistance, especially in the beginning, to ensure the system’s sustainability in the long-run.

Selected Risk Factor 4

Description	Risk category	Level of impact	Probability of risk occurring
Limited access to finance for low-carbon investment in public buildings: low credit-worthiness of the municipal authorities and low uptake of non-grant mechanisms; operational barriers that prevent municipal budgets from retaining the financial savings from energy efficiency projects to be able to repay the loans.	Financial	Medium (5.1-20% of project value)	Medium

Mitigation Measure(s)

Risk mitigation: The project will mitigate these risks by implementing a financial support mechanism that will combine several categories of financial instruments tailored to address various financing risks that EE-RE projects and public building end-users face. Additional financial incentives will be designed in order to stimulate investments in buildings with high CO₂ savings, socio-economic benefits potential and *compensate* for the low financial returns (e.g. investments in coal-heated buildings, considering the actual and perceived low financial return of such investments due to common under-heating standards found in public schools).

Selected Risk Factor 5

Description	Risk category	Level of impact	Probability of risk occurring
High transaction costs of project identification, preparation and supervision, and low attractiveness of coal-RE fuel-switch projects discourage potential private sector investments.	Financial	Medium (5.1-20% of project value)	Low

Mitigation Measure(s)

Risk mitigation: The project will mitigate this risk by allocating grant resources in the form of technical assistance for project development and oversight to compensate for high up-front transaction costs related to project development, thus minimizing the risks faced by the private sector.

Selected Risk Factor 6

Description	Risk category	Level of impact	Probability of risk occurring
Climate change-induced extreme weather events, in particular floods, may affect some of the project's retrofitted buildings.	Social and environmental	Low (<5% of project value)	Low

Mitigation Measure(s)

Risk mitigation: The project will cover some of the flood-prone areas and will therefore have to ensure that the energy efficiency measures applied to the buildings in flood-prone zones are adequate and suitable, in order to increase buildings' resilience and minimize economic loss in case of a disaster (e.g. dry-proofing and wet-proofing measures). Assessment of climate risks and vulnerabilities, as well as recommendations on specific climate risk mitigation measures will be undertaken in the course of SECAP preparation (Activity 1.1.1).

Selected Risk Factor 7

Description	Risk category	Level of impact	Probability of risk occurring
Generation of waste from building retrofits	Social and environmental	Low (<5% of project value)	Low

Mitigation Measure(s)

158. **Risk mitigation:** The project will set up measures to deal with the generation of waste from building retrofits, by including specific terms regarding (environmentally-friendly) waste disposal in the contractual agreements with building contractors, including special provisions for utilization of mercury-containing light bulbs and proper management of ant other potentially hazardous materials, as mandated by relevant national policies and regulations. UNDP has long experience with implementing and overseeing building retrofits works under on-going GED projects, including ensuring proper waste handling practices from construction sites. Under Activity 1.1.4 "project oversight and implementation support" the implementation of those provisions will be ensured by relevant project staff.

Selected Risk Factor 8			
Description	Risk category	Level of impact	Probability of risk occurring
Duty-bearers do not have the capacity to meet their obligations, such as in collecting baseline data for the EMIS and in managing EE building retrofit financing projects	Social and environmental	Low (<5% of project value)	Low
Mitigation Measure(s)			
<p>Risk mitigation: The project will support duty bearers in the public sector to improve their skills and capacities for a better delivery of services to communities, including vulnerable communities: e.g. increased competencies to operate energy databases; capacities to design, implement and operate integrated fuel switch interventions, and improved design of climate-smart and inclusive programmes and policies.</p>			

Selected Risk Factor 9			
Description	Risk category	Level of impact	Probability of risk occurring
CAPEX costs may vary significantly depending on the basic parameters of the building, including the quality of its routine maintenance and/or the need to incorporate additional climate protection measures; therefore, in some cases additional non EE-RE related works and services will be required which would lead to higher than foreseen CAPEX.	Financial	Medium (5.1-20% of project value)	Medium
Mitigation Measure(s)			
<p>Risk mitigation: Once the detailed economic and technical analysis is conducted, the eligible costs of EE-RE works will also be defined as well as the need for any additional investment. Those will have to be additionally co-financed by the building en-users. CAPEX estimates will be done by qualified sub-contractors as part of sub-project preparation appraisal work. Based on CAPEX estimates detailed financing plan per building will be prepared including securing co-financing by Responsible Partner. GCF financing will only be released after the completion of EE works and only in the amount agreed upon at project appraisal stage.</p>			

Selected Risk Factor 10			
Description	Risk category	Level of impact	Probability of risk occurring
Co-financing: the need to ensure that co-financing is leveraged and disbursed at the same time as the GCF funds	Financial	Medium (5.1-20% of project value)	Medium
Mitigation Measure(s)			
<p>Risk mitigation: Co-financing of the investment output will have to be disbursed at the same time as the GCF funds. It will be the responsibility of each Responsible Partner to ensure required co-financing. The sequence of actions will be the following (see diagram below and in the Annex XIII e):</p> <ul style="list-style-type: none"> - For each sub-project (building), a detailed financing plan will be prepared and agreed upon up-front with building end-user, including the determination of the share of GCF grant in the total investment cost. - UNDP checks compliances with Operational Guideline and approves “financing plan”, including the eligible share of GCF-funded cost - Responsible partner procure EE works and services - After completion of works, UNDP PIU certifies work completion in accordance with agreed plan - Responsible partner releases funds to sub-contractors. <p>On semi-annual basis, each Responsible Partner a) report on the disbursement of the previous advance; b) provide certification of the completed works, including co-financing. Only after provision of a) and b) new request for funds can be made. At any point, if Responsible Partner fails to report or the report is unsatisfactory, UNDP can stop funds disbursement.</p>			

**Annex M: LOA with the government in case DPCs are applied
*not applicable for this project***

Annex N: Capacity Assessment including HACT micro assessment

Provided separately

Annex O: Supporting Documents (Annexes from the Funding Proposal) used for the Quality Assurance Report

Annex O1: Coverage of Public Buildings by EMIS by Region in BiH



Annex O1
_UNDP_Pro_Doc_FP-

Annex O2: Status of Sustainable Energy Action Plans



Annex
O2_UNDP_Pro_Doc_

Annex O3: Green Jobs Study



Annex O3_UNDP_
Pro_Doc_FP-UNDP-2

Annex O4: TERMINAL EVALUATION REPORT UNDP–GEF MEDIUM-SIZE PROJECT BOSNIA AND HERZEGOVINA - BIOMASS ENERGY FOR EMPLOYMENT AND ENERGY SECURITY



Annex O4_
UNDP_ProDoc_FP-U

Annex P: UNDP Project Quality Assurance Report (completed in UNDP online corporate planning system)



**Design & Appraisal
Stage Quality Assur:**

Annex R: Abbreviations List

AMA	Accreditation Master Agreement
AML	Anti-Money Laundering
APR	Annual Project Report
APR	Annual Performance Review
BiH	Bosnia and Herzegovina
CAPEX	Capital expenditure or capital expense
CD	Country Director
CFT	Countering the Financing of Terrorism
CIP	Customer Identification Programme
DCD	Deputy Country Director
DDT	Dichlorodiphenyltrichloroethane
DEAs	Detailed Energy Audits
DIM	Direct Implementation Modality
DREI	DE-risking Renewable Energy Investment
DRR	Deputy Resident Representative
EA	Energy Audits
EBRD	European Bank for Reconstruction and Development
EE	Energy Efficiency
EFs	Environmental Funds
EIAs	Environmental Impact Assessment
EIRR	Economic Internal Rate of Return
EMIS	Energy Management Information System
EoP	End of Project
EPBD	Energy Performance in Building Directive
EPC	Energy Performance Contracting
ERC	Evaluation Resource Centre
ESCO	Energy Service Company
ESMP/ESMF	Environmental and Social Management Plan or Framework
FA	Financial de-risking
FAA	Funded Activity Agreement
FBiH	Federation of Bosnia and Herzegovina
FIGAP	Financing Mechanism for the Implementation of the Gender Action Plan
FIRR	Financial Internal Rate of Return
FMPU	Federal Ministry of Physical Planning
FTE	Full-Time Equivalent
GCF	Green Climate Fund
GDP	Gross Domestic Product
GED	Green Economic Development
GEF	Global Environment Facility
GHG	Greenhouse Gas
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit

HACT	Harmonized Approach to Cash Transfer
HVAC	Heating, ventilation, and air conditioning
IEO	Independent Evaluation Office
IFIs	International Financing Institutions
IRR	Internal Rate of Return
KYC	Know Your Customer
LCUD	Low Carbon Urban Development
LFO	Light Fuel Oil
M&E	Monitoring and Evaluation
MoFTER	Ministry of Foreign Trade and Economic Relations of BiH
MPP FBiH	Ministry of Physical Planning of the Bosnia and Herzegovina
MPUGERS/MSPCE	Ministry of Spatial Planning, Civil Engineering and Ecology of Republika Srpska
MRV	Measurement, Reporting and Verification
MSPCE	Ministry of Spatial Planning, Civil Engineering and Ecology of Republika Srpska
NDC	Nationally Determined Contribution
NGO	Non-Governmental Organization
NIM	National Implementation Modality
OAI	Office of Audit and Investigation
OECD	Organization for Economic Co-operation and Development
PAC	Project Appraisal Committee
PCB	Polychlorinated Biphenyl
PIU	Project Implementation Unit
PM	Project Manager
PoPP	Programme and Operations Policies and Procedures
PR	Public Relations
PSC	Project Steering Committee
QPRs	Quarterly Progress Reports
RE	Renewable Energy
ROAR	Results Oriented Annual Report
RPS	Responsible Parties
RR	Resident Representative
RS	Republika Srpska
SBAA	Supplemental Provision to the Project Document
SBAA	Standard Basic Assistance Agreement
SBS	Small Business Support
SD	Sustainable Development
SDG	Sustainable Development Goals
SECAPs	Sustainable Energy and Climate Action Plans
SECAPs	Sustainable Energy Cities Action Plans
SECU	Social and Environmental Compliance Unit
SESP	Safeguards Screening Procedure
SESP	Social and Environmental and Safeguards Screening Procedure
Sida	Swedish International Development Cooperation Agency

SMEs	Small and Medium-Sized Enterprises
SSTrC	South-South and Triangular Cooperation
TA	Technical Assistance
UN	United Nations
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNSMS	United Nations Security Management System
UNSMS	United Nations Security Management System
UNV	United Nations Volunteers
USAID	United States Agency for International Development
WB	World Bank