

Project Title: Biomass Energy for Employment and Energy Security – Follow Up Project, Bosnia and Herzegovina (BiH)

Project ID: 00054633; **Award ID:** 00046049

Implementing Partner: UNDP in BiH

Start Date: 09/01/2016

End Date: 08/31/2020 **LPAC Meeting date:** 03/18/2016

Implementation modality: Direct Implementation Modality (DIM)

Brief Description

The follow-up phase of the Biomass Project is aimed at continuing to strengthen and enhance the energy safety of rural communities throughout the country, while fostering the development of enterprises for processing locally available biomass, and setting up sustainable partnerships that contribute to the economic development of micro-regions. This document sets out project actions aimed at increasing the biomass demand, improving biomass delivery, overcoming technical, legislative and awareness barriers and enhancing research on these issues throughout Bosnia and Herzegovina (BiH); as a part of continuing mutual efforts of UNDP BiH and the Czech Development Agency (CzDA) in this sector.

Total duration of the project is 48 months (including 12 months of no-cost extension). Within the budget of 886,000 Euros – 486,000 Euros is planned to be directly allocated to UNDP for the soft components, while approximately 400,000 Euros is to be allocated for the infrastructure technology procurement (to be undertaken in the Czech Republic by the CzDA), while matching funds will be ensured by UNDP for additional energy efficiency infrastructure measures.

The overall objective of the project is to contribute to the improvement of local population living standards by long term reduction of the CO₂ emissions, through a general approach of a higher renewable energy share in the BiH energy targets. The output of the project is to contribute to the higher renewable energy share in the BiH energy mix as a part of the global new sustainable development agenda.

The following three results give an overall description of logic behind the activities that follow in the aim to fulfill the overall objective and output of the project by leading to stronger partnerships, networking and supporting schemes within the private, public and government sectors as follows:

Result/Activity 1: Responsible ministries are supported in development and adoption of strategic framework for sustainable biomass utilization – this activity will result in a Study on identification of policy gaps within energy and forestry sector in segment of wood biomass in Bosnia and Herzegovina, development of the Guide on best practices and recommendations to increase utilization of wood biomass in Bosnia and Herzegovina, preparation of detailed instructions for implementation of selected recommendations from the abovementioned study on policy gaps, development of draft Law on heat energy in Federation of BiH, development of integral plans for utilization of wood biomass in public and private forests for two selected localities in Republika Srpska and Brčko District (last two are compensatory activities for updating of Renewable Energy Action Plans) and increased capacity of key decision makers and representatives of private sector and local communities on different aspects of wood biomass (for policy makers - learning from experience and lessons learned from the Czech experience and issues related to wood biomass business models and management for private sector and local communities).

Result/Activity 2: Quality and availability of the wood biomass energy carrier for heating purposes increased due to the adoption and use of improved methods of biomass processing - this result will focus at identification, quantification, and mapping of biomass exploitation in BiH. In line with this, emphasis shall be given to supporting forest governance mechanisms, which should be developed to support best practices in forestry (including best available techniques - BAT and operational methods), while pinpointing recommendations to increase utilization and quality of wood biomass¹.

Result/Activity 3: Number of implemented infrastructural renewable energy systems (RES) projects increased due to the project's newly developed business models and financial schemes for investment in biomass - the output will target completion of at least four RES infrastructure projects implemented until the end of 2020, as well as at least another 6 RES infrastructure projects implemented based on newly developed financial schemes until 2020.

¹ During project inception and project closer phase a research will be conducted to analyze wood biomass quality on BiH's market and project (output 1.2.) impact. Beside the suppliers wood biomass quality also the quality of currently used biomass by the end users will be checked and compared.

Linkage with SDGs: SDG 7 (Affordable and Clean Energy); target 7.2: To increase substantially the share of renewable energy in the global energy mix by the year 2030; SDG 15 (Life on land); target 15.2: By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally

Linkage with EU accession agenda:

EU Chapter 15 - Energy

Linkage with UNDP Strategic Plan:

Output 1.1. National and sub-national systems and institutions enabled to achieve structural transformation of productive capacities that are sustainable and employment – and livelihoods-intensive

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).

Contributing Outcome (UNDAF/CPD):

By 2019, legal and strategic frameworks are enhanced and operationalized to ensure sustainable management of natural, cultural and energy resources.

Output/s ID (with gender marker²): 00054633 / GEN 2

Total resources required:	886.000 EUR	
Total resources allocated:	UNDP TRAC:	
	Donor:	886.000 EUR
	Donor:	
	Government:	
	In-Kind:	400.000 EUR
Unfunded:		

Agreed by (signatures)³:

UNDP



Print Name: Mr. Sukhrob Khoshmukhamedov, Deputy Resident Representative

Date: 19.07.19

² The Gender Marker measures how much a project invests in gender equality and women’s empowerment. Select one for each output: GEN3 (Gender equality as a principle objective); GEN2 (Gender equality as a significant objective); GEN1 (Limited contribution to gender equality); GEN0 (No contribution to gender quality).

³ Note: Adjust signatures as needed.

List of abbreviations

BAT	Best Available Techniques
BiH	Bosnia and Herzegovina
CzDA	Czech Development Agency
ECS	Energy Community Secretariat
EE	Energy Efficiency
EFs	Environmental Funds
EMIS	Energy Management Information System
EPC	Energy Procurement Construction
ESCO	Energy Service Company
EU	European Union
FBiH	Federation of Bosnia and Herzegovina
GEF	Global Environment Facility
GHG	Greenhouse Gas
HVAC	Heating, Ventilation and Air Conditioning
IFC	International Finance Corporation
INDC	Intended Nationally Determined Contributions
JV	Joint Venture
MDGF	Millennium Development Goals Achievement Fund
MVR	Monitoring – Verification – Reporting
NEEAP	National Energy Efficiency Action Plan
NGOs	Non-governmental organizations
PPP	Purchasing Power Parities
REAP	Renewable Energy Action Plan
RES	Renewable Energy Systems
RS	Republic of Srpska
SHPPs	Small hydropower plants
UNFCCC	United Nations Framework Convention on Climate Change

I. DEVELOPMENT CHALLENGE

1.1 Country context

As country with transitional economy, BiH is struggling with various challenges in terms of its social, political, economic, and environmental realities. Securing fragile political stability, increasing number of working places and sustainable management of natural resources are probably issues deserving to be high-ranked in political agendas at all administrative levels.

Unemployment is a challenge that has been present in BiH as a consequence of poor governance and transition to a market economy. In recent years, it has been exacerbated by the impact of the global economic crisis on the country's economy (currently official unemployment rate of 27.5%⁴, as per ILO methodology). While some efforts are being made to increase employment by encouraging investment in strategic projects such as energy facilities and systematic decrease of energy consumption, the potential of these investments is currently significantly limited, primarily due to several non-existing legislative commitment factors within the energy efficiency / renewable energy primary and secondary legislation, and undeveloped monitoring – verification – reporting (MVR) market and financial mechanisms.

Considering that forests cover more than 50% of the territory, forestry and wood-processing industry are important pillars of national economy, particularly in rural areas. Although there is a substantial potential for energy production based on available wood biomass, traditional, low-energy efficiency patterns still characterize the use of wood, such as using of fuel wood for individual household heating. Furthermore, domestic heating using firewood is increasingly important in BiH, since prices of other heating fuels are increasing significantly. Many parts of the country, particularly rural areas, have no access to natural gas and therefore wood and coal are traditional heating fuels.

The most significant source of biomass for energy production is wood mass from forestry (firewood, forestry residues) and wood waste from wood processing industry. It is estimated that up to one third of the harvested round wood, or 1.2 million m³, is used to produce firewood; therefore, about 2 million m³ of harvested wood in BiH ends up as firewood for domestic heating. According to various estimates, current firewood consumption in BiH is about 1.6 million m³ per year and, according to data provided by the Foreign Trade Chamber of Commerce of BiH - about 0.5 million m³ is exported.

However, besides the existing technical potential, one of the main challenges which remains within BiH's biomass sector is to assure further policy development which will enable sustainable and continuous biomass utilization and develop an efficient biomass value chain management. The EU Progress Report of BiH for 2016 emphasized the need for adoption of country-wide energy sector reform strategy that should be in compliance with the country's obligations under the Energy Community Treaty. As indicated in Progress Report, absence of single or harmonized legal and regulatory framework together with lack of coordination and cooperation between government levels blocks the required significant upgrades and the considerable growth opportunities in energy sector. Such situation makes current policy framework and strategic commitment for wood biomass based energy production as rather formal than substantive. Within the process of joining the European Union (EU), BiH should harmonize its policy and legislation frameworks with the EU *acquis*, including those related to energy and environment issues. To promote sustainable use of wood biomass for production of energy, international investments, as well as to facilitate integration processes towards the EU, sound national policies have to be developed, including a mix of energy policy instruments (regulatory, economic and informative ones).

It is necessary to emphasize that currently there are no clear forest governance mechanisms in BiH providing the essentials of a wood biomass market – the security of supply of wood biomass to ensure the reliability of continuous supply for the required demand, i.e. required quantity and quality. Namely, more and more is invested in Heating, Ventilation and Air Conditioning (HVAC) infrastructure and refurbishment of buildings in BiH, which contain fuel-switch projects (from fossil to wood biomass). As a result, the demand for higher energy carrier quantity and quality (in terms of net calorific value) increases. However, due to lack of developed, adopted and enforced forest governance mechanisms, which is one of the key enabling points for assuring a balanced supply/demand environment within BiH's wood biomass market, it is of high importance to introduce best practices and operational methods within the fragmented BiH forest governance and thus create standardization and a systematic approach to forest governance, while enabling a better business environment for wood biomass supply (in combination with the right legislative environment in place). Biomass market involves relatively high number of different stakeholders from ministries and their agencies (forestry, environment, energy, finance, etc.). Additionally, BiH's administrative set-up is consisted of 14 governments that have their mandates, obligations and rights within the forestry sector and thus influence on the wood biomass market in BiH. Consequently, such circumstances impede creation of inter-ministry or inter-entity platforms which could enable the proper coordination among the vast number of stakeholders. The result is unclear overview of jurisdictions, mandates, value chains and responsibilities. Therefore, clear identification of responsibilities between the

⁴ BiH Agency for Statistics, 2016.

specified entity ministries is necessary in the endeavor to ensure sustainable use of forest biomass and stimulate mobilization of unused resources.

In addition, the project is aiming to remove different barriers through fulfilling policy gaps with focus on wood biomass energy and identification of its potentials aiming at increase of its utilization and conducting a thorough analysis of gaps in the relevant sectors. Such gap analysis will serve as a basis for developing an adequate, cross-sectoral, legislative framework for sustainable utilization of forest biomass, strengthening capacities of policy makers, mapping the biomass utilization and exploitation potential and launching a set of forest governance mechanisms (thereby securing the biomass fuel-supply of the end users). Namely, although there is an obligation to increase the RES portfolio and to decrease greenhouse gas (GHG) emission (and therefore also the wood biomass fueled heating systems), there are no financial mechanisms or incentives in place for financing fuel-switch projects which might be encouraging for such investments. In the public sector of BiH, within the last five years, several financing projects (mostly grant and/or co-financing) contributed to the implementation of fuel-switch measures. However, all of them are rather small-scale in terms of volume of funds available and/or in terms of distribution of funds. Moreover, the 1st National Energy Efficiency Action Plan (NEEAP), although not adopted, reflects a strategic approach to achieve energy efficiency (EE) and RES targets of the Federation of Bosnia and Herzegovina (FBiH) and Republic of Srpska (RS) by 2018 and proposes financial incentives for residential, public, and commercial buildings. Although foreseen within the NEEAP, currently there are no financial incentives (VAT reduction on selected EE products, tax rebates for EE/RES investments, soft loans supported by government/authorities) for renewable energy/wood biomass products, activities or measures in BiH. The noteworthy concern is that once the primary and secondary legislations on forestry and energy are in place and adopted in both entities, and the monitoring and reporting mechanisms are developed and in position to replace ad-hoc for strategic RES investment decision making, the required financial market mechanisms and modalities for the support of fuel-switch projects (fossil to biomass) will not be developed to a stage to be able to support investments into BiH's GHG saving targets and to generate domestic employment. To avoid these discrepancies, development of financial mechanisms for fuel-switch projects (fossil to biomass) will take place in parallel to the development of legislative framework and forest governance mechanisms within this project.

1.2 Previous experiences and lessons learnt, which inform the Project strategy

Since initial start of project implementation in 2009, the government has relied on and cooperated with UNDP in relation to biomass issues, in terms of financial and management facilitation and coordination of specific wood biomass-related and energy efficiency measures. Be it the private sector or governmental institutions, successful work of UNDP in BiH has resulted with strong partnerships and swift and proven results. This placed UNDP as a lead partner when it comes to issues related to wood biomass energy, throughout the whole chain of infrastructure, policy, and socio-economic pillars.

Since 2009, UNDP BiH has been implementing a robust portfolio of activities in the segment of wood biomass mainly through its Global Environment Facility (GEF) Biomass energy for employment and energy security, and Millennium Development Goals Achievement Fund (MDGF) Green Economic Development projects. These projects succeeded to enrich the local experience and reduce CO₂ emissions by treating and supporting infrastructure projects including public schools and hospitals by investing over 4.5 million dollars with installation of new biomass heating systems and other energy efficiency interventions aimed at providing green solutions for the public sector of BiH. Through its general programming, UNDP has also co-financed the projects in its micro localities and has provided additional funding from the Funds for Environmental Protection of FBiH and RS.

Above described UNDP's experience in the wood biomass segment has tackled the identified barriers to the widespread and market-based growth of modern biomass energy and has been resulting in:

- An increased market demand for biomass energy through implementation and promotion of fuel-switch projects in public buildings, resulting in at least 900t CO₂ emissions reduction annually and demand for at least 700 tons of biomass annual fuel consumption;
- A strengthened and expanded sustainable biomass fuel supply; including establishment and legal registration of a Biomass Association as well as supporting the National Institute for Standardization for adoption of the five solid bio-fuel EU standards;
- Policy makers, the financial sector, fuel and technology suppliers and niche markets convinced of the benefits and market opportunities for biomass energy; which has been achieved through several baseline awareness-raising activities including facilitation of wood biomass marketing and promotional activities across the whole BiH; training programs on renewable energy sources with a focus on biomass; competitive exhibitions, policy recommendations and marketing activities.

All the achievements and activity plans have been based on relevant research and data compilation, including project publications such as: cost/benefit analysis and survey of the risk/capacities for biomass use (2011), biomass supply and demand assessments (2011) and study on possibilities of using biomass in Bosnia and Herzegovina (2014).

However, the renewable energy sector is still characterized by insufficient private sector activity and few concrete opportunities, for example, medium-size and large hydropower development concessions. Despite of the support from the International Finance Corporation (IFC) on improving the renewable energy legal framework in recent years that resulted with the adoption of renewable energy laws in both entities, strategic, legislative, and institutional framework for biomass utilization in BiH is still insufficiently developed. Changes to the law on concessions facilitating the financing of renewable energy projects, adoption of several bylaws, and the limited incentives for renewable energy projects in both entities are a significant impediment to full renewable energy sector development. As a result, there is inappropriate structure of new renewable energy projects, which are focused at the moment mostly on small hydropower plants (SHPPs), resulting in limited opportunity for economic growth, exports, and job creation.

II. STRATEGY

2.1 Theory of change

The project aims to support and promote wood biomass utilization as one of the key methods for ensuring the security of supply and sustainable energy in the country and bringing many additional benefits to BiH including environmental, social, and economic enhancements. This encompasses activities aimed at increasing the biomass demand, improving biomass delivery, overcoming technical, legislative and awareness barriers and enhancing research on these issues throughout BiH as a part of continuing mutual efforts of UNDP BiH and CzDA in this sector. Additionally, public campaign on wood biomass utilization and potential in BiH, its effects on environment and generation of green jobs will be conducted in parallel. Considering the complexity of sustainable use of wood biomass, such approach would lead to creation of a supporting environment among diverse stakeholders that have interests in sustainable wood biomass utilization and lay baseline foundation for biomass and bioenergy to play more important role in the economy of the country. The changes with which the project would contribute to BiH wood biomass utilization system would include preparation and distribution of various studies on different aspects of wood biomass production and utilization (gap analysis of political framework, study on wood biomass exploitation and utilization in BiH, review of current forest governance mechanisms for wood biomass and study on models and current financial mechanisms for wood biomass projects in BiH). Together with creation and strengthening capacities of policy makers, private sector representatives and local communities on wood biomass business models and management, such approach will contribute to harmonization of wood biomass related policy and legislation frameworks with the EU acquis within the EU accession process.

2.2 Links to national and international strategies and frameworks

The project is expected to contribute to the increase of BiH's RES portfolio in 2020 towards the Energy Community Secretariat's defined target of 40% for BiH in comparison to the ECS 2009 defined verifiable baseline of 34%. This shall be verified through the official Ministry of Foreign Trade and Economic Relations reports and annual ECS reports. As concerns Reform agenda for BiH (2015 – 2018), project contributes to the Business Climate and Competitiveness actions.

The First National Energy Efficiency Action Plan reflects a strategic approach to achieve EE and RES targets of FBiH and RS by 2018 and proposes financial instruments for supporting the residential, public and commercial buildings such as VAT reduction on selected EE products, Tax rebates for EE/RES investments and soft loans supported by government/authorities.

The project is directly linked to Sustainable Development Goal (SDG) 7 related to ensuring access to affordable, reliable, sustainable, and modern energy for all (more specifically to target 7.2 - to increase substantially the share of renewable energy in the global energy mix by the year 2030). Furthermore, Project is linked to the SDG 15 (Life on Land) related to assuring sustainable management of forest ecosystems by increasing utilization of wood biomass (more specifically target 15.2: By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally.).

In terms of linkage with UNDP Strategic Plan, project is linked with following outputs: Output 1.1. National and sub-national systems and institutions enabled to achieve structural transformation of productive capacities that are sustainable and employment – and livelihoods-intensive

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).

2.3 Hierarchy of objectives

The main purpose of the project is to contribute to the higher renewable energy share in the BiH energy mix as a part of the global new sustainable development agenda. The project is aimed at continuing to strengthen and enhance the energy safety of rural communities throughout the country, while fostering the development of enterprises for processing locally available biomass, and setting up sustainable partnerships that contribute to the economic development of micro-regions. This encompasses activities which include: development of policy for sustainable biomass utilization in BiH that is reflected to the legislation and use in practice; adoption and use of improved methods of biomass processing and development of business models and financing schemes for investments in biomass infrastructure projects / implementation of demonstration projects. Apart from these activities, and by taking into the consideration the complexity of the issue of sustainable use of wood biomass for the needs of energy production, need for cooperation between representatives of the energy, agriculture, forestry environment and rural development sectors has been recognized and emphasized as basic precondition for successful project implementation.

Having in mind abovementioned project rationale, hierarchy of the project's objectives is as follows:

Output: Higher renewable energy share in the BiH energy mix.

Result/Activity 1: Responsible ministries are supported in development and adoption of strategic framework for sustainable biomass utilization.

Result/Activity 2: Quality and availability of the wood biomass energy carrier for heating purposes increased due to the adoption and use of improved methods of biomass processing.

Result/Activity 3: Number of implemented infrastructural renewable energy systems (RES) projects increased due to the project's newly developed business models and financial schemes for investment in biomass.

2.4 Project approach

Regarding the subject mentioned above, the strategy proposed for implementation of the project would include high level inclusion of the relevant authorities (especially throughout all three components of the project), most likely through establishment of one multidisciplinary coordination body in order to map and efficiently plan operative segments for enabling a better wood biomass market in BiH (mapping of target localities, targeted gaps to be fulfilled in terms of policy, private sector clustering, green package and green job creation etc.).

Considering the complexity of the issue of sustainable use of wood biomass for the needs of energy production, cooperation between representatives of the energy, agriculture, forestry, environment and rural development sectors represents the basic precondition for its successful solution. In order to enable this, the cooperation must be founded on objective grounds based on access to information and knowledge related to wood biomass and its sustainable use; whilst securing the sustainability with adequate set of financial mechanisms. The project activities and interventions are all in-parallel planned to ensure participation and ownership of different stakeholders through appropriate networking, advocacy and awareness raising activities. The activities particularly focusing on this are the following:

- **Creation of a multidisciplinary coordination body and contribution to the development of an efficient and sustainable value chain management** – ensuring participation and ownership of representatives of line Ministries, RES Agencies, Academia and the private sector through adequate research into interests and responsibilities of these partners.
- **Introduction of biomass-related supporting financial mechanisms in FBiH and RS** – considering that the results of this activity include provision of technical assistance to the drafting and the adoption of internal acts, methodologies, and project evaluation criteria within the Funds' for environmental protection standard operating processes, the ownership of this activity would be secured as these are necessary for the Funds' operations within the area of wood biomass.
- **Establishment of a Biomass Innovation Centre for private sector representation through existing Biomass Association in BiH** – considering the growing need of the private sector for support in the development of an expanding clean technology industry, the ownership of these partners is expected to be in line with these needs.
- **Creating understanding and strengthening capacities of policy makers and biomass value chain stakeholders** – taking into consideration B&H's aspirations towards EU accession and the obligations linked to this process, it is expected that the ownership relevant to these activities will be reflected as overall responsibility of the stakeholders.

III. RESULTS AND PARTNERSHIPS

➤ Detailed description of output, activities and expected results, project duration

The following three results give an overall description logic behind the sub-activities that follow in the aim of fulfilling the project output.

- **Result/Activity 1: Responsible ministries are supported in development and adoption of strategic framework for sustainable biomass utilization** – this activity will result in a Study on identification of policy gaps within energy and forestry sector in segment of wood biomass in Bosnia and Herzegovina, development of the Guide on best practices and recommendations to increase utilization of wood biomass in Bosnia and Herzegovina, preparation of detailed instructions for implementation of selected recommendations from the abovementioned study on policy gaps, development of draft Law on heat energy in Federation of BiH, development of integral plans for utilization of wood biomass in public and private forests for two selected localities in Republika Srpska and Brčko District (last two are compensatory activities for updating of Renewable Energy Action Plans) and increased capacity of key decision makers and representatives of private sector and local communities on different aspects of wood biomass (for policy makers - learning from experience and lessons learned from the Czech experience and issues related to wood biomass business models and management for private sector and local communities).

To accomplish this result, it is planned to conduct the following sub-activities:

Sub-Activity 1.1: Identification of policy gaps within the energy and forestry sectors – conducting a thorough analysis of the gaps in the relevant sectors, through analysis of key institutional and legal preconditions within these relevant sectors.

Sub-Activity result: a study compiled by relevant local experts containing concrete recommendations on strategic and legislative preconditions regulating the issue of using forest biomass and exact policy amendment recommendations.

Sub-Activity 1.2: Advocating for the development of effective policies and legislation frameworks - biomass policies will be developed and promoted in both entities of BiH, based on the identified policy gaps. The sub-activity will be implemented through presentation of the findings of the policy gaps analysis (1.1) and recommendations for their implementation and supporting mechanisms.

Sub-Activity result: detailed instructions for implementation of selected recommendations from the abovementioned Study on identification of policy gaps within energy and forestry sector in segment of wood biomass in Bosnia and Herzegovina. Additionally, it will include a Guide on best practices and recommendations to increase utilization of wood biomass in Bosnia and Herzegovina.

Sub-Activity 1.3. Development of state/entity level Biomass Action Plans (particularly: RES plans) – Representatives of responsible ministries at the entity level (Ministry of industry, energy and mining of Republika Srpska and Federal ministry of energy, mining and industry) officially alleged that no further technical assistance for updating the current entity-level Renewable Energy Action Plans is needed. Therefore, it has been decided to provide technical assistance on following:

Sub-activity 1.3.a: Development of draft Law on heating energy of Federation of BiH (compensatory activity for FBiH)

Sub activity 1.3.b: Development of integral plan for biomass utilization in public and private forests for two selected localities; in Republika Srpska for public and in Brcko District for private forests (compensatory activity for RS)

Sub-Activity result: This sub-activity will result with preparation of draft Law on heating energy of FBiH, Integral plans for utilization of wood biomass in public and private forests for two selected localities (in RS and Brčko District) and preparation of bylaw document on methodology for preparing integral plans for utilization of wood biomass in public forests in RS.

Sub-Activity 1.4: Creating understanding and strengthening capacities of private sector, local communities and policy makers - development and delivery of training modules on wood biomass business models and management for private sector and local communities. The training modules are planned to be held for the private sector and for at least ten local communities (municipalities and cities) on the topics of energy service companies (ESCO), public-private partnership (PPP), fuel-switch, energy service contracting, energy performance contracting. Additionally, this activity would include a study tour to the Czech Republic for up to 10 BiH policy makers to support them with first-hand experience and lessons learned from the successful Czech experience.

Sub-Activity result: The result will be increased knowledge of at least ten policy makers (relevant ministry representatives) in the field of wood biomass. The increased capacities will be evaluated through the method of pre-

and post-testing (survey). Additionally, it will result in increased knowledge of at least ten private sector representatives (selected through participation within the Biomass association) and at least ten targeted local communities with high biomass utilization potential on the topics of wood biomass business models and management.

- **Result/Activity 2: Quality and availability of the wood biomass energy carrier for heating purposes increased due to the adoption and use of improved methods of biomass processing** - this result will focus at identification, quantification, and mapping of biomass exploitation in BiH. In line with this, emphasis shall be given to supporting forest governance mechanisms, which should be developed to support best practices in forestry (including best available techniques - BAT and operational methods), while pinpointing recommendations to increase utilization and quality of wood biomass⁵.

To accomplish this result, it is planned to conduct the following sub-activities:

Sub-Activity 2.1: Creation of a multidisciplinary coordination body for development of an efficient and sustainable value chain management – establishment of an inter-sectoral cross-entity coordination body consisting of representatives of line ministries, RES Agencies, academia and the private sector. UNDP will additionally ensure that this coordination platform meets on a regular basis (at least once in four months) during the project implementation with concrete recommendations for next steps in terms of facilitation of biomass use and value chain management.

Sub-Activity result: The sub-activity will result in creation of a platform with all key stakeholders, who will be equally able to express their views and expert opinions, share lessons learned and direct the different thematic areas of the project towards successful and efficient implementation; through a newly established networking and advocacy opportunity.

Sub-Activity 2.2: Mapping of BiH biomass exploitation and utilization potential - Development of a study on identification, quantification and mapping of biomass exploitation and utilization potential; including publishing, printing (around 300 copies) and promoting the study summary through a relevant event and Biomass Association (association for support of biomass production that has been established within the previous UNDP BiH Biomass project) as well as dissemination to stakeholders.

Sub-Activity result: This sub-activity will result in a comprehensive study related to wood biomass exploitation and utilization in BiH, including its quality improvement potentials and options and a detailed map of biomass potentials in BiH, offering a baseline for further biomass activities. In addition, the comparison of wood biomass quality will be made in the form of report. The wood biomass quality will be analyzed in the beginning and in the end of the project implementation. A part from the quality of biomass suppliers, the quality of the biomass used by the end users will be checked.

Furthermore, this activity will result with development of bylaw documents on entity levels which will define roles and responsibilities for updating the database on biomass potentials which has been developed within the Project.

Sub-Activity 2.3: Enabling forest governance mechanisms to secure biomass fuel supply of end-users – This sub-activity will encompass a comprehensive review of the existing data and processes in the forestry sector of BiH. The review will, apart from analyzing existing situation in the forestry sector in BiH, compare it to the existing EU mechanism which have proved to be successful and efficient.

Sub-Activity result: The activity result should include a written review of the current forest governance mechanisms for FBiH/Cantons and RS, based on the current practices within the forest management sector of B&H, their comparison with the EU recommendations and successful practices and concrete recommendations for improvement of the mechanisms to ensure increase in the wood biomass supply and easier access and its utilization. It will additionally include a series of events related to presentation of governance mechanisms to the multidisciplinary coordination body and advocacy for inclusion of its recommendations into the relevant legal regulations.

Sub-Activity 2.4: Public campaign on wood biomass utilization and potential in BiH - Conducting a public campaign on wood biomass utilization potentials in BiH, its effects on environment and generation of green jobs. The sub-activity includes organization of 5 promotional events in 5 most populated cities in BiH (Banja Luka, Bijeljina, Mostar, Sarajevo and Tuzla). Additionally, the activity would be supported by a well-planned project based social networking, including networking of project results and sharing of promotional materials through well-known social networks (Facebook, YouTube, Twitter, etc.).

The sub-activity should result with the following:

- *Minimum 2,000 persons reached by the project based social networking by the end of the project*

⁵ During project inception and project closer phase a research will be conducted to analyze wood biomass quality on BiH's market and project (output 1.2.) impact. Beside the suppliers wood biomass quality also the quality of currently used biomass by the end users will be checked and compared.

- 3 types of promotional materials (minimum 1,000 pcs each) printed and distributed until the end of the project.
 - At least 2,500 individuals are reached by minimum 5 promotional events held in 5 different cities (2016 – 300 persons, 2017 – 700 persons, 2018 – 1,500 persons).
- **Result/Activity 3: Number of implemented infrastructural RES projects increased due to the project's newly developed business models and financial schemes for investment in biomass** - the output will target completion of at least four RES infrastructure projects implemented until the end of 2020, as well as at least another 6 RES infrastructure projects implemented based on newly developed financial schemes until 2020.

To accomplish this output, it is planned to conduct the following activities:

Sub-Activity 3.1. Development of BiH tailored biomass related business models – Development of BiH tailored biomass related business models (PPP (Public private partnership), ESCO (Energy service companies), joint venture (JV) and energy procurement construction (EPC) including development of a final roadmap (based on the existing processes and operating methods of Environmental Funds of FBiH and RS) to support wood biomass projects in Environmental Funds (EFs) from the initial phase to the project implementation and the identification of applicable and eligible support from Environmental Funds, such as local co-financing providers for various types of thermal energy generating business models.

Sub-Activity result: This sub-activity will result in a comprehensive study on biomass models and current financial mechanisms for wood biomass projects and a related roadmap document on steps for their utilization and implementation, consulted, finalized and presented to at least to 20 stakeholders (private and public project developers in BiH).

Sub-Activity 3.2: Introduction of biomass-related supporting financial mechanisms in FBiH and RS – Development of a Study on introducing financial mechanisms for wood biomass projects within EFs in FBiH and RS. This will include the engagement of consultant to provide technical assistance to drafting and the adoption of internal acts, methodologies and project evaluation criteria within the EFs standard operating processes. These activities would aim at official adoption of financial mechanisms for wood biomass projects within EFs in FBiH and RS.

Sub-Activity result: Study on introduction of financial mechanisms for wood biomass projects with relevant internal acts for the Funds for Environmental protection.

Sub-Activity 3.3: Establishment of a Biomass Innovation Centre for private sector representation through the existing Biomass Association in BiH – The center would represent a branch of the existing Biomass Association of BiH focused on knowledge and support in the development of an expanding clean technology industry. It would be established through the existing Biomass Association of BiH, within their activities and assistance, targeting the private sector members as the main contributors and general public (including educational institutions) as beneficiaries of knowledge sharing. The number of members would depend on those who can provide its product or service for a knowledge sharing cause. Considering the number of biomass companies that can offer their value to this center, the expected number of participants is 10. However, number of members who might benefit from regular visits to the center, demonstration activities (e.g. to students) can increase this number. Potential additional members in this sense could be high schools, faculties, media, environmental service companies etc.

Sub-Activity result: The sub-activity will result in interest bodies/groups having an opportunity to use benefits of a newly established Biomass Innovation Centre, serving as a baseline platform to support projects that transform biomass into fuels and high-value products; including education, technical marketing, advocacy and research that spans from the forest to the marketplace.

Sub-Activity 3.4: Implementation of model infrastructure projects through the concept of a "green package" with the support of the Czech Development Agency - At least five RES infrastructure projects (sample "green package", preferably biomass boiler heating system, potentially also solar panels and LED lighting) will be introduced to CzDA by UNDP every year of implementation (2016 – till September; till April of each following year).

Sub-Activity result: Five prioritized RES infrastructure projects for further support by CzDA every year of implementation including basic data about these projects and at least four supported RES projects, directly financially supported by CzDA, with financial contribution of other donors.

Sub-Activity 3.5: Implementation of standard infrastructure projects through the concept of a "green package", using specified business models – Based on the experience of the implementation of the model infrastructure projects, developed business models and established financial mechanisms, at least another six RES infrastructure projects should be implemented until 2020.

Sub-Activity result: Additional six RES infrastructure projects implemented by 2020 as support from Environmental Fund's in BiH, proving sustainability of project activities after project completion and increasing B&H RES portfolio contribution.

The sources of verification for all three outputs will include variety of documents, policy related (policy review documentation, modified legislation or action plans), project related (annual project reports, minutes from meetings and/or event reports) or formal reports by relevant institutions (including relevant ministries and/or entity funds for environmental protection).

➤ **Target groups, beneficiaries**

The overall Objective of the project encompasses local population of B&H (as a whole) as the target group. However, the target groups depend on the type of results and sub-activities of the project. Policy, governance and baseline data activities of the project mainly target policy makers of the energy and forestry sector, the scientific community and the end-beneficiaries. Planned public campaigns aim at raising awareness of the BiH population and promotion of wood biomass use.

The **target groups** could also be divided into direct and indirect ones. The direct target groups are:

Result 1 (Developed policy for sustainable biomass utilization in BiH reflected to the legislation and use in practice):

Direct beneficiaries – Federal Ministry of Energy, Mining and Industry, Federal Ministry of Agriculture, Water Management and Forestry, Ministry of Agriculture, Forestry and Water Management of Republika Srpska, MoFTER, Department for Agriculture, Forestry and Water Management of Brcko District.

Indirect beneficiaries – local communities, private sector, academia, general public.

Ministries responsible for energy in FBiH, forestry in FBiH and RS and Department for Agriculture, Forestry and Water Management of BD – The Federal Ministry of Energy, Mining and Industry will be directly involved in development of draft Law on heating energy of FBiH. Moreover, abovementioned ministries, including the ones responsible for forestry, shall also actively contribute to the identification of gaps in the current FBiH and RS legislation, provide comments on developed gap analysis and the adoption of policy review document's recommendation. Ministry of Agriculture, Forestry and Water Management of Republika Srpska and Department for Agriculture, Forestry and Water Management of Brcko District will be directly involved in development of integral plan for biomass utilization in public and private forests for two selected localities (in RS and BD)

MoFTER – Overall coordination within BiH entity and state level institutions and reporting to multilateral binding agreements on energy, environment and forestry, and specifically to the Energy Community Secretariat.

Local communities – Will benefit from policies adopted on entity level and its resulting increase in investments into local energy infrastructure and increased utilization of wood biomass.

Private sector – Will benefit from policies adopted on entity level and its resulting increase in investments into local energy infrastructure and increased utilization of wood biomass.

Academia – Active participation in order to provide comments and suggestions on policy gaps in BiH.

General public - Will benefit from policies adopted on entity level and its resulting increase in investments into local energy infrastructure and increased utilization of wood biomass and thus better air quality within urban areas, increased employment (green jobs), as well as improved services of local communicates due to better working/living conditions.

Result 2 (Quality and availability of the wood biomass energy carrier for heating purposes increased due to the adoption and use of improved methods of biomass processing):

Direct beneficiaries – Federal Ministry of Agriculture, Water Management and Forestry, Ministry of Agriculture, Forestry and Water Management of Republika Srpska, Cantonal line ministries, forestry public companies, general public, MoFTER.

Indirect beneficiaries – Academia and private sector, relevant Ministries and institutions for the biomass sector.

Forestry Ministries in FBiH and RS – Active participation in the multidisciplinary coordination body, contribution to the development of Mapping of BiH biomass exploitation and utilization potential (existing input data) and forest governance mechanisms.

Cantonal line ministries in FBiH and forestry public companies in FBiH and RS - The role of the Cantonal Ministries in FBiH, as well as forestry public companies in FBiH and RS, is to participate in the development of forest governance mechanisms and to provide recommendation for its further implementation.

Relevant Ministries and institutions for the biomass sector (Environment, Forestry, Energy, Finance, MoFTER, RES Agencies, Environmental Funds, Academia, NGOs and the private sector) – Active participation in the multidisciplinary coordination body (lead by MoFTER and forestry Ministries of FBiH and RS).

MoFTER – Overall coordination within BiH entity and state level institutions and reporting to multilateral binding agreements on energy, environment and forestry, and specifically to the Energy Community Secretariat, and Active participation in the multidisciplinary coordination body.

Private sector – Will benefit from efforts of relevant institutional stakeholders to develop an efficient and sustainable biomass value chain in BiH (consolidating and enabling the biomass market in BiH).

Academia – Active participation in the multidisciplinary coordination body and contributions to the development of forest governance mechanisms and mapping of biomass exploitation and utilization potential.

General public - Will benefit from enabled biomass environment and its resulting increase in investments into local energy infrastructure and increased utilization of wood biomass and thus better air quality within urban areas, increased employment (green jobs), as well as improved services of local communities due to better working/living environment. Moreover, the general public will be the key target of the public campaign on wood biomass utilization and potential in BiH, aiming to increase awareness and understanding.

Result 3 (Number of implemented infrastructural RES projects increased due to the project's newly developed business models and financial schemes for investment in biomass):

Direct beneficiaries – Environmental Funds of FBiH and RS, Biomass Association of B&H, local communities (public sector building end-users), MoFTER.

Indirect beneficiaries – construction and mechanical engineering equipment sector (private sector) and investors, Ministry of Spatial Planning, Construction Industry and Ecology of Republika Srpska, Federation Ministry of Environment and Tourism, general public.

Environmental Funds of FBiH and RS – The adoption of financial mechanisms focusing on fuel-switch projects (fossil to biomass) and its enforcement by providing regular financing options for investing into fuel-switch projects in both entities based on the polluter-pays mechanism source of finance in FBiH and RS.

Biomass Association of BiH – The role of the Biomass Association is to take responsibility (ownership), while being supported by the Project, in establishment of a Biomass Innovation Centre for private sector representation, i.e. to facilitate, coordinate, and organize and liaison with the private biomass sector (equipment producers, project developers, energy carrier producers, etc.).

Local communities – At least nine local communities in BiH (to be selected during project implementation) will directly benefit from RES infrastructure projects.

MoFTER – Overall coordination within BiH entity and state level institutions and reporting to multilateral binding agreements on energy, environment and forestry, and specifically to the Energy Community Secretariat.

Environmental Ministries in FBiH and RS – Monitoring of reduced GHG emission in BiH.

Construction and mechanical engineering equipment sector (private sector) and investors – Generating green jobs through enabled investments and financial mechanisms in fuel-switch projects in BiH.

General public with particular focus on vulnerable and socially excluded population - will benefit from resulting increase in investments into local energy infrastructure and increased utilization of wood biomass and thus better air quality within urban areas, increased employment (green jobs), as well as increased services of local communities due to better working/living environment.

➤ ***Resources Required to Achieve the Expected Results***

The main role of UNDP within the project is to ensure a correct and viable project document, to facilitate and coordinate partners in the process, and to ensure smooth management and coordination of all of the activities agreed in the field. The representatives of UNDP Biomass project would be responsible for preparation of required background information for each activity, provision of the coordination of the project and particularly provision of implementation of activities by local partners and stakeholders (including public buildings representatives selected in the actual project formulation phase). Therefore, following personal costs are included: management, administrative / auxiliary personnel (technical assistant) and general management services.

Furthermore, the project plans to implement the activities of installation of at least four infrastructure projects through the concept of a "green package". It is predicted to implement at least another six projects as support from EFs in BiH, proving sustainability of project activities after project completion and increasing BiH RES portfolio contribution. Infrastructure projects shall be focused preferably on the biomass boiler heating systems, potentially solar panels and LED lighting. Selection of delivered technology must be consulted and approved by local partners (beneficiaries, other involved bodies) based on their needs as specified in the identification phase of the project and its formulation.

Identification of the projects will be performed by Energy Management Information System (EMIS) web based application for tracking, analyzing and evaluating energy and water consumption in public sector buildings. The application as such represents a necessary tool for energy management. It has been introduced by UNDP Green Economic Development (GED) project. Furthermore, UNDP will secure matching funds for additional energy efficiency infrastructure measures due to the partnership of this project with GED UNDP project.

Selected Contractor must consider the possibility of ensuring maintenance and possibility of basic repair on site or in the region when choosing the appropriate technology. Delivered technological units must be characterized by low investment and operating costs for compliance with local legislative requirements, and the requirements of the EU. All documentation of the delivered and installed technology, operational orders and other related materials will be handed over to the beneficiaries of the project outputs in the local language. Additionally, they will be processed in a manner that is most intelligible for responsible employees. Adequate guarantee and post-guarantee service must be ensured.

➤ **Partnerships (stakeholders' engagement)**

The role of UNDP would be to engage the representatives of responsible ministries and other government institutions in putting extra effort into informing the public and raising awareness of citizens as potential end users of energy based on renewable resources by developing an appropriate set of information instruments of environmental policies, apart from other field activities.

Following institutions make key stakeholders of the project:

State level:

- Ministry of Foreign Trade and Economic Relations (Department for secondary energy and energy efficiency).

FBiH level:

- Federal Ministry of Energy, Mining and Industry, as the umbrella ministry responsible for energy issues.
- Federal Ministry of Agriculture, Water Management and Forestry, as a ministry responsible, among other things, for forestry as well;
- Federal Ministry of Spatial Planning, responsible, among other things, for channeling long-term development of the use of natural resources; and
- Federal Ministry of Environment and Tourism.

At the FBiH level, there is also the Regulatory Energy Commission of the Federation of BiH and the Chamber of Commerce of the Federation of BiH.

As for Republic of Srpska, the ministries with responsibilities which, among other things, refer to the issues of using forest biomass are:

- Ministry of Industry, Energy and Mining;
- Ministry of Agriculture, Forestry and Water Management;
- Ministry of Spatial Planning, Construction Industry and Ecology.

At the level of Republic of Srpska, there is also the Regulatory Energy Commission of Republic of Srpska and Chamber of Commerce of Republic of Srpska.

Additionally, Biomass innovation centre that will be developed within the existing Biomass Association in BiH represent an important stakeholder for the implementation of the project. The centre would represent a branch of the existing Biomass Association of BiH focused on knowledge and support in the development of an expanding clean technology industry. It will consist of private sector representatives that can provide its products or services for a knowledge sharing cause and beneficiaries who might benefit from regular visits to the centre.

The following is the list of other stakeholders and beneficiaries who will contribute to different project activities or shall directly or indirectly benefit from different interventions.

- Municipalities and cities;
- Local public institutions;
- Non-governmental organisations (NGOs) and community centers;
- Local and regional entrepreneurs (private companies), biomass producers;
- Forestry – public companies;

- Research and development institutes and faculties;
- Biomass association members;
- BiH and Czech consultants and experts.

At the level of BiH, Ministry of foreign trade and economic relations, and its Department for secondary energy and energy efficiency, is the main stakeholder and beneficiary. At the entity level, the ministries responsible for energy, forestry and environmental issues are the main intended beneficiaries.

The assistance towards the stakeholders in terms of the development of policy frameworks and creating capacities have been identified as necessary by the beneficiaries, to set grounds for the future implementation of the project. The stakeholders have thus far been engaged in all phases of preparation of the project while the principal ones are expected to take active roles in the Project Board to steer the project implementation parallel to circumstances related to this thematic area in BiH.

Special significance is given to stakeholders related to policy and forestry segments, as activities would be based on initial policy baselines.

It is important to emphasize that the selection procedure for the public buildings, hence directly affected municipalities, will be undertaken through mutual process of UNDP and CzDA, through assistance of the data collected through the EMIS system.⁶

➤ ***Transversal themes: gender equality, social inclusion, human rights, disaster risk reduction***

Gender equality has been mainstreamed within the project implementation strategy. Attention will be given to ensuring gender-sensitive design of regulatory and policy frameworks, as well as assuring that both men and women benefit equally from services, funding, employment and capacity development opportunities supported by the project. Women will be encouraged to participate equally in activities led by the project. Gender disaggregated data would be available after initial selection of public buildings where direct and indirect beneficiaries in terms of pupils/children would be analyzed and recorded. Recommendations on how to improve gender dimensions and gender mainstreaming related to wood biomass, and priority actions in this area will be highlighted within the appropriate segments of the studies which shall be compiled through project activities; or through events which are to be held and promoted.

Although the Project does not directly deal with human rights-related matters, it envisages participatory engagement of a wide range of stakeholders with various interests related to wood biomass potential. Several activities are dealing with participatory engagement aimed at knowledge increasing. These are: training modules on wood biomass business models and management to local communities and private companies, study tour for relevant policy makers to Czech Republic, establishment of inter-sectoral cross-entity coordination body and establishment of a Biomass Innovation Centre. Furthermore, the Project will apply a top-down and bottom-up approach to capacity development and policy design, by engaging all government levels, as well as the private sector, non-governmental organizations, citizens and media. In addition, among the main focuses of the Project is to contribute to sectoral reforms which are driven by B&H's European aspirations, namely in the environment field that takes large part of the EU acquis. Finally, proper attention has been devoted to fostering economic growth and contribution to job creation in Bosnia and Herzegovina within this Project.

➤ ***Innovation and untraditional approaches, as well as potential link with the Accelerator Lab***

Biomass project will apply innovative approaches in accomplishment of following expected results of the project:

Development of the Guide on best practices and recommendations to increase utilization of wood biomass – this will be a first document of this kind in BiH, developed in cooperation with relevant stakeholders, with hands-on advices and approaches on how to increase utilization of wood biomass and covering the aspects of forest ecology, forest management planning, forest utilization practices, wood biomass market and stakeholders engagement.

Establishment of Joint Bioenergy Sector Program by USAID EIA, UNDP, GIZ under the auspices of the Ministry of Foreign Trade and Economic Relations of B&H. Joint approach and cooperation of: Biomass Energy for Employment and Energy Security - Follow Up Project (UNDP – project supported by the Czech Development Agency), Promotion of Renewable Energy Sources in BiH (GIZ) and Energy Investment Activity (USAID) projects will enhance the overall efficacy

⁶ EMIS is a web based application for tracking, analyzing and evaluating energy and water consumption in public sector buildings. Application as such represents necessary tool for energy management and has been introduced by UNDP Green Economic Development (GED) project through the environmental funds.

of efforts to improve and support utilization and production of wood biomass by avoiding unnecessary overlapping in project activities.

Mapping of BiH biomass exploitation and utilization potential will provide a basis for evidence-based decision making and planning on RES utilization for energy purposes in BiH.

Establishment of a Biomass Innovation Centre for private sector representation through existing Biomass Association in BiH - will serve as a baseline platform for supporting the implementation of planned infrastructure projects that transform biomass into fuels and high-value products; including education, technical marketing, advocacy and research that spans from the forest to the marketplace.

➤ ***Synergies with other on-going or planned interventions***

As abovementioned, this project is in synergy with the Green Economic Development project, as they both are aimed at CO₂ emission reductions by supporting infrastructure projects in public buildings such as schools and hospitals. Additionally, implementation of this project will rely on usage of EMIS application (web based application for tracking, analyzing and evaluating energy and water consumption in public sector buildings) that has been introduced by GED project. As aim of this projects is to create new employment opportunities and income generation from wood biomass as one of the most promising natural resource of BiH, this project is in linkage with Local Integrated Development (LID) and Municipal Environmental and Economic Governance project (MEG) as well.

As this project relies on achievements of robust portfolio of activities of UNDP BiH in the segment of wood biomass that have been started at 2009, it has strong foundation in terms of following the requirements of broader programs and initiatives.

Establishment of partnership with the CzDA. Leaning on the previous very successful cooperation with the CzDA and contributions provided to the Biomass project since 2013; including strategic objective of CzDA in the segment of wood biomass, the cooperation between the two partners is expected to bring added value to the development of the appropriate mechanisms and enhance positive outcomes of project implementation. The cooperation is aimed at co-financing between the partners, whereas partial allocation of funds is aimed to be transferred to UNDP for direct project implementation and another part is to be co-financed by direct tendering of infrastructure projects through the CzDA. Moreover, upon signing of contract between UNDP and the CzDA, guidelines on visibility norms shall be developed and agreed on in order to maximize publicity of the CzDA / Czech Republic. Such cooperation represents crucial point for enhancing the capacities of BiH decision makers relevant for the wood biomass, needed for EU accession process, by supporting them with first-hand experience and lessons learned from the successful Czech experience.

Establishment of Joint Bioenergy Sector Program by USAID EIA, UNDP, GIZ under the auspices of the Ministry of Foreign Trade and Economic Relations of B&H. As three most active agencies in field of bioenergy and wood biomass in B&H, UNDP, GIZ and USAID have agreed to identify together the key areas for improvement of the bioenergy sector in B&H and coordinate their activities in the biomass sector by establishing the joint initiative in this field. Following three projects are involved in this joint initiative:

- Biomass Energy for Employment and Energy Security - Follow Up Project (UNDP – project supported by the Czech Development Agency)
- Promotion of Renewable Energy Sources in BiH (GIZ)
- Energy Investment Activity (USAID)

Joint approach will enhance the overall efficacy of efforts to improve and support utilization and production of wood biomass by avoiding unnecessary overlapping in project activities.

Creation of a multidisciplinary coordination body and contribution to the development of an efficient and sustainable value chain management. This body should consist of representatives of line Ministries, RES Agencies, Academia and the private sector. The benefits would be reflected in recognition of importance of multi-stakeholder participation within the biomass sector, which would in turn provide strengthening of the sector itself. Creation of a platform with all key stakeholders involved will ensure equal ability to express views and expert opinions, share lessons learned and direct the different thematic areas of the project towards successful and efficient implementation.

Introduction of biomass-related supporting financial mechanisms in FBIH and RS - considering that the results of this sub-activity include provision of technical assistance to the drafting and the adoption of internal acts, methodologies and project evaluation criteria within the standard operating processes of Funds for Environmental Protection, the ownership of this activity would be secured as these are necessary for the Funds' operations within the area of wood biomass. Taking into consideration the previous cooperation with the Funds for environmental protection and their expressed interest and needs for these activities, securing ownership for continuation of these activities beyond project

duration are not questioned. Considering the overall objective of this project, introduction of such financial mechanisms represents a key precondition for fostering the increasing of wood biomass utilization.

Establishment of a Biomass Innovation Centre for private sector representation through existing Biomass Association in BiH - considering the growing need of the private sector for support in the development of an expanding clean technology industry, the ownership of these partners is expected to be in line with these needs. Additionally, considering the continuous existence of the Biomass Association since its establishment several years ago, as an outcome of UNDP Biomass project, it is expected that such partnership would continue to aim at identification of biomass supply opportunities in the forestry sector; contributing to the development of effective policies and best practices; establishing a baseline platform in order to support projects that transform biomass into fuels and high-value products; including education, technical marketing, advocacy and research that spans from the forest to the marketplace – all generally contributing to the current project activities and results.

Establishment of Biomass Innovation Centre will serve as a baseline platform for supporting the implementation of planned infrastructure projects that transform biomass into fuels and high-value products; including education, technical marketing, advocacy and research that spans from the forest to the marketplace.

➤ **Risks and Assumptions**

The risks of the project are relatively low in regard to the likelihood to affect the follow-up project, as majority of them have been identified and buffered in the past. The following ones have been identified:

- State/entity institutions not being ready to cooperate
- Lack of good cooperation between local participants and partners
- Not enough time for the project implementation
- Lack of funds by the CzDA for implementation of infrastructure projects

These risks have been mapped in detail and presented in the Annex 3 (Risk Analysis).

The activities related to implementation of the Biomass project, within the past six years have proven that close coordination of activities with all relevant stakeholders/donors/beneficiaries, timely information sharing and constant communication severely reduces the identified risks and supports the positive dynamics of project related assumptions and activities thereof.

The identified assumptions (and their constant monitoring) will ensure that the follow-up project ensures its sustainability and planned long-term effects.

➤ **South-South and Triangular Cooperation (SSC/TrC)**

As previously stated, this project represents a continuation of cooperation between UNDP and CzDA. Since role of UNDP CO in B&H in project implementation will be to act as knowledge broker, builder of capacities and facilitator of exchanges that are driven primarily by programme countries, project implementation will be based upon cooperation of Bosnia and Herzegovina and Czech Republic. As an add-on, these two countries share similar socio-economic background of socialistic countries. It is believed how similar heritage could alleviate the process of transferring Czech knowledge and experience on EU accession process related to targets of renewable energy and its adaptation to the requirements of EU in this sense, which represents key outline of the project. Such approach in project implementation would contribute to an effort to minimize economic and non-economic barriers to more transparent, efficient and effective exchange that engages both B&H and Czech Republic as well as non-governmental entities. In case of this project, it will be achieved through knowledge sharing, enabling harmonization of policies, legal frameworks and regulations of B&H with EU requirements by following the successful Czech experience and, finally, strategic funding and technical cooperation related to the infrastructure projects through the concept of a “green package”.

➤ **Knowledge management**

Project sub-activity 2.4 (Public campaign on wood biomass utilization and potential in BiH) is particularly design to increase knowledge and awareness on biomass utilization together with increasing of the project visibility. The campaign shall include development, design and printing of promotional materials and organization of attractive promotional program or competition.

Onward, it is planned that project will result with various publications as follows:

- Study on identification of policy gaps within energy and forestry sector in segment of wood biomass in Bosnia and Herzegovina;
- detailed instructions for implementation of selected recommendations from the abovementioned Study on identification of policy gaps within energy and forestry sector in segment of wood biomass in Bosnia and Herzegovina;
- Guide on best practices and recommendations to increase utilization of wood biomass;
- Integral plans for utilization of wood biomass in public and private forests for two selected localities (in RS and Brčko District)
- increased knowledge of at least 10 policy makers that will be evaluated through the method of pre- and post testing;
- increased knowledge of at least ten private sector representatives and at least ten targeted local communities on the topics of wood biomass business models and management;
- creation of a platform with all key stakeholders who will be equally able to express their views and opinions, share lessons learned and direct the different thematic areas of the project toward successful and efficient implementation;
- comprehensive study related to wood biomass exploitation and utilization in B&H, including its quality improvement potentials and options together with detailed map of biomass potentials in B&H. Within this activity, a widely-disseminated publication will be produced;
- written review of the current forest governance mechanisms for FBiH/Cantons and RS. It will additionally include a series of events related to presentation of governance mechanisms to the multidisciplinary coordination body and advocacy for inclusion of its recommendations into the relevant legal regulations;
- comprehensive study on biomass models and current financial mechanisms for wood biomass projects and a related roadmap document on steps for their utilization and implementation presented to at least 20 stakeholders (private and public project developers in BiH);
- study on introduction of financial mechanisms for wood biomass projects with relevant internal acts for the Funds for Environmental protection.

➤ **Use of existing country systems, mechanisms and frameworks**

The Project will deploy numerous measures to achieve cost effectiveness. In terms of procurement, outsourcing of services will be based on a transparent and competitive process, as well as on the value-for-money principle. The Project will seek to achieve economy of scale in investments by combining, where possible, financial resources with other on-going interventions in target localities, or public funds of higher government levels.

Moreover, all training and capacity development assistance will be delivered by clustering partner local, cantonal, entity and state governments, so as to ensure economy of scale. The Project will seek to utilize in-kind contribution from partners in the form of hosting venue, hospitality and transport costs for events and training. For further cost efficiency, the Project will make use of existing relevant training programmes, thus reduce cost for training programme design.

➤ **Sustainability and Scaling Up**

To achieve sustainability and scaling up of this project, it is necessary to assure creation and implementation of adequate financial mechanisms, establishment of appropriate strategic and legislative frameworks and enabling environment for recognizing and supporting of biomass utilization.

As overall objective of this project strives to contribute to the long-term reduction in CO₂ emissions in BiH, scaling up strategy of this project is related to the aim to have an overall BiH tCO₂ emissions per capita reduced by 3% by the year

2030. This target is in line with BiH's officially submitted Indented Nationally Determined Contributions (INDC) report on GHG, in accordance with the United Nations Framework Convention on Climate Change (UNFCCC).

Need for scaling up has been already identified in previous wood biomass UNDP project. The previous project results have shown great benefits of biomass fuel-switch activities in public buildings, leading to reduction of costs for heating, increase of level of ambient (temperature) comfort in public buildings (usually hospitals and schools) as well as GHG emission reductions. This has brought the project team (and the stakeholders) to a conclusion that scale-up of these innovative solutions could be channelled through policy development (with support by adequate mechanisms of implementation-mostly financial).

Due to the new opportunities, which have surfaced and horizontal scanning, scale up has happened just recently in terms of prioritizing policy issues related to wood biomass which could bring long term (and sustainable) benefits to the country. It is expected that strong focus on policy issues related to wood biomass will lead to the overall scale up of wood biomass issues. Due to this, the revised project document has been prepared and new donor fund secured for its implementation until the year 2019. Furthermore, donor approved no-cost extension of the Project until August 2020.

More specifically, sustainability will be ensured by:

- a) **Creation of adequate public financial mechanisms for support to biomass projects, within the existing funds for Environmental Protection in FBiH and RS;**
- b) **Lay foundations within the legislative frameworks and governance mechanisms for relevant government and financial institutions to** i) monitor energy consumption and savings, ii) support RES targets iii) support the implementation of biomass projects; iv) ensure wood biomass availability, easier access and optimum exploitation;
- c) **Selection of public sector buildings/decision making process on investments** - Since not all public-sector buildings provide attractive and cost-effective financial results, it is very important that the three potential public sector buildings (infrastructure projects) are identified, analyzed and prioritized based on several technical, economic and environmental factors in order to justify the right investment decision. This will be ensured through the assistance of the EMIS system, already mentioned within this document;
- d) **Creation of an enabling environment for recognizing the benefits of the multidisciplinary coordination body and relevant branch activities** – Ensure that all relevant stakeholders from B&H are invited to participate within the meetings of the body. Provide an array of important biomass topics to be discussed jointly and to be supported through mutual and reciprocal efforts in solving issues, contributing with opinions or lobbying activities. Ensure that the benefits of this approach are recognized in facilitation of solving important matters and setting biomass issues higher on the policy makers' agenda. Once the benefits of a dialog are identified by all stakeholders, which will occur during the three-year project period, it will be of key interest to Ministries (Forestry and Energy) to continue with such a platform.
- e) Additionally, supporting the work of the already functioning Biomass Association in B&H through establishment of the new services of a **Biomass Innovation Centre**. The innovation center would offer the private sector and academia an innovative platform for promotion and educational services to exhibit their products and information. This in return would act as an incentive to promote the private sector's products and services to the wider public as well as to facilitate B2B networking among the wood biomass market stakeholders.

Moreover, currently, and throughout the Biomass project implementation period, various legislative processes will be on-going which are aligned and in favor of the project's sustainability and the creation of adequate measures in terms of sectors of forestry and energy.

IV. PROJECT MANAGEMENT

➤ Cost Efficiency and Effectiveness

The Project will deploy numerous measures to achieve cost effectiveness. In terms of procurement, outsourcing of services will be based on a transparent and competitive process, as well as on the value-for-money principle.

Additionally, the Project will seek to achieve economy of scale in investments related to the implementation of infrastructure projects through the concept of “green package” by matching funds that will be co-financed by another on-going UNDP project (GED project) for additional energy efficiency infrastructure measures. For further cost efficiency, the Project will make use of existing relevant UNDP databases (EMIS) in project identification phase for model infrastructure projects, thus reducing additional costs related to this phase of project implementation.

Additionally, this project is a part of Joint Bioenergy Sector Program developed by UNDP, GIZ and USAID offices in B&H. Joint program will increase cost efficiency and effectiveness through its effort to avoid overlapping of project activities as well as intentions to maximize the efficient use of available budgets. Moreover, implementation of three projects involved in Joint program will be monitored by the project teams of three agencies and it will increase the overall quality and effectiveness of implemented activities.

Moreover, the Project will seek to utilize in-kind contribution from partners in the form of hosting venue and hospitality.

➤ Project Management

The project will have combined approach in terms of having specific geographic locations for implementation of three activities. On the other hand, rest of activities are not site-specific since they will result with studies, reports, analysis etc.

Site-specific activities are training modules and study tour to Czech Republic both aimed at creating, understanding and strengthening capacities of policy makers and biomass value chain stakeholders. Trainings for local governments will be tailored made for specific local governments that will be chosen based on their forest cover. Based on our knowledge, it is expected that most of the trainings will be organized in the central part of B&H as this is the most forested part of the country.

Onward, promotional activities will be particularly designed for 5 most populated cities in BiH (Banja Luka, Bijeljina, Mostar, Sarajevo and Tuzla). Finally, implementation of model infrastructure projects through the concept of a “green package” demands for identification of exact locations for its implementation. Site selection will be conducted as a specific phase within implementation of this project activity. Such an approach will not only ensure territorial synergies between this and GED project, but it will also match financial resources in terms of increasing energy efficiency of selected objects.

When it comes to the number of physical project offices, project implementation will be managed in the UNDP CO for BiH which is in the UN House in Sarajevo.

As concerns arrangements for dedicated or shared operations support, as previously stated, this project will be implemented in cooperation between UNDP and CzDA. UNDP will be responsible for implementation of the soft part of the project (Results 1 and 2) while the implementation of the third output will be coordinated among the implementing partners. Concretely, CzDA will organize tendering of “green package” works together with their commissioning and supervision while UNDP will provide information related to selection of sites for implementation of infrastructure projects. By that, this project will have a collaborative arrangement with UNDP GED project.

As one of the mechanisms established for supervision and monitoring of project implementation, Project board is a key partnership for assuring the achievement of expected results. The reason for such important role of this body lies in its structure. It is consisted out of the representatives of the responsible ministries as follows: Ministry of Foreign Trade and Economic Relations of BiH; Ministry of agriculture, water management and forestry of FBiH and Ministry of agriculture, forestry and water management of RS. Furthermore, Project board will consist of representatives of implementing partners – UNDP and CzDA.

As an executive decision making body, Project Board will ensure smooth implementation of project activities and contribute to the better quality of project results. As Project Board members are representatives of key governmental institutions responsible for wood biomass issues, it is expected that it will have significant contribution in involvement of project results in strategic and legislative framework of this sector.

➤ **Project Monitoring, Evaluation and Reporting**

In accordance with UNDP’s programming policies and procedures, the project will be monitored through the following monitoring and evaluation plans: *[Note: monitoring and evaluation plans should be adapted to project context, as needed]*

➤ **Monitoring Plan**

Monitoring Activity	Purpose	Frequency	Expected Action	Partners (if joint)	Cost (if any)
Track results progress	Progress data against the results indicators in the RRF will be collected and analysed to assess the progress of the project in achieving the agreed outputs.	Quarterly, or in the frequency required for each indicator.	Slower than expected progress will be addressed by project management.	UNDP, CzDA	
Monitor and Manage Risk	Identify specific risks that may threaten achievement of intended results. Identify and monitor risk management actions using a risk log. This includes monitoring measures and plans that may have been required as per UNDP’s Social and Environmental Standards. Audits will be conducted in accordance with UNDP’s audit policy to manage financial risk.	Quarterly	Risks are identified by project management and actions are taken to manage risk. The risk log is actively maintained to keep track of identified risks and actions taken.	UNDP	
Learn	Knowledge, good practices and lessons will be captured regularly, as well as actively sourced from other projects and partners and integrated back into the project.	At least annually	Relevant lessons are captured by the project team and used to inform management decisions.	UNDP	
Annual Project Quality Assurance	The quality of the project will be assessed against UNDP’s quality standards to identify project strengths and weaknesses and to inform management decision making to improve the project.	Annually	Areas of strength and weakness will be reviewed by project management and used to inform decisions to improve project performance.	UNDP in cooperation with CzDA	
Review and Make Course Corrections	Internal review of data and evidence from all monitoring actions to inform decision making.	At least annually	Performance data, risks, lessons and quality will be discussed by the project board and used to make course corrections.	UNDP, CzDA, Project Board	
Project Report	A progress report will be presented to the Project Board and key stakeholders, consisting of progress data showing the results achieved against	Annually, and at the end of the project (final report)		UNDP	

	pre-defined annual targets at the output level, the annual project quality rating summary, an updated risk long with mitigation measures, and any evaluation or review reports prepared over the period.				
Project Review (Project Board)	The project's governance mechanism (i.e., project board) will hold regular project reviews to assess the performance of the project and review the Multi-Year Work Plan to ensure realistic budgeting over the life of the project. In the project's final year, the Project Board shall hold an end-of project review to capture lessons learned and discuss opportunities for scaling up and to socialize project results and lessons learned with relevant audiences.	Specify frequency (i.e., at least annually)	Any quality concerns or slower than expected progress should be discussed by the project board and management actions agreed to address the issues identified.	Project Board	

➤ **Evaluation Plan**

Evaluation Title	Partners (if joint)	Related Strategic Plan Output	UNDAF/CPD Outcome	Planned Completion Date	Key Evaluation Stakeholders	Cost and Source of Funding
Mid-Term Evaluation	UNDP-led in partnership with CzDA	SP Outputs 1.1. and 1.5.	UNDAF Outcomes 5 and 6	2017	Institutions at state, entity levels; local governments, private sector	
Final Evaluation	UNDP-led in partnership with CzDA	SP Outputs 1.1. and 1.5.	UNDAF Outcomes 5 and 6	2018	Institutions at state, entity levels; local governments, private sector	

➤ **Visibility and communication**

The UNDP Energy and Environment Sector Communication officer will ensure that all relevant project information and news are shared in a timely manner with the relevant audience.

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 project implementation through lessons learned. The project will identify, analyse, and **share lessons learned** that might be beneficial in the design and implementation of similar future projects.

RESULTS FRAMEWORK

<p>Intended Outcomes as stated in the UNDAF/Country Programme Results and Resource Framework: Outcome 5: By 2019, legal and strategic frameworks are enhanced and operationalized to ensure sustainable management of natural, cultural and energy resources.</p>											
<p>Outcome indicators as stated in the Country Programme, including baseline and targets: 5.1. Number of adopted or adjusted legal and strategic documents that are harmonized at State and/or Entity levels; Baseline: 0 (year 2013); Targets:12 (2019) 5.2. increase in percent of budgetary allocations directed to environmental protection and energy efficiency/renewable (climate change); Baseline: 0; Targets: 10% (YoY/gradual increase by 2019)</p>											
<p>Applicable Output(s) from the UNDP Strategic Plan: Output 1.1. National and sub-national systems and institutions enabled to achieve structural transformation of productive capacities that are sustainable and employment – and livelihoods-intensive. 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>Project title and Atlas Project Number: Biomass Energy for Employment and Energy Security – Follow Up Project, Bosnia and Herzegovina, 54633</p>											
EXPECTED OUTPUT	OUTPUT INDICATORS	DATA SOURCE	BASELINE		TARGETS (by frequency of data collection)						DATA COLLECTION METHODS & RISKS
			Value	Year	Year 1 (2016)	Year 2 (2017)	Year 3 (2018)	Year 4 (2019)	Year 5 (2020)	FINAL	
<p>Output Contribute to the improvement of the B&H local population living standard by long-term reduction of the CO₂ emissions.</p>	<p>Overall B&H tCO₂ emissions per capita reduced by 3% (8.70 tCO₂/capita) by 2030</p>	<p>BiH's officially submitted BUR (Biannual update report on greenhouse gas emissions, in accordance with UNFCCC) BiH's officially submitted INDC (Intended Nationally Determined Contributions update report on greenhouse gas emissions, in</p>	8.97 tCO ₂ /capita	1990	None	One (1) RES project implemented	One (1) RES project implemented	One (1) RES project implemented	One (1) RES project implemented	Four (4) RES projects implemented in BiH Contribution to the BiH's official target for emission reduction of 3%	<p>Data collection method: Analysis of Project infrastructure emission calculations and Reports Risks: Delays in implementation of infrastructural wood biomass projects</p>

⁷ UNDP publishes its project information (indicators, baselines, targets and results) to meet the International Aid Transparency Initiative (IATI) standards. Make sure that indicators are S.M.A.R.T. (Specific, Measurable, Attainable, Relevant and Time-bound), provide accurate baselines and targets underpinned by reliable evidence and data, and avoid acronyms so that external audience clearly understand the results of the project.

		accordance with UNFCCC) Project infrastructure emission calculations and Reports									
	Increase of BiH's RES portfolio in 2020 to Energy Community Secretariat's defined target for BiH	Government report (MoFTER), Energy Community Secretariat Annual Report	34%	2009	None	One (1) RES project implemented	One (1) RES project implemented	One (1) RES project implemented	One (1) RES project implemented	Four (4) RES projects implemented in BiH Contribution to the % of RES portfolio increased per the Energy Community Secretariat's defined target for BiH	Methods: EMIS/GED database analysis; analysis of wood biomass consumption by realized RES projects Risks: Unstable demand for RES projects in general / Unstable supply and quality of RES heating medium
	1.5.1.A.1.1 Number of new development partnerships with funding for improved energy efficiency and/or sustainable energy solutions targeting underserved communities/groups and women	Project implementation and technical reports	0	2015	One (1) partnership with GIZ and USAID EIA established Bioenergy Joint Initiative	At least four (4) meetings of Bioenergy Joint Initiative organized	At least four (4) meetings of Bioenergy Joint Initiative organized	At least four (4) meetings of Bioenergy Joint Initiative organized	NA	Improved legislative and institutional framework of bioenergy sector	Methods: Joint approach of UNDP, GIZ and USAID EIA in implementation of projects' activities to avoid overlapping Risks: Changes of relevant BiH's institutions stance toward wood biomass utilization
	2.5.1.A.1.1 Extent to which legal frameworks are in place for conservation, sustainable use, and access and benefit sharing of natural resources, biodiversity, and ecosystems	Policy review document Modified existing legislation, or new law/laws in RES problematic	Very partially	2015	None	One (1) policy review document prepared	One (1) comprehensive overview of policy and legislative framework amendment prepared	Tailored-made forest governance mechanisms in FBiH and RS are adopted	One (1) bylaw document on methodology for preparing integral plans for utilization	Legal frameworks at least partially ensure conservation, sustainable use, and access and benefit sharing of natural resources, biodiversity, and ecosystems	Methods: Analysis of documents Risks: Changes of relevant BiH's institutions stance toward wood biomass utilization

									on wood biomass in public forests in RS prepared		
5.1.a CPD: Number of strategies, policies, and budgets (adopted and) implemented to achieve low-emission and climate-resilient development objectives	Project implementation and technical reports	3	2015	None	NA	Internal acts, methodologies and project evaluative criteria prepared for EF of FBiH and RS	Tailored-made forest governance mechanisms in FBiH and RS are adopted	One (1) draft Law on heating energy in FBiH prepared	Internal acts, methodologies and project evaluation criteria for financing wood biomass projects by EF of FBiH and RS prepared	<p>Methods: Analysis of documents</p> <p>Risks: Changes of relevant BiH's institutions stance toward wood biomass utilization</p>	
Number of policy review documents adopted until the end of the project duration	Policy review document Modified existing legislation, or new law/laws in RES problematic	0	2015	None	One (1) forest biomass policy gap study prepared	None	None	NA	One (1) forest biomass policy gap study prepared	<p>Methods: Analysis of policy review document and existing legislation</p> <p>Risks: N/A</p>	
Number of planning, law and bylaw documents focused at better utilization of biomass for heating purposes	Law on heating energy of FBiH Integral plans for biomass utilization in public and private forests for two selected localities in RS and BD Bylaw document on methodology for preparing integral plans for utilization of wood biomass	None	2015	None	None	None	None	One (1) bylaw document on methodology for preparing integral plans for utilization of wood biomass	One (1) draft Law on heating energy in FBiH prepared One (1) bylaw document on methodology for preparing integral plans for utilization of wood biomass in public forests in RS prepared One (1) integral plan for biomass utilization from public forests prepared	<p>Methods: Analysis of prepared planning and legislative document</p> <p>Risks: Changes of relevant BiH's institutions stance toward wood biomass utilization</p>	

		in public forests in RS							biomass in public forests in RS prepared One (1) integral plan for biomass utilization from public forests prepared One (1) integral plan for biomass utilization from private forests prepared	One (1) integral plan for biomass utilization from private forests prepared	
	Number of studies on identification, quantification and mapping of biomass exploitation in BiH	Project implementation and technical reports	0	2015	None	None	None	One (1) study on identification, quantification and mapping of biomass exploitation in BiH	Bylaw documents at entity levels on roles and responsibilities of updating the atlas on	One (1) study on identification, quantification and mapping of biomass exploitation in BiH prepared and published in 300 copies Two (2) Bylaw documents at entity levels on roles and responsibilities of	<p>Methods: Analysis of project reports</p> <p>Risks: Changes of relevant BiH's institutions stance toward wood biomass utilization</p>

								prepared and published in 300 copies	biomass potentials prepared	updating the atlas on biomass potentials prepared	
	Number of forest governance mechanisms developed to support best practices and recommendations to increase utilization and quality of wood biomass	Project implementation and technical reports Research results / Project report related to increased quality of wood biomass in BiH	0	2015	None	None	One (1) study on reviews of current forest governance mechanisms including drafting of forest governance mechanisms for BiH (FBiH/Cantons and RS) prepared	At least two (2) forest governance mechanisms adopted in BiH (for FBiH and RS) during project implementation	None	One (1) study on reviews of current forest governance mechanisms including drafting of forest governance mechanisms for BiH (FBiH/Cantons and RS) prepared At least two (2) forest governance mechanisms adopted in BiH (for FBiH and RS) during project implementation	Methods: Analysis of project reports Risks: Changes of relevant BiH's institutions stance toward wood biomass utilization
	Number of RES infrastructure projects implemented until the end of 2018	MoFTER, UNDP and Entity funds for environmental protection reports and published data Project annual reports and project board meeting minutes	0	2016	None	One (1) RES project implemented	One (1) RES project implemented	One (1) RES project implemented	One (1) RES project implemented	Four (4) RES projects implemented in BiH	Methods: Analysis of project reports Risks: Changes of relevant BiH's institutions stance toward wood biomass utilization
	Number of another RES infrastructure projects implemented based on newly	MoFTER, UNDP and Entity funds for environmental protection reports and published data	0	2016						2020: Additional six (6) RES infrastructure projects implemented by 2020 as support from EFS proving sustainability	Methods: Analysis of project reports Risks: Changes of relevant BiH's institutions stance

	developed financial schemes until 2020	Project reports and project meeting minutes	annual and board minutes								of project activities after project completion and increasing BiH RES portfolio contribution	toward wood biomass utilization
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MONITORING AND EVALUATION

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

Monitoring Plan

Monitoring Activity	Purpose	Frequency	Expected Action	Partners (if joint)	Cost (if any)
Track results progress	Progress data against the results indicators in the RRF will be collected and analysed to assess the progress of the project in achieving the agreed outputs.	Quarterly, or in the frequency required for each indicator.	Slower than expected progress will be addressed by project management.	UNDP, CzDA	
Monitor and Manage Risk	Identify specific risks that may threaten achievement of intended results. Identify and monitor risk management actions using a risk log. This includes monitoring measures and plans that may have been required as per UNDP's Social and Environmental Standards. Audits will be conducted in accordance with UNDP's audit policy to manage financial risk.	Quarterly	Risks are identified by project management and actions are taken to manage risk. The risk log is actively maintained to keep track of identified risks and actions taken.	UNDP	
Learn	Knowledge, good practices and lessons will be captured regularly, as well as actively sourced from other projects and partners and integrated back into the project.	At least annually	Relevant lessons are captured by the project team and used to inform management decisions.	UNDP	
Annual Project Quality Assurance	The quality of the project will be assessed against UNDP's quality standards to identify project strengths and weaknesses and to inform management decision making to improve the project.	Annually	Areas of strength and weakness will be reviewed by project management and used to inform decisions to improve project performance.	UNDP in cooperation with CzDA	
Review and Make Course Corrections	Internal review of data and evidence from all monitoring actions to inform decision making.	At least annually	Performance data, risks, lessons and quality will be discussed by the project board and used to make course corrections.	UNDP, CzDA, Project Board	
Project Report	A progress report will be presented to the Project Board and key stakeholders, consisting of progress data showing the results achieved against pre-defined annual targets at the output level, the annual project quality rating summary, an updated risk log with mitigation measures, and any evaluation or review reports prepared over the period.	Annually, and at the end of the project (final report)		UNDP	

Project Review (Project Board)	The project's governance mechanism (i.e., project board) will hold regular project reviews to assess the performance of the project and review the Multi-Year Work Plan to ensure realistic budgeting over the life of the project. In the project's final year, the Project Board shall hold an end-of project review to capture lessons learned and discuss opportunities for scaling up and to socialize project results and lessons learned with relevant audiences.	Specify frequency (i.e., at least annually)	Any quality concerns or slower than expected progress should be discussed by the project board and management actions agreed to address the issues identified.	Project Board	
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Evaluation Plan

Evaluation Title	Partners (if joint)	Related Strategic Plan Output	UNDAF/CPD Outcome	Planned Completion Date	Key Evaluation Stakeholders	Cost and Source of Funding
Mid-Term Evaluation	UNDP-led in partnership with CzDA	SP Outputs 1.1. and 1.5.	UNDAF Outcomes 5 and 6	2017	Institutions at state, entity levels; local governments, private sector	
Final Evaluation	UNDP-led in partnership with CzDA	SP Outputs 1.1. and 1.5.	UNDAF Outcomes 5 and 6	2018	Institutions at state, entity levels; local governments, private sector	

MULTI-YEAR WORK PLAN ⁸⁹

EXPECTED OUTPUT	PLANNED ACTIVITIES	Planned Budget by Year					RESPONSIBLE PARTY	PLANNED BUDGET		
		Y1	Y2	Y3	Y4	Y5		Funding Source	Budget Description	Amount (USD)
Higher renewable energy share in the BiH energy mix	Result/Activity 1: Responsible ministries are supported in development and adoption of strategic framework for sustainable biomass utilization	10,643	76,876.04	42,883.71	45,436.58	22,529.57	UNDP	CzDA	71300 Local Consultant	66,497.03
									71600 Travel	16,648.72
									72100 Contractual Services-Companies	93,016.44
									72300 Materials & Goods	243.01
									72400 Communic & Audio Visual Equip	596.99
									74200 Audio Visual&Print Prod Costs	6,027.5
									74500 Miscellaneous Expenses	1,143.5
									75100 Facilities & Administration	13,028.00
									75700 Trainings, Workshops and Conference	1,300.00
									76100 Foreign Exchange Currency Loss	-37.96
	Sub-Total for Activity 1									198,368.9
	Result/Activity 2: Quality and availability of the wood biomass energy carrier for heating purposes increased due to the adoption and use of improved methods of biomass processing	2,061	45,046.92	66,503.22	36,453.72	7,272.72	UNDP	CzDA	61100 Salary Costs - NP Staff	14,287.05
									62100 Recur Payroll Costs - NP Staff	4,391.40
									63500 Insurance and Security Costs	1,958.95
64100 Staff Mgmt Costs-NP Staff									293.71	

⁸ Cost definitions and classifications for programme and development effectiveness costs to be charged to the project are defined in the Executive Board decision DP/2010/32

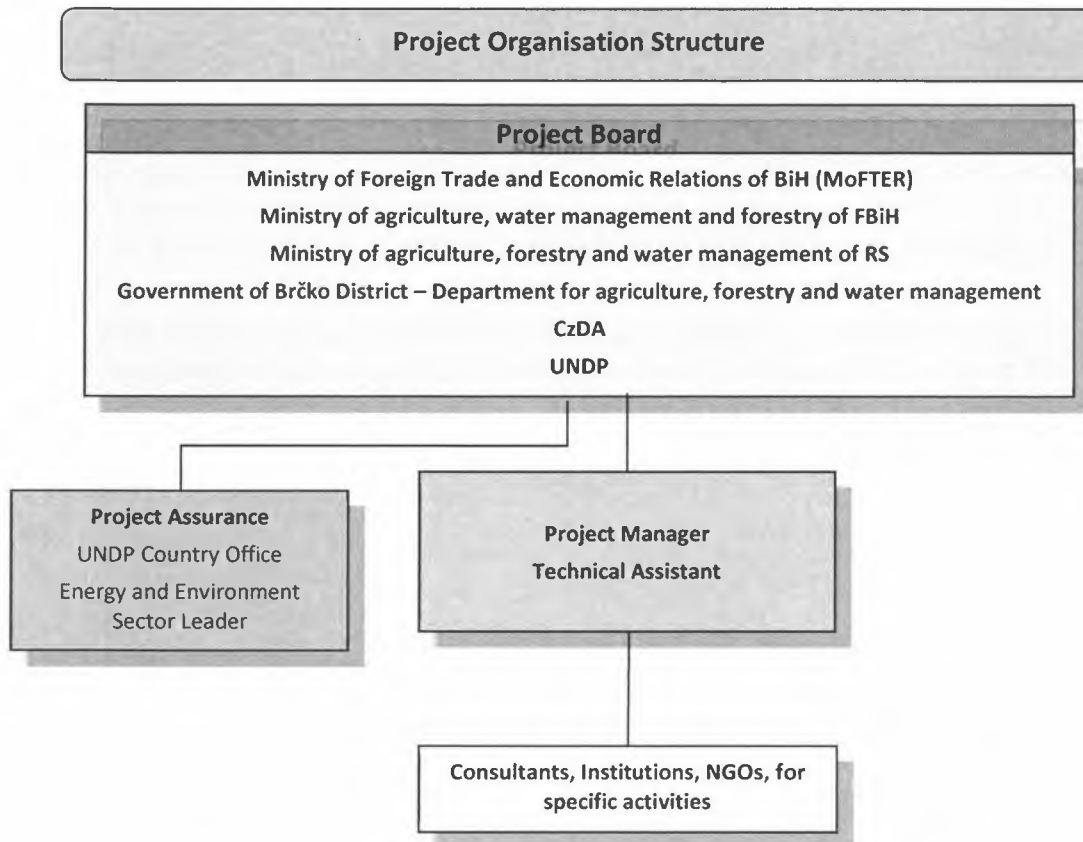
⁹ Changes to a project budget affecting the scope (outputs), completion date, or total estimated project costs require a formal budget revision that must be signed by the project board. In other cases, the UNDP programme manager alone may sign the revision provided the other signatories have no objection. This procedure may be applied for example when the purpose of the revision is only to re-phase activities among years.

									64300 Staff Mgmt Costs - IP Staff	209.86
									65100 After Service Insurance	1,494.91
									71300 Local Consultants	72,713.25
									71400 Contractual Services - Individ	4,758.79
									71600 Travel	9,821.08
									72100 Contractual Services - Individual	30,926.41
									72300 Materials & Goods	39.48
									72400 Communic & Audio Visual Equip	178.50
									72500 Supplies	294.52
									73100 Rental & Maintenance-Premises	584.21
									73400 Rental & Maint of Other Equip	185.00
									74200 Audio Visual&Print Prod Costs	2,871.04
									74500 Miscellaneous Expenses	514.92
									74900 Gain/Loss Disposal	16.96
									75100 Facilities & Administration	11,655.08
									76100 Foreign Exchange Currency Loss	-5.21
									77600 Depreciation Expense	147.60
									Sub-Total for Activity 2	157,337.51
	Result/Activity 3: Number of implemented infrastructural renewable energy systems (RES) projects increased due	/	33,560.83	47,736.32	722.92	407.68	UNDP	CzDA	64300 Staff Mgmt Costs - IP Staff	3,444.19
									71300 Local Consultant	54,334.33
									71600 Travel	218.48

	to the project's newly developed business models and financial schemes for investment in biomass									72100 Contractual Services - Individual	4,451.52
										72600 Grants	13,113.07
										74500 Miscellaneous Expenses	781.94
										75100 Facilities & Administration	6,084.22
		Sub-Total for Activity 3									82.427,75
	Activity 4: Project Management	4,470.00	29,611.11	39,571.66	24,346.58	16,139.34	UNDP	CzDA	64300 Staff Mgmt Costs - IP Staff	221.33	
									71400 Contractual Services - Individual	102,543.79	
									72100 Contractual Services - Individual	672.30	
									72300 Materials & Goods	78.61	
									73100 Rental & Maintenance-Premises	55.45	
									74500 Miscellaneous Expenses	712.89	
									75100 Facilities & Administration	8,451.38	
									76100 Foreign Exchange Currency Loss	-1.00	
									77600 Depreciation ITC	1,403.81	
		Sub-Total for Activity 4									114,138.56
General Management Support											
TOTAL											555,441.76 USD
											486,000.00 EUR

GOVERNANCE AND MANAGEMENT ARRANGEMENTS

The project organizational set up is given within the chart below:



The project will be implemented over a period of 36 months.

The UNDP Country Office (CO) through the Energy and Environment Sector Leader will monitor the implementation of the project, review progress in the realization of the project outputs, and ensure the proper use of CzDA funds.

The day-to-day administration of the project will be carried out by a local Project Manager (PM). The PM will be technically supported by contracted local and international service providers. Recruitment of specialist support services and procurement of any equipment and materials for the project will be done in accordance with relevant recruitment and procurement rules and procedures.

A Project Board (PB) will be constituted to serve as the executive decision making body for the project. It will be consisted out of representatives of following institutions:

- Ministry of Foreign Trade and Economic Relations of B&H
- Ministry of agriculture, water management and forestry of FB&H
- Ministry of agriculture, forestry and water management of RS
- Government of Brčko District – Department for agriculture, forestry and water management
- Czech Development Agency

The project board will meet minimum two times per year.

The financial arrangements and procedures for the project are governed by the UNDP rules and regulations for Direct Implementation Modality (DIM). All procurement and financial transactions will be governed by applicable UNDP regulations under DIM.

LEGAL CONTEXT

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.”

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.

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

RISK MANAGEMENT

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

UNDP as the Implementing Partner will undertake all reasonable efforts to ensure that none of the [project funds]¹⁰ [UNDP funds received pursuant to the Project Document]¹¹ 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/qa_sanctions_list.shtml. This provision must be included in all sub-contracts or sub-agreements entered into under this Project Document.

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>).

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.

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.

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.

¹⁰ To be used where UNDP is the Implementing Partner

¹¹ To be used where the UN, a UN fund/programme or a specialized agency is the Implementing Partner

- 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.

1. Project Quality Assurance Report

Implementation and Monitoring Stage Quality Assurance Report

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Implementation and Monitoring Stage Quality Assurance Report

Overall Project Rating : Satisfactory

Decision : Continue as planned: The project is of sufficient quality to continue as planned. All management actions must be addressed in a timely manner.

Project Number : 00048049

Project Title : Increase market demand for biomass energy, strengthen and expand biomass fuel market and supply chain, convince policy makers, financial sector, fuel and technology suppliers and niche markets of benefits and market opportunities for biomass energy.

Project Date : 21-Oct-2009

Strategic

Quality Rating: Satisfactory

1. Is the project pro-actively taking advantage of new opportunities, adapting its theory of change to respond to changes in the development context, including changing national priorities? (select the option from 1-3 that best reflects this project)

- 3: The project team completed and documented a horizon scanning exercise in the past year to identify new opportunities and changes in the development context that require adjustments in the theory of change. There is clear evidence that the project board has considered the implications, and documented changes to the project's theory of change. RRF, partnerships, etc. made in response, as appropriate. (both must be true to select this option)
- 2: The project team has undertaken some horizon scanning in the past year to identify new opportunities and changes in the development context. The project board discussed the scanning and its implications for the project, as reflected in the board minutes. There is some evidence that the project took action as a result, but changes may not have been fully integrated in the project's theory of change, RRF, partnerships, etc.
- 1: The project team may have considered new opportunities and changes in the development context since implementation began, but this has not been discussed in the project board. There is limited to no evidence that the project team has considered changes to the project as a result. This option would also be selected if no horizon scanning has been done to date during project implementation.

Evidence

There is evidence that in 2017 the Project has undertaken some horizon scanning to identify new opportunities and expand partnerships in the field of renewable energy. Specifically, it joined the efforts with the Bioenergy Coordination Body established among key actors in the area of Renewable Energy Sources (RES), comprised of institutions, donors and other relevant actors (Ministry of Foreign Trade and Economic Relations, The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), USAID, EIA, Czech Development Agency, UNDP). However, there is no evidence that in 2017 changes were introduced to the Project document in terms of updating the Project's T/C or RRF. Minutes of the Bioenergy Coordination events uploaded as evidence.

2. Is the project aligned with the thematic focus of the UNDP Strategic Plan? (select the option from 1-3 that best reflects the project)

- 3: The project responds to one of the three areas of development work as specified in the Strategic Plan; it addresses at least one of the proposed new and emerging areas; implementation is consistent with the issues-based analysis incorporated into the project design; and the project's RRF includes all the relevant SP output indicators. (all must be true to select this option)
- 2: The project responds to one of the three areas of development work as specified in the Strategic Plan. The project's RRF includes at least one SP output indicator, if relevant. (both must be true to select this option)

1: While the project may respond to one of the three areas of development work as specified in the Strategic Plan, it is based on a sectorial approach without addressing the complexity of the development issue. None of the relevant SP indicators are included in the RRF. This option is also selected if the project does not respond to any of the three SP areas of development work.

Evidence

Management Response

By supporting national institutions to develop policy for sustainable biomass utilization in Bosnia and Herzegovina and to improve enabling investments in biomass infrastructure, the Project responds to the SP area of work 1 "Sustainable development pathways". By strengthening capacities of local and subnational governments (including private sector representatives) in the field of wood biomass management and through creation of a multidisciplinary inter-sectorial coordination body, the Project helps building better governance and partnerships that can work on development issues thus responding also to the SP (2014-2017) area of work 2 "Inclusive and effective democratic governance". The Project addresses two proposed new and emerging areas of the UNDP's work: access to modern energy services and energy efficiency, and natural resources management. The Project's RRF includes the IRRF (2014 -2017) indicators 1.5.1.A.1.1 and 2.5.1.A.1.1.

3. Evidence generated through the project has been explicitly used to confirm or adjust the programme/CPD's theory of change.

- Yes
- No

Evidence

The Project used the CPD theory of change, specifically in terms of working at the local level to transform projects into policies. The Project contributes to achieving CPD Outcome 5.

Relevant

Quality Rating: Highly Satisfactory

4. Are the project's targeted groups being systematically engaged, with a priority focus on the excluded and marginalized, to ensure the project remains relevant for them? (select the option from 1-3 that best reflects the project)

- 3: Systematic and structured feedback has been collected over the past year from a representative sample of beneficiaries, with a priority focus on the excluded and marginalized, as part of the project's monitoring system. Representatives from the targeted groups are active members of the project's governance mechanism (i.e., the project board or equivalent) and there is credible evidence that their feedback informs project decision making. (all must be true to select this option)
- 2: Targeted groups have been engaged in implementation and monitoring, with a priority focus on the excluded and marginalized. Beneficiary feedback, which may be anecdotal, has been collected over the past year to ensure the project is addressing local priorities. This information has been used to inform project decision making. (all must be true to select this option)
- 1: Some beneficiary feedback may have been collected over the past year, but this information has not been used to inform project decision making. This option is also selected if no beneficiary feedback has been collected.
- Not Applicable

Evidence

Management Response

There is evidence that during the process of selection of four infrastructural initiatives to be supported by this Project, field visits were conducted in order to collect beneficiaries' inputs on local priorities. The beneficiaries were fully informed, involved into selection of technical solutions, financial arrangements and formalization of the selection process. Uploaded as evidence is the Project Status Report from June 22, 2017 containing information from consultations and visits to beneficiaries conducted under the Activity 3.4. (Implementation of model infrastructural projects through the concept of "green package" with support of the Czech Development Agency).

5. Is the project generating knowledge – particularly lessons learned (i.e., what has worked and what has not) – and has this knowledge informed management decisions and changes/course corrections to ensure the continued relevance of the project towards its stated objectives, the quality of its outputs and the management of risk? (select the option from 1-3 that best reflects the project)

- 3: Knowledge and lessons learned backed (gained, for example, from Peer Assists, After Action Reviews or Lessons Learned Workshops) by credible evidence from evaluation, corporate policies/strategies, analysis and monitoring have been discussed in project board meetings and reflected in the minutes. There is clear evidence that the project's theory of change has been adjusted, as needed, and changes were made to the project to ensure its continued relevance. (both must be true to select this option)
- 2: Knowledge and lessons learned backed by relatively limited evidence, drawn mainly from within the project, have been considered by the project team. There is some evidence that changes were made to the project as a result to ensure its continued relevance. (both must be true to select this option)
- 1: There is limited or no evidence that knowledge and lessons learned have been collected by the project team. There is little or no evidence that this has informed project decision making.

Evidence

Management Response

There is evidence (uploaded) that in 2017 the Project produced and published several concrete and broadly applicable knowledge products: Study on identification of policy gaps within the energy and forestry sectors in segment of wood biomass in Bosnia and Herzegovina; Report on analysis of wood biomass quality situation in B&H's market at initial phase of the Project; Wood biomass – fuel for the future (brochure for awareness raising on positive aspects of utilization of wood biomass for energy production purposes). The Methodology for biomass potentials in Bosnia and Herzegovina prepared for future usage by Environmental Funds but not public yet.

6. Are the project's measures (through outputs, activities, indicators) to address gender inequalities and empower women relevant and producing the intended effect? If not, evidence-based adjustments and changes have been made. (select the option from 1-3 that best reflects the project)

- 3: The project team has systematically gathered data and evidence through project monitoring on the relevance of the measures to address gender inequalities and empowering women. Analysis of data and evidence were used to inform adjustments and changes, as appropriate. (both must be true to select this option)
- 2: The project team has some data and evidence on the relevance of the measures to address gender inequalities and empowering women. There is evidence that at least some adjustments were made, as appropriate. (both must be true to select this option)

1: The project team has limited or no evidence on the relevance of measures to address gender inequalities and empowering women. No evidence of adjustments and/or changes being made. This option should also be selected if the project has no measures to address gender inequalities and empowering women relevant to the project results and activities.

Evidence

There is some evidence that in 2017 the Project implemented specific measures to address gender equality. For example, public buildings selected for implementation of model infrastructural projects on wood biomass fuel switch will benefit significant number of female users (i.e. employees of kindergartens). Also, through 8 meetings organized in 2017 within the Bioenergy Joint Programme, 78 female professionals were directly involved in all programming and decision making processes.

Management Response

7. Is the project sufficiently at scale, or is there potential to scale up in the future, to meaningfully contribute to development change? (select the option from 1-3 that best reflects the project)

3: There is credible evidence that the project is reaching a sufficient number of beneficiaries (either directly through significant coverage of target groups, or indirectly, through policy change) to meaningfully contribute to development change.

2: While the project is currently not at scale, there are explicit plans in place to scale up the project in the future (e.g. by extending its coverage or using project results to advocate for policy change).

1: The project is not at scale, and there are no plans currently to scale up the project in the future.

Evidence

There is no evidence that the Project is currently at scale. Currently, the Project's focus is placed on the actual implementation and achievement of the set objectives and targets, while future scaling up is at the initial discussions with key actors in this sector. Some evidence is available in the documents uploaded under Q1.

Social & Environmental Standards

Quality Rating: Satisfactory

8. Does the project seek to further the realization of human rights using a human rights based approach? (select from options 1-3 that best reflects this project)

3: Credible evidence that the project furthers the realization of human rights, on the basis on applying a human rights based approach. Any potential adverse impacts on enjoyment of human rights are actively identified, managed and mitigated through the project's management of risks. (all must be true to select this option)

2: Some evidence that the project furthers the realization of human rights. Potential adverse impacts on the enjoyment of human rights have been identified, and are adequately mitigated through the project's management of risks.

1: No evidence that the project aims to further the realization of human rights. Limited or no evidence that potential adverse impacts on enjoyment of human rights are managed.

Evidence

There is some evidence that through concrete activities the Project devoted attention to fostering economic growth and job creation, in which way it contributed to promotion of the economic rights of its beneficiaries.

Management Response

9. Are social and environmental impacts and risks (including those related to human rights, gender and environment) being successfully managed and monitored in accordance with project document and relevant action plans? (for projects that have no social or environmental risks the answer is "Yes")

- Yes
- No

Evidence

The Project's Risk Log does not include any social or environmental risks however, the SESP screening check identified two potential social and environmental risks from the Project, in relation to Standard 3: Community Health, Safety and Working Conditions and Standard 7: Pollution Prevention and Resource Efficiency. Corresponding measures were proposed but so far have not been implemented through relevant action plans as the potential risks did not materialize in 2017.

10. Are unanticipated social and environmental issues or grievances that arise during implementation assessed and adequately managed, with relevant management plans updated? (for projects that have not experienced unanticipated social and environmental risks or grievances the answer is "Yes")

- Yes
- No

Evidence

So far, the Project has not experienced unanticipated social and environmental issues or grievances.

Management & Monitoring	Quality Rating: Satisfactory
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11. Is the project's M&E Plan being adequately implemented? (select the option from 1-3 that best reflects the project)

- 3: The project has a comprehensive and costed M&E plan. Baselines, targets and milestones are fully populated. Progress data against indicators in the project's RRF is being reported regularly using credible data sources and collected according to the frequency stated in the Plan, including sex disaggregated data as relevant. Any evaluations conducted, if relevant, fully meet decentralized evaluation standards, including gender UNEG standards. Lessons learned, including during evaluations and/or After Action Reviews, are used to take corrective actions when necessary. (all must be true to select this option)
- 2: The project has a costed M&E Plan, and most baselines and targets are populated. Progress data against indicators in the project's RRF is collected on a regular basis, although there may be some slippage in following the frequency stated in the Plan and data sources are not always reliable. Any evaluations conducted, if relevant, meet most decentralized evaluation standards. Lessons learned have been captured but may not have been used to take corrective actions yet. (all must be true to select this option)
- 1: The project has an M&E Plan, but costs are not clearly planned and budgeted for, or are unrealistic. Progress data is not being regularly collected against the indicators in the project's RRF. Evaluations may not meet decentralized evaluation standards. Lessons learned are rarely captured and used. Select this option also if the project does not have an M&E plan.

Evidence

The Project follows its Monitoring plan with lump-sum costs projected within the overall Project's budget. No evaluation has been planned for the duration of the Project.

Management Response

12. Is project's governance mechanism (i.e., the project board or equivalent) functioning as intended? (select the option from 1-3 that best reflects the project)

- 3: *The project's governance mechanism is operating well, and is a model for other projects. It has met in the agreed frequency stated in the project document and the minutes of the meetings are on file. There is regular (at least annual) progress reporting to the project board or equivalent on results, risks and opportunities. It is clear that the project board explicitly reviews and uses evidence, including progress data, knowledge, lessons and evaluations, as the basis for informing management decisions (e.g., change in strategy, approach, work plan.) (all must be true to select this option)*
- 2: *The project's governance mechanism has met in the agreed frequency and the minutes of the meeting are on file. A project progress report has been submitted to the project board or equivalent at least once in the past year, covering results, risks and opportunities. (both must be true to select this option)*
- 1: *The project's governance mechanism has not met in the frequency stated in the project document over the past year and/or the project board or equivalent is not functioning as a decision making body for the project as intended.*

Evidence

The Project board members meet regularly twice a year as predicted by the ProDoc to discuss progress, plans and eventual bottlenecks of the Project. Evidence provided in the PO meeting minutes.

Management Response

13. Are risks to the project adequately monitored and managed? (select the option from 1-3 that best reflects the project)

- 3: *The project has actively monitored risks every quarter including consulting with key stakeholders at least once in the past year to identify continuing and emerging risks to project implementation and to assess if the main assumptions remain valid. There is clear evidence that relevant management plans and mitigating measures are being fully implemented to address each key project risk, and have been updated to reflect the latest risk assessment. (all must be true to select this option)*
- 2: *The project has monitored risks every quarter, as evidenced by an updated risk log. Some updates have been made to management plans and mitigation measures.*
- 1: *The risk log has not been updated every quarter as required. There may be some evidence that the project has monitored risks that may affect the project's achievement of results, but there is no explicit evidence that management actions have been taken to mitigate risks.*

Evidence

There is no evidence that the project is updating, monitoring and capturing risks.

Management Response

The project will start updating, monitoring and capturing risks.

Efficient

Quality Rating: Highly Satisfactory

14. Adequate resources have been mobilized to achieve intended results. If not, management decisions were taken to adjust expected results in the project's results framework.

- Yes
- No

Evidence

The Project has enough resources to implement the planned activities.

15. Are project inputs procured and delivered on time to efficiently contribute to results? (select the option from 1-3 that best reflects the project)

- 3: The project has an updated procurement plan. Implementation of the plan is on or ahead of schedule. The project quarterly reviews operational bottlenecks to procuring inputs in a timely manner and addresses them through appropriate management actions. (all must be true to select this option)
- 2: The project has an updated procurement plan. The project annually reviews operational bottlenecks to procuring inputs in a timely manner and addresses them through appropriate management actions. (all must be true to select this option)
- 1: The project does not have an updated procurement plan. The project may or may not have reviewed operational bottlenecks to procuring inputs in a timely manner, however management actions have not been taken to address them.

Evidence

The Project has updated Procurement Plan set at the beginning of the year and implemented accordingly.

Management Response

16. Is there regular monitoring and recording of cost efficiencies taking into account the expected quality of results? (select the option from 1-3 that best reflects the project)

- 3: There is evidence that the project regularly reviews costs against relevant comparators (e.g., other projects or country offices) or industry benchmarks to ensure the project maximizes results that can be delivered with given resources. The project actively coordinates with other relevant ongoing projects and initiatives (UNDP or other) to ensure complementarity and seek efficiencies wherever possible (e.g. joint activities.) (both must be true to select this option)
- 2: The project monitors its own costs and gives anecdotal examples of cost efficiencies (e.g., spending less to get the same result,) but there is no systematic analysis of costs and no link to the expected quality of results delivered. The project coordinates activities with other projects to achieve cost efficiency gains.
- 1: There is little or no evidence that the project monitors its own costs and is considering ways to save money beyond following standard procurement rules.

Evidence

In its initial procurement planning set at the beginning of the year, the Project identified few possibilities to jointly advertise procurement with the Green Economic Development Project in order to minimize the cost and maximize the usage of consultancies for media campaign and development of the Methodology for selection of biomass projects within the portfolios of the Environmental Funds. For evidence follow the link:
http://procurement-notices.undp.org/view_notice.cfm?notice_id=35851

Effective

Quality Rating: Highly Satisfactory

17. Is the project on track to deliver its expected outputs?

- Yes
- No

Evidence

There is evidence that the Project is on track to deliver results.

Evidence can be found in the minutes of the Project Board Meetings, Progress Report uploaded under Q4 and Project Monitoring Platform Biomass Report uploaded under Q11.

18. Have there been regular reviews of the work plan to ensure that the project is on track to achieve the desired results, and to inform course corrections if needed? (select the option from 1-3 that best reflects the project)

- 3: Quarterly progress data has informed regular reviews of the project work plan to ensure that the activities implemented are most likely to achieve the desired results. There is evidence that data and lessons learned (including from evaluations and/or After Action Reviews) have been used to inform course corrections, as needed. Any necessary budget revisions have been made. (both must be true to select this option)
- 2: There has been at least one review of the work plan during the year to assess if project activities are on track to achieving the desired development results (i.e., outputs.) There may or may not be evidence that data or lessons learned has been used to inform the review(s). Any necessary budget revisions have been made.
- 1: While the project team may have reviewed the work plan at least once over the past year to ensure outputs are delivered on time, no link has been made to the delivery of desired development results. Select this option also if no review of the work plan by management has taken place over the past year.

Evidence

The Project's Annual Work Plan has been reviewed on regular basis and as such presented and discussed on the Projects Board Meetings. Budget Revision has also been performed as needed.

Management Response

19. Are targeted groups being systematically identified and engaged, prioritizing the marginalized and excluded, to ensure results are achieved as expected? (select the option from 1-3 that best reflects the project)

- 3: The project is targeting specific groups and/or geographic areas, identified by using credible data sources on their capacity needs, deprivation and/or exclusion from development opportunities relevant to the project's area of work. There is clear evidence that the targeted groups are being reached as intended. The project has engaged regularly with targeted groups over the past year to assess whether they are benefiting as expected and adjustments were made if necessary to refine targeting. (all must be true to select this option)
- 2: The project is targeting specific groups and/or geographic areas, based on some evidence of their capacity needs, deprivation and/or exclusion from development opportunities relevant to the project's area of work. Some evidence is provided to confirm that project beneficiaries are members of the targeted groups. There has been some engagement with beneficiaries in the past year to assess whether they are benefiting as expected. (all must be true to select this option)
- 1: The project does not report on specific targeted groups. There is no evidence to confirm that project beneficiaries are populations have capacity needs or are deprived and/or excluded from development opportunities relevant to the project area of work. There may have been some engagement with beneficiaries to assess whether they are benefiting as expected, but it has been limited or has not occurred in the past year.
- Not Applicable

Evidence

Several consultation meetings were held with beneficiaries of selected infrastructural interventions supported by the Project, with stakeholders and targeted beneficiaries. Evidence is available in the minutes of the meetings and reports uploaded under the Question 1. Also, overview of the meetings with targeted project groups enclosed hereto.

20. Are at least 40 per cent of the personnel hired by the project, regardless of contract type, female?

- Yes
- No

Evidence

100% of the project staff is female.

Sustainability & National Ownership

Quality Rating: Satisfactory

21. Are stakeholders and national partners fully engaged in the decision-making, implementation and monitoring of the project? (select the option from 1-3 that best reflects the project)

- 3: Only national systems (i.e., procurement, monitoring, evaluation, etc.) are used to fully implement and monitor the project. All relevant stakeholders and partners are fully and actively engaged in the process, playing a lead role in project decision-making, implementation and monitoring. (both must be true to select this option)
- 2: National systems (i.e., procurement, monitoring, evaluation, etc.) are used in combination with other support (such as country office support or project systems) to implement and monitor the project, as necessary. All relevant stakeholders and partners are fully and actively engaged in the process, playing an active role in project decision-making, implementation and monitoring. (both must be true to select this option)
- 1: There is relatively limited or no engagement with national stakeholders and partners in the decision-making, implementation and/or monitoring of the project.
- Not Applicable

Evidence

The Project applies Direct Implementation Modality and utilizes UNDP systems and rules for project management and implementation. However, all relevant stakeholders and partners are involved in the process, playing an active role in project decision-making, implementation and monitoring.

Management Response

22. There is regular monitoring of changes in capacities and performance of national institutions and systems relevant to the project. The implementation arrangements have been adjusted according to changes in partner capacities. (select the option from 1-3 that best reflects the project)

- 3: In the past year, changes in capacities and performance of national institutions and systems have been comprehensively assessed/monitored using clear indicators, rigorous methods of data collection and credible data sources including HACT assurance activities. Implementation arrangements have been formally reviewed and adjusted, if needed, in agreement with partners according to changes in partner capacities. (both must be true to select this option)
- 2: In the past year, aspects of changes in capacities and performance of relevant national institutions and systems have been monitored by the project using indicators and reasonably credible data sources including HACT assurance activities. Some adjustment has been made to implementation arrangements if needed to reflect changes in partner capacities. (both must be true to select this option)
- 1: Some aspects of changes in capacities and performance of relevant national institutions and systems may have been monitored by the project, however changes to implementation arrangements have not been considered. Also select this option if changes in capacities and performance of relevant national institutions and systems have not been monitored by the project.
- Not Applicable

Evidence

The Project document was revised in 2016; general assessment of

Management Response

needs and capacity of stakeholders was conducted; this, however, did not result in change in the implementation modality for the project.

23. The transition and phase-out arrangements are reviewed regularly and adjusted according to progress (including financial commitments and capacity). (select the option from 1-3 that best reflects the project)

- 3: The project's governance mechanism has reviewed the project's sustainability plan in the past year, including arrangements for transition and phase-out, to ensure the project is on track in meeting the requirements set out by the plan. The plan has been adjusted according to progress as needed. (both must be true to select this option)
- 2: There has been a review of the project's sustainability plan, including arrangements for transition and phase-out, to ensure the project is on track in meeting the requirements set out by the plan.
- 1: The project may have a sustainability plan, but there has not been a review of this strategy since it was developed. Also select this option if the project does not have a sustainability strategy.

Evidence

The Project Sustainability Plan was revised in 2016 to include new transitional and phase out arrangements. The Chapter 8 of the Project's Progress Report uploaded under Question 4 presents the key milestones expected in the next period with guidelines on how to developed capacities of the stakeholders in the sector.

Management Response

QA Summary/Project Board Comments:

The Project needs to strengthen its risk management, particularly in terms of monitoring and review, utilizing Atlas Risk Monitoring Log and Project Board discussions.

2. *Social and Environmental Screening Template*

Project Information

Project Information	
1. Project Title	Biomass Energy for Employment and Energy Security – Follow Up Project
2. Project Number	0054633
3. Location (Global/Region/Country)	Bosnia and Herzegovina

Part A. Integrating Overarching Principles to Strengthen Social and Environmental Sustainability

QUESTION 1: How Does the Project Integrate the Overarching Principles in order to Strengthen Social and Environmental Sustainability?
<i>Briefly describe in the space below how the Project mainstreams the human-rights based approach</i>
Although the Project does not directly deal with human rights-related matters, it envisages participatory engagement of a wide range of stakeholders with various interests related to wood biomass potential. Several activities are dealing with participatory engagement aimed at knowledge increasing. These are: training modules on wood biomass business models and management to local communities and private companies, study tour for relevant policy makers to Czech Republic, establishment of inter-sectoral cross-entity coordination body and establishment of a Biomass Innovation Centre. Furthermore, the Project will apply a top-down and bottom-up approach to capacity development and policy design, by engaging all government levels, as well as the private sector, non-governmental organizations, citizens and media. In addition, among the main focuses of the Project is to contribute to sectoral reforms which are driven by B&H's European aspirations, namely in the environment field that takes large part of the EU acquis. Finally, proper attention has been devoted to fostering economic growth and contribution to job creation in Bosnia and Herzegovina within this Project.
<i>Briefly describe in the space below how the Project is likely to improve gender equality and women's empowerment</i>
Particular attention will be given to ensuring gender-sensitive design of regulatory and policy frameworks, as well as assuring that both men and women benefit equally from services, funding, employment and capacity development opportunities supported by the project. Women will be encouraged to participate equally in activities led of project. Gender disaggregated data would be available after initial selection of public buildings where direct and indirect beneficiaries in terms of pupils/children would be analyzed and recorded. Recommendations on how to improve gender dimensions and gender mainstreaming related to wood biomass, and priority actions in this area will be highlighted within the appropriate segments of the studies which shall be compiled through project activities; or through events which are to be held and promoted.
<i>Briefly describe in the space below how the Project mainstreams environmental sustainability</i>
All investments envisaged within the Project will be done with strong consideration of environmental sustainability.

Part B. Identifying and Managing Social and Environmental Risks

<p>QUESTION 2: What are the Potential Social and Environmental Risks? <i>Note: Describe briefly potential social and environmental risks identified in Attachment 1 – Risk Screening Checklist (based on any “Yes” responses). If no risks have been identified in Attachment 1 then note “No Risks Identified” and skip to Question 4 and Select “Low Risk”. Questions 5 and 6 not required for Low Risk Projects.</i></p>	<p>QUESTION 3: What is the level of significance of the potential social and environmental risks? <i>Note: Respond to Questions 4 and 5 below before proceeding to Question 6</i></p>			<p>QUESTION 6: What social and environmental assessment and management measures have been conducted and/or are required to address potential risks (for Risks with Moderate and High Significance)?</p>
Risk Description	Impact and Probability (1-5)	Significance (Low, Moderate, High)	Comments	Description of assessment and management measures as reflected in the Project design.
<p>Risk 1: Potential causing of adverse impacts to habitats (e.g. modified, natural, and critical habitats) and/or ecosystems and ecosystem services</p>	<p>I = 3 P = 1</p>	<p>Low</p>		<p>The Project implies development of a studies on enabling forest governance mechanisms to secure biomass fuel supply to end-users. This activity will result with draft and adoption of forest governance mechanisms for FBiH/Cantons and RS. Particular attention should be given to potential regulations in the forestry sector that are related to biomass supply; existing and potential planning and decision making processes within forestry sector and potential improvements; implementation and compliance of the current forestry regulations and recommendations for improvement.</p>
<p>Risk 2: Failure of structural elements of Project</p>	<p>I = 5 P = 1</p>	<p>Low</p>		<p>Projects will be identified and prioritized in accordance to the results of Detailed Energy Audits (conducted by UNDP’s GED project). At least five RES infrastructure projects (sample “green package”, preferably biomass boiler heating system, potentially also solar panels and LED lighting) will be introduced to CzDA by UNDP every year of implementation. Finally, all projects will be implemented in close cooperation with UNDP and CzDA in</p>

				order to conduct monitor and supervision of implementation properly.
Risk 3: Consumption of raw materials, energy and/or water	I = 5 P = 5	High		Five prioritized RES infrastructure projects for further support by CzDA every year of implementation including basic data about these projects.
QUESTION 4: What is the overall Project risk categorization?				
	Select one		Comments	
	<i>Low Risk</i>	<input type="checkbox"/>		
	<i>Moderate Risk</i>	<input checked="" type="checkbox"/>	The project is assessed as a low to medium-risk category, particularly from social and environmental viewpoint.	
	<i>High Risk</i>	<input type="checkbox"/>		
QUESTION 5: Based on the identified risks and risk categorization, what requirements of the SES are relevant?				
	Check all that apply		Comments	
	<i>Principle 1: Human Rights</i>	<input type="checkbox"/>		
	<i>Principle 2: Gender Equality and Women's Empowerment</i>	<input type="checkbox"/>		
	<i>1. Biodiversity Conservation and Natural Resource Management</i>	<input checked="" type="checkbox"/>	Enabling forest governance mechanisms to secure biomass fuel supply of end-users	
	<i>2. Climate Change Mitigation and Adaptation</i>	<input checked="" type="checkbox"/>	Supporting usage of wood biomass for energy production as a measure for climate change mitigation and adaptation of Bosnia and Herzegovina	
	<i>3. Community Health, Safety and Working Conditions</i>	<input type="checkbox"/>		
	<i>4. Cultural Heritage</i>	<input type="checkbox"/>		
	<i>5. Displacement and Resettlement</i>	<input type="checkbox"/>		
	<i>6. Indigenous Peoples</i>	<input type="checkbox"/>		
	<i>7. Pollution Prevention and Resource Efficiency</i>	<input type="checkbox"/>		

Final Sign Off

<i>Signature</i>	<i>Date</i>	<i>Description</i>
QA Assessor		Amra Zorlak, Monitoring and Evaluation Analyst
QA Approver		Sanjin Avdic, Sector Leader
LPAC Chair		Sanjin Avdic, Sector Leader

Social and Environmental Risk Screening Checklist

Checklist Potential Social and Environmental Risks	
Principles 1: Human Rights	Answer (Yes/No)
1. Could the Project lead to adverse impacts on enjoyment of the human rights (civil, political, economic, social or cultural) of the affected population and particularly of marginalized groups?	No
2. Is there a likelihood that the Project would have inequitable or discriminatory adverse impacts on affected populations, particularly people living in poverty or marginalized or excluded individuals or groups?	No
3. Could the Project potentially restrict availability, quality of and access to resources or basic services, in particular to marginalized individuals or groups?	No
4. Is there a likelihood that the Project would exclude any potentially affected stakeholders, in particular marginalized groups, from fully participating in decisions that may affect them?	No
5. Is there a risk that duty-bearers do not have the capacity to meet their obligations in the Project?	No
6. Is there a risk that rights-holders do not have the capacity to claim their rights?	No
7. Have local communities or individuals, given the opportunity, raised human rights concerns regarding the Project during the stakeholder engagement process?	No
8. Is there a risk that the Project would exacerbate conflicts among and/or the risk of violence to project-affected communities and individuals?	No
Principle 2: Gender Equality and Women's Empowerment	
1. Is there a likelihood that the proposed Project would have adverse impacts on gender equality and/or the situation of women and girls?	No
2. Would the Project potentially reproduce discriminations against women based on gender, especially regarding participation in design and implementation or access to opportunities and benefits?	No
3. Have women's groups/leaders raised gender equality concerns regarding the Project during the stakeholder engagement process and has this been included in the overall Project proposal and in the risk assessment?	No
4. Would the Project potentially limit women's ability to use, develop and protect natural resources, taking into account different roles and positions of women and men in accessing environmental goods and services? <i>For example, activities that could lead to natural resources degradation or depletion in communities who depend on these resources for their livelihoods and well being</i>	No
Principle 3: Environmental Sustainability: Screening questions regarding environmental risks are encompassed by the specific Standard-related questions below	
Standard 1: Biodiversity Conservation and Sustainable Natural Resource Management	
1.1 Would the Project potentially cause adverse impacts to habitats (e.g. modified, natural, and critical habitats) and/or ecosystems and ecosystem services?	Yes
1.2 Are any Project activities proposed within or adjacent to critical habitats and/or environmentally sensitive areas, including legally protected areas (e.g. nature reserve, national park), areas proposed for protection, or recognized as such by authoritative sources and/or indigenous peoples or local communities?	No

1.3 Does the Project involve changes to the use of lands and resources that may have adverse impacts on habitats, ecosystems, and/or livelihoods? (Note: if restrictions and/or limitations of access to lands would apply, refer to Standard 5)	No
1.4 Would Project activities pose risks to endangered species?	No
1.5 Would the Project pose a risk of introducing invasive alien species?	No
1.6 Does the Project involve harvesting of natural forests, plantation development, or reforestation?	No
1.7 Does the Project involve the production and/or harvesting of fish populations or other aquatic species?	No
1.8 Does the Project involve significant extraction, diversion or containment of surface or ground water? <i>For example, construction of dams, reservoirs, river basin developments, groundwater extraction</i>	No
1.9 Does the Project involve utilization of genetic resources? (e.g. collection and/or harvesting, commercial development)	No
1.10 Would the Project generate potential adverse transboundary or global environmental concerns?	No
1.11 Would the Project result in secondary or consequential development activities which could lead to adverse social and environmental effects, or would it generate cumulative impacts with other known existing or planned activities in the area? <i>For example, a new road through forested lands will generate direct environmental and social impacts (e.g. felling of trees, earthworks, potential relocation of inhabitants). The new road may also facilitate encroachment on lands by illegal settlers or generate unplanned commercial development along the route, potentially in sensitive areas. These are indirect, secondary, or induced impacts that need to be considered. Also, if similar developments in the same forested area are planned, then cumulative impacts of multiple activities (even if not part of the same Project) need to be considered.</i>	No
Standard 2: Climate Change Mitigation and Adaptation	
2.1 Will the proposed Project result in significant greenhouse gas emissions or may exacerbate climate change?	No
2.2 Would the potential outcomes of the Project be sensitive or vulnerable to potential impacts of climate change?	No
2.3 Is the proposed Project likely to directly or indirectly increase social and environmental vulnerability to climate change now or in the future (also known as maladaptive practices)? <i>For example, changes to land use planning may encourage further development of floodplains, potentially increasing the population's vulnerability to climate change, specifically flooding</i>	No
Standard 3: Community Health, Safety and Working Conditions	
3.1 Would elements of Project construction, operation, or decommissioning pose potential safety risks to local communities?	No
3.2 Would the Project pose potential risks to community health and safety due to the transport, storage, and use and/or disposal of hazardous or dangerous materials (e.g. explosives, fuel and other chemicals during construction and operation)?	No
3.3 Does the Project involve large-scale infrastructure development (e.g. dams, roads, buildings)?	No
3.4 Would failure of structural elements of the Project pose risks to communities? (e.g. collapse of buildings or infrastructure)	Yes
3.5 Would the proposed Project be susceptible to or lead to increased vulnerability to earthquakes, subsidence, landslides, erosion, flooding or extreme climatic conditions?	No
3.6 Would the Project result in potential increased health risks (e.g. from water-borne or other vector-borne diseases or communicable infections such as HIV/AIDS)?	No
3.7 Does the Project pose potential risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during Project construction, operation, or decommissioning?	No
3.8 Does the Project involve support for employment or livelihoods that may fail to comply with national and international labor standards (i.e. principles and standards of ILO fundamental conventions)?	No
3.9 Does the Project engage security personnel that may pose a potential risk to health and safety of communities and/or individuals (e.g. due to a lack of adequate training or accountability)?	No
Standard 4: Cultural Heritage	

4.1 Will the proposed Project result in interventions that would potentially adversely impact sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g. knowledge, innovations, practices)? (Note: Projects intended to protect and conserve Cultural Heritage may also have inadvertent adverse impacts)	No
Standard 5: Displacement and Resettlement	
5.1 Would the Project potentially involve temporary or permanent and full or partial physical displacement?	No
5.2 Would the Project possibly result in economic displacement (e.g. loss of assets or access to resources due to land acquisition or access restrictions – even in the absence of physical relocation)?	No
5.3 Is there a risk that the Project would lead to forced evictions?	No
5.4 Would the proposed Project possibly affect land tenure arrangements and/or community based property rights/customary rights to land, territories and/or resources?	No
Standard 6: Indigenous Peoples	
6.1 Are indigenous peoples present in the Project area (including Project area of influence)?	No
6.2 Is it likely that the Project or portions of the Project will be located on lands and territories claimed by indigenous peoples?	No
6.3 Would the proposed Project potentially affect the human rights, lands, natural resources, territories, and traditional livelihoods of indigenous peoples (regardless of whether indigenous peoples possess the legal titles to such areas, whether the Project is located within or outside of the lands and territories inhabited by the affected peoples, or whether the indigenous peoples are recognized as indigenous peoples by the country in question)? <i>If the answer to the screening question 6.3 is “yes” the potential risk impacts are considered potentially severe and/or critical and the Project would be categorized as either Moderate or High Risk.</i>	No
6.4 Has there been an absence of culturally appropriate consultations carried out with the objective of achieving FPIC on matters that may affect the rights and interests, lands, resources, territories and traditional livelihoods of the indigenous peoples concerned?	No
6.5 Does the proposed Project involve the utilization and/or commercial development of natural resources on lands and territories claimed by indigenous peoples?	No
6.6 Is there a potential for forced eviction or the whole or partial physical or economic displacement of indigenous peoples, including through access restrictions to lands, territories, and resources?	No
6.7 Would the Project adversely affect the development priorities of indigenous peoples as defined by them?	No
6.8 Would the Project potentially affect the physical and cultural survival of indigenous peoples?	No
6.9 Would the Project potentially affect the Cultural Heritage of indigenous peoples, including through the commercialization or use of their traditional knowledge and practices?	No
Standard 7: Pollution Prevention and Resource Efficiency	
7.1 Would the Project potentially result in the release of pollutants to the environment due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts?	No
7.2 Would the proposed Project potentially result in the generation of waste (both hazardous and non-hazardous)?	No
7.3 Will the proposed Project potentially involve the manufacture, trade, release, and/or use of hazardous chemicals and/or materials? Does the Project propose use of chemicals or materials subject to international bans or phase-outs? <i>For example, DDT, PCBs and other chemicals listed in international conventions such as the Stockholm Conventions on Persistent Organic Pollutants or the Montreal Protocol</i>	No
7.4 Will the proposed Project involve the application of pesticides that may have a negative effect on the environment or human health?	No
7.5 Does the Project include activities that require significant consumption of raw materials, energy, and/or water?	Yes

3. Risk Analysis.

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#	Description	Date Identified	Type	Impact & Probability	Countermeasures / Mngt response	Owner	Submitted, updated by	Last Update	Status
1	<p>Unstable demand for RES projects in general / Unstable supply and quality of RES heating medium</p> <p><i>(In Atlas, use the Description field. Note: This field cannot be modified after first data entry)</i></p>	During the preparation of project proposal	Operational Strategic	<p>-Delay of project activities -Inadequate results of the project -Renewable energy share in the BiH energy mix stagnation</p> <p>P = 1 I =5</p>	<p>-Enhance effort of development of policy for sustainable biomass utilization in BiH.</p> <p>-Enhance quality and availability of the wood biomass energy carrier through advocacy and awareness raising</p> <p>-Increase implementation of infrastructural RES projects and ensure recognition and promotion of its benefits</p> <p>- Raise interest in the renewable sources of energy among the population and also private companies through array of awareness activities</p>	Relevant Ministries UNDP	UNDP		no change

2	Developed Biomass Action Plans (RES action plans) and value chain management plan not regularly updated after the project accomplishment.	During the preparation of project proposal	Strategic	Developed policy not used in practice P = 2 I = 5	Modify existing legislation or new law/laws in RES problematic to better suit the local circumstances	Relevant state and entity ministries	UNDP		no change
3	Specified biomass related business models and supporting financial mechanisms not appropriately updated and used in practice after the project accomplishment.	During the preparation of project proposal	Financial Operational Strategic	Developed policy not used in practice Inadequate number of RES infrastructure projects implemented through the developed financial mechanisms P = 2 I = 5	Ensure appropriate data collection and coordination with the environmental funds in line with their existing capacities and methods of work Raise interest in the renewable sources of energy among the population and also private companies through array of awareness activities in order to keep the issue on the policy agenda	Entity funds for environmental protection Relevant state and entity ministries	UNDP		no change
4	Price of the biomass heating medium not stable and available in sufficient amount.	During the preparation of project proposal	Financial	- Utilization of wood biomass not increased - Inadequate number of RES infrastructure projects P = 2 I = 5	Raise interest in the renewable sources of energy among the population and private companies through array of awareness activities in order to keep the issue on the policy agenda	UNDP	UNDP		no change

<p>A C T I V I T I E S</p>	<p>1.1.1 – Identification of policy gaps within the energy and forestry sectors</p> <p>1.1.2 – Development of effective policies and legislation framework</p> <p>1.1.3 - Development and Adoption of planning, law and bylaw documents focused at better utilization of biomass for heating purposes</p> <p>1.1.4 - Creating understanding and strengthening capacities of policy makers</p> <p>1.2.1 - Creation of a multidisciplinary coordination body and development of an efficient and sustainable value chain management plan</p> <p>1.2.2 - Mapping of BiH biomass exploitation and utilization potential</p> <p>1.2.3 - Enabling forest governance</p>	<p>During the preparation of project proposal</p>	<p>Financial Operational Strategic</p>	<p>-Delay of project activities</p> <p>-Inadequate results of the project</p> <p>-Renewable energy share in the BiH energy mix stagnation</p> <p>- Utilization of wood biomass not increased</p> <p>- Inadequate number of RES infrastructure projects</p> <p>P = 1</p> <p>I =5</p>	<p>Participatory approach in development of relevant studies, documents, laws and bylaws</p> <p>Provision of technical assistance in development of law and bylaw documents</p> <p>Topics for education of representatives of selected municipalities and decision makers that participated at study tour developed based on needs of relevant stakeholders in BiH</p> <p>Involvement of all relevant institutions in Bioenergy coordination Body</p> <p>Involvement of relevant institutions in process of mapping biomass potentials (from early beginning to end)</p>	<p>Relevant state and entity ministries</p>	<p>UNDP</p>		<p>no change</p>
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<p>mechanisms to secure biomass fuel supply of end-users</p> <p>1.2.4 - Public campaign on wood biomass utilization and potential in BiH</p> <p>1.3.1 - Development of BiH tailored biomass related business models</p> <p>1.3.2 - Introduction of biomass related supporting financial mechanisms in FBiH and RS</p> <p>1.3.3 – Establishment of a Biomass Innovation Centre for private sector</p>				<p>Advocating for adoption of forest governance mechanisms into the legislative documents of forestry sectors in BiH</p> <p>Close collaboration with responsible institutions during the development of wood biomass financial mechanisms</p> <p>Awareness raising activities, tailored-made to the needs of local population</p> <p>Utilization of EMIS database for selection of pilot infrastructure fuel-switch projects</p> <p>Assuring in-kind contribution for establishment of Biomass Innovation Centre</p>				
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4. Project Board Terms of Reference and TORs of key management positions

Responsibilities of the Project Board:

Summary of key functions:

1. As a decision-making authority, Project Board is responsible for strategic guidance, fiduciary, management oversight and overall coordination of project implementation
2. Approves annual work plans, supervises the overall implementation progress and authorizes any major deviation
3. provides strategic guidance and give final approval to selected strategic and operational issues
4. Ensures that required resources are committed and arbitrates on any conflicts within the Project or negotiates a solution to any problems between the Project and external bodies.

The Project Board will meet at least twice per year, or as necessary when raised by Project Manager.

Members of the Project Board will be representatives of Ministry of Foreign Trade and Economic Relations of B&H, Ministry of agriculture, water management and forestry of FBiH, Ministry of agriculture, forestry and water management of RS, CzDa and UNDP.

UNDP will serve as the secretariat to the Project Board, responsible for sending out invitation for Project Board meetings, preparing meeting agenda and materials, as well as drafting minutes from the meetings.

Responsibilities of the project manager:

1. Summary of key functions:
2. 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:
3. Supervises and ensures the timely implementation of the project relevant activities;
4. 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;
5. Assures coordination among project activities;
6. Liaises with the relevant ministries, local 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;
7. Supervises and coordinates the contracts of the experts working for the project;
8. Submits annual Project reports and other required progress reports to the Project Board and the UNDP in accordance with the Project Document;
9. As applicable, communicates with the project's international partners and attracting additional financing in order to fulfil the project objectives; and
10. Ensures 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.

Responsibilities of the technical assistant:

Under the direct supervision of the Project Manager, the Technical Assistant will be responsible for technical support in the field of project activities implementation. Specifically, his/her responsibilities are but not limited to the following:

1. Supports timely implementation of project activities
2. Supports the development of biomass and RES data outputs and monitoring-verification- reporting mechanisms;
3. Supports the Project Manager in development of in-house studies and publications;
4. Supports the Project manager in evaluation of consultants' outputs and relevant studies;
5. Supports the development of action plans, work plans;
6. Supports tender processes necessary for the implementation of the project activities;

7. Drafting of routine official correspondence/documents and assists in the preparation of new project documents;
8. Represents and provides support to organizing and holding meetings, including the preparation and dissemination of information and follow-up.
9. Acts as support in in-house cross-checking / quality assurance activities of deliverables by third parties (e.g. consultants, assemblers etc.) as well as tendering activities;
10. Assists in timely reporting;
11. Support timely project activity delivery and submission of reports.