TERMINAL EVALUATION REPORT

UNDP GEF Project: Catalyzing Environmental Finance for Low-Carbon Urban Development

UNDP Project ID (PIMS #)	5646
GEF Project ID (PIMS #)	9151
Terminal Evaluation was conducted	January-February 2024
GEF Focal Area/Strategic Program	Climate Change Mitigation
Country/Executing Agency	Bosnia and Herzegovina/UNDP Bosnia and Herzegovina
Project Partners	Ministry of Foreign Trade and Economic Relations of BiH, Ministry of Spatial Planning, Civil Engineering and Ecology of the Republic of Srpska, Ministry of Environment and Tourism of the Federation of BiH, Environmental Fund of the Federation of Bosnia and Herzegovina, and Environmental Protection and Energy Efficiency Fund of Republic of Srpska

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Acknowledgements

The Terminal Evaluators wish to acknowledge with gratitude the time and effort expended by all project participants and stakeholders during the course of the Catalyzing Environmental Finance for Low-Carbon Urban Development (LCUD) Terminal Evaluation. We appreciate the support provided by UNDP Bosnia and Herzegovina during the mission in the country. We are particularly grateful for the extensive time, effort, and thoughtful participation of the Project Management Unit for the LCUD Project throughout the evaluation process. We sincerely hope that this report on the LCUD Project implementation will be useful for further efforts towards a lower carbon footprint and urban development in Bosnia and Herzegovina.

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Acronyms and Abbreviations

BiH	Bosnia and Herzegovina
CSOs	Civil Society Organizations
EF	The Environmental Fund
EU	European Union
ESCO	Energy Service Company
FBiH	Federation of Bosnia and Herzegovina
GEF	Global Environment Facility
GCF	Global Climate Fund
LCUD	Low Carbon Urban Development
LOA	Letter of Agreement
M&E	Monitoring and Evaluation
MRV	Monitoring, Reporting, and Verification
MTR	Mid-term review
NAP	National Adaptation Plan
NECP	The National Energy and Climate Plan for Bosnia and Herzegovina
NCSA	National Capacity Self-Assessment
NDC	Nationally determined contributions
NDP	National Development Plan
NIF	National Investment Framework
NGO	Non-Governmental Organization
OECD/DAC	Organization for Economic Cooperation/Development Assistance Committee
PMU	Project Management Unit
PIR	Project Implementation Report
PSC/PB	Project Steering Committee/Project Board
RS	Republic of Srpska
RRF	Results and Resource Framework
SDGs	Sustainable Development Goals
SMEs	Small and Medium-sized Enterprises
SMART	Specific, Measurable, Attainable, Relevant, and Time-bounded
SSTC	South-South & Triangular Cooperation
TE	Terminal Evaluation
TOR	Terms of Reference
UNCCD	United Nations Convention to Combat Desertification
UNDAF	United Nations Development Assistance Framework
UNDP	United Nations Development Program
UNFCCC	United Nations Framework Convention on Climate Change
USD	United States Dollar

Executive Summary

Table 1: Project Summary[1]

Project Title: Catalyzing Environmental Finance for Low-Carbon Urban Development		
UNDP Project ID (PIMS #): 5646		PIF Approval Date: Jun 8, 2016
GEF Project ID (PIMS #): 9151		CEO Endorsement Date: Aug 2, 2017
ATLAS Business Unit, Award # Proj. ID: 00100625		Project Document (ProDoc) Signature Date (date project began): 01.12.2017
Country(ies): Bosnia and Herzegovina		Date project manager hired: 01.01.2018.
Region: Europe and the CIS		Inception Workshop date: May 28, 2018
Focal Area: Climate Change Mitigation		Mid-term Review completion date: 03.12.2020.
GEF Focal Area Strategic Objective: Demonstrate systematic impact of mitigation options		Planned planed closing date: Dec 1, 2022
Trust Fund [indicate GEF TF, LDCF, SCCF, NPIF]: GEF TF		Proposed op. closing date: Dec 1, 2023 Extended: June 01, 2024
Executing Agency/ Implementing Partner: UNDP (DIM)		
Partners: Ministry of Foreign Trade and Economic Relations of BiH; Ministry of Spatial Planning, Civil Engineering, and Ecology of Republic of Srpska; Ministry of Environment and Tourism of FBiH; Fund for environmental protection of FBiH; The Environmental Protection and Energy Efficiency Fund of RS		
Project Financing	*at CEO endorsement (US$)*	*At Terminal Evaluation (US$)*
[1] GEF financing:	2,370,000	2,055,498.88
[2] UNDP contribution:	4,500,000	4,500,000.00
[3] Government:	37,550,627	24,502,750.79
[4] Other partners:	N/A	N/A
[5] Total co-financing [2 + 3+ 4]:	42,050,627	29,002,750.83
PROJECT TOTAL COSTS [1 + 5]	44,420,627	31,058,249.71

[1] Based on the Mid Term Review with updated data as of December 2023 provided by the project team.

Project Description

The rationale for the Catalyzing Environmental Finance for Low-Carbon Urban Development (LCUD) project stems from the history of neglect and under-investment in urban infrastructure in Bosnia and Herzegovina (BiH), spanning not just public and residential buildings but also energy systems and utilities, waste management, and transport. The objective of the project is to leverage investment for transformational shift towards low-carbon urban development in BiH thereby promoting safer, cleaner, and healthier cities and reducing urban greenhouse gas (GHG) emissions. This transformational shift is to be achieved through provision of technical support towards the implementation of technically and economically feasible low-carbon solutions in key urban sectors, and promoting their wider uptake by municipalities and private sector via dedicated financial mechanisms. In this respect the project's design involves 4 Components: Support to Environmental Finance Institutions (Component 1); Local Capacity Support & Engagement - public facilities and utilities (Component 2); Local Capacity Support & Engagement - Waste management and logistics/transport (Component 3); and LCUD Enabling Environment (Component 4).

Table 2: Evaluation Ratings Table

Monitoring & Evaluation (M&E)	Rating[2]
M&E design at entry	Satisfactory
M&E Plan Implementation	Satisfactory
Overall Quality of M&E	Satisfactory
Implementation & Execution	**Rating**
Quality of UNDP Implementation/Oversight	Satisfactory
Quality of Implementing Partner Execution	Satisfactory
Overall quality of Implementation/Execution	Satisfactory
Assessment of Outcomes	**Rating**
Relevance	Satisfactory
Effectiveness	Satisfactory
Efficiency	Moderately Satisfactory
Overall Project Outcome Rating	Satisfactory
Sustainability	**Rating**
Financial resources	Moderately Likely
Socio-political/economic	Likely
Institutional framework and governance	Moderately Likely
Environmental	Likely
Overall Likelihood of Sustainability	Likely

[2] Outcomes, Effectiveness, Efficiency, M&E, Implementation/Oversight & Execution, Relevance are rated on a 6-point scale: 6=Highly Satisfactory (HS), 5=Satisfactory (S), 4=Moderately Satisfactory (MS), 3=Moderately Unsatisfactory (MU), 2=Unsatisfactory (U), 1=Highly Unsatisfactory (HU). Sustainability is rated on a 4-point scale: 4=Likely (L), 3=Moderately Likely (ML), 2=Moderately Unlikely (MU), 1=Unlikely (U)

Summary of Main Findings and Conclusions

- The LCUD project has achieved and surpassed most of its end of project targets, implementing 65 LCUD infrastructure projects and exceeded its target by reaching a total of 164,677[3] beneficiaries.
- The project had a slow start due to complex legal and procedural obstacles, COVID-19 restrictions, and frequent staff turnover. After restructuring the project team in 2021, a tremendous amount was accomplished and, with the project extension, most targets have been met. The cumulative delivery increased from 37% by 2021 to 58 % by 2022 to an impressive 80% by 2023.
- UNDP provided invaluable capacity filling a critical gap within government offices, while their oversight and technical expertise facilitated successful interventions.
- The project was well aligned with global, national and local agreements, strategies, and development plans. Although in some cases they were not aligned with community priorities, which inhibited implementation.
- The project's partnerships laid a strong foundation for implementation and sustainability. In addition to the central partnership with Project Board members, the project developed partnerships with the Chambers of Commerce, public utility companies, municipalities, public institutions and enterprises, and cantonal institutions.
- Interventions to reduce GHG emissions in waste management and transportation received a smaller portion of project resources, appropriate to the nature of activities for this component. However, the project design was too expansive and this component lacked a sufficient roadmap and technical support to be fully successful. The project established digital waste management systems that function in both entities and provide data intended to inform planning and decision-making. While stakeholders felt mixed about the effectiveness of the outputs from the green logistic scheme for waste management, with satisfaction of the eco-islands and disappointment with the accuracy and feasibility of the waste removal routing studies.
- The project created an innovative financial mechanism through the Environmental Funds that facilitated the project's implementation and the government's commitment to the project's success.
- Building the capacity of Small and Medium Enterprises (SMEs) by conducting trainings and developing written resources were key factors to ensuring capacity in conducting the ESCO model during and after the project.
- The project laid the groundwork for Energy Service Company (ESCO) implementation through its drafting and advocating for the passage of 65 bylaws, regulations, legal analysis and strategic documents at the local, entity and state-level.
- The vast majority of co-financing was 19,222,464 USD, which was realized through the Fund for Environment of the Federation of Bosnia and Herzegovina (FBiH) public calls for projects that advanced energy efficiency, renewable energy, air quality, transport and waste

[3] The total reported beneficiaries was 204,394. However, an estimated 39,717 beneficiaries for Zvornik Recycling Yard, which had been stopped prior to implementation.

management and 4,426,126.22 USD through the Environmental Protection and Energy Efficiency Fund of the Republic of Srpska (RS) public calls for projects in waste management, energy renovation and urban transport.

- Although an exit strategy was not designed, numerous activities to facilitate sustainability have been and are being implemented, most significantly the deep engagement of government actors at all levels, the enhanced legal infrastructure, and the public facility systems being maintained for 10 years by ESCO companies with the ownership then passed to the beneficiaries.
- Women's participation in capacity building was over 50% women on the operation of the ESCO Fund and other financing mechanisms, and about 40% women in trainings on energy management and LCUD project design and implementation. Participants were included from all entities, ensuring a mixture of the main ethnicities in the country. However, there were no goals nor efforts beyond these to address women's empowerment and inclusion of other vulnerable or underserved groups were integrated into the project design or implementation.
- Some South-South and Triangular Cooperation (SSTC) was integrated into learning activities for project staff, specifically with similar projects in UNDP Croatia and UNDP Serbia.
- Some evidence points to progress towards impact; such as the current estimation that the project will have contributed to a minimum 118,763.81 tCO2eq to 184,583.35 tCO2eq emissions reduced over their lifetime; 164,677 people have benefited from the project, including 50,8% women; the development of 65 local, entity and state-level regulations, legal analysis and strategic documents; and reached over 1 million citizens through online promotion and another 1 million citizens through TV media.

Lessons Learned

- Lesson #1: The ESCO model fills an important need in BiH.
- Lesson #2: Direct Implementation better supports innovation.
- Lesson #3: Adaptive management is key to success.
- Lesson #4: Exit Strategy should be developed during the project design phase.
- Lesson #5: Legal infrastructure is critical for ensuring sustainable implementation.
- Lesson #6: Knowledge sharing and transfer supports implementation and sustainability.
- Lesson #7: Credit or revolving financing for ESCO companies.
- Lesson #8: Multi-stakeholder engagement is critical for buy-in and country/local ownership.
- Lesson #9: Coordination with similar projects leverages resources and contributes to a stronger impact.

Table 3: Recommendations Summary Table

	Recommendations	Timeframe	Responsible Party	Supporting Evidence
	For the LCUD Project			
1.	**Articulated Exit Strategy** A number of activities providing support for country ownership are being conducted. However, a clear articulation of an exit strategy could facilitate efficient transfer of ownership. Activities in addition to those already underway may include: a path for continued capacity building and resources for ESCO Associations; a process for knowledge transfer to new municipalities (such as, peer support, buddies, site visits); alignment of the financial mechanism with the National Investment Framework; a process to continue monitoring Waste Management Plans; and promotion of relevant entities registered into the Waste Management Systems.	By March 2024	UNDP	**Criteria:** Effectiveness and Sustainability
2.	**Sharing and Transferring Knowledge across UNDP and GEF** Learnings should continue to be shared among other countries within the region and globally. This could be accomplished through study visits, written communications, participation in webinars, conferences, etc. Another option might be site visits or intentional interactions between similar level officials from other countries with BiH partners facilitated by UNDP	Continual	UNDP	**Criteria:** Effectiveness and Sustainability
	For Future Similar Projects			
3.	**Focused project design** Future projects should be designed with one clear focus (such as waste management or implementing the ESCO model), while continuing to include flexibility in implementation with an integrated approach that addresses legal and procedural challenges at different levels of government.	As applicable for future projects	UNDP/ GEF	**Criteria:** Effectiveness and Efficiency
4.	**Increased community involvement and women-owned organizations**	Continual	UNDP/ Environmental Funds	**Criteria:** Effectiveness, Gender and Women's

	To further support UNDP in achieving its goals of gender equality and leave no one behind, future projects should: ● Continue building the capacity of SMEs with a strong preference to women owned SMEs or those with at least 50% women on staff. ● Build capacity and prioritize opportunities for women to advance within the waste management sector. ● Integrate community involvement to strengthen alignment with public priorities, potentially through participation on the Project Board, dialogue with community members throughout each intervention.			Empowerment, and Leave No One Behind
5.	**Seek economies of scale for the ESCO model** The ESCO model would be more cost effective and increase impact if projects were broadened to a larger scale within a municipality, *once a sufficient number of SMEs are strengthened to competitively compete for contracts.*	Continual	Environmental Funds	**Criteria:** Effectiveness
6.	**Incentivized products with lowest GHG emissions** Although products utilized in the project were selected because of their reduction in GHG emissions, the project should incentivize the selection of products that will most significantly reduce GHG emissions, such as the use of heat pumps versus biomass systems.	As applicable for future projects	Environmental Funds	**Criteria:** Effectiveness and Sustainability

1. Introduction

1.1 Evaluation Purpose

The United Nations Development Programme (UNDP) and Global Environment Facility (GEF) Monitoring and Evaluation policies and procedures require a Terminal Evaluation (TE) for the full-sized project "Catalyzing environmental finance for low-carbon urban development" (LCUD). The overall purpose of this Terminal Evaluation is to assess the achievement of project results and outcome, to identify impacts of project efforts, and to draw lessons to improve sustainability of benefits from this project and aid in the overall enhancement of UNDP programming. The Evaluation findings will also be used to promote accountability and transparency of the project's overall performance and work.

1.2 Scope of the Evaluation

This TE reviewed all interventions that have been implemented as part of the LCUD project and their influences or contributions to change from December 1, 2017 through December 31, 2023.

As per the TOR, the objectives for this TE are to:

- Assess the overall Project progress vis-à-vis the Result Framework based on data, qualitative information and evidence on results and identify critical gaps or delays;
- Establish the relevance and coherence, effectiveness, efficiency, performance, and success or failures of the project, including the sustainability of results and the project exit strategies;
- Assess external environment and risks, such as crisis caused by the pandemic, as well as internal, including weaknesses in programme design, management and implementation, human resource skills, and resource
- Engage all relevant stakeholders (institutions, state, entity and cantonal ministries, local governments, the international community, etc.) in structured conversations, which will enable collective insights and distilling of key lessons learned in relation to (signals of) transformative change induced by the Project, mistakes, as well as important cross-cutting issues, such as innovation, gender equality and leaving no one behind;
- Use different level analysis to generate understanding of change processes and assess how this change was made and the what specific contributions of the Project;
- Formulate strategic recommendations for consideration by the Project owners and its partners (Project Board, UNDP, GEF and other relevant stakeholders), towards more effective Project implementation in the future, or adjustments, as needed.

The project was implemented across the state, entity, canton, and municipal levels. Working in close collaboration with the Project Management Unit (PMU), a sample of stakeholders participated in the evaluation exercise, such as Project Board members, local government officials, and beneficiaries. (See Annex L)

Aligned with GEF requirements, the TE assessed project performance according to the results model developed during the project's design phase with focus on four components: 1) Innovative Financing Mechanisms for Implementation of Low-Carbon Urban Development Concept; 2) Low-carbon public buildings and utilities; 3) Low-carbon waste management and (transport); and 4) National and sectoral policies, institutional coordination and awareness raising on low carbon urban development.

1.3 Methodology

Our approach is anchored in principles of human rights, emphasizing people-centered and appreciative methods with a strong commitment to a participatory and culturally sensitive process. Recognizing the importance of gender responsiveness, our methodology was designed to be inclusive and reflective of diverse perspectives. This TE was conducted in accordance with the Guidance for Conducting Terminal Evaluations of UNDP-Supported, GEF-Financed Projects and OECD-DAC standard evaluation criteria and principles.

To assess the relevance, efficiency, effectiveness, sustainability, impact and cross cutting issues as provided in the TOR, more specific evaluation questions were developed and further refined during the inception phase. A detailed evaluation matrix was then prepared, which outlined the evaluation criteria, main evaluations questions, data sources and methods and indicators to serve as a roadmap for the implementation of the TE. (See Annex E)

A mixed methods approach was employed to ensure data collected from a range of perspectives and depth of understanding. The evaluation employed a combination of purposive and convenience sampling strategies. To ensure a comprehensive and representative sample across diverse groups and levels, a stakeholder mapping initiative was collaboratively conducted with support from the PMU, resulting in a list of key informants from UNDP, GEF, Project Board, local governments, and beneficiaries. (See Annex C & L). Rating scales provided by the GEF guidelines were utilized to assess the overall results of the project. (See Annex H)

The evaluators facilitated an inception phase with a preliminary desk review and in close collaboration with the PMU to appropriately design the evaluation process, a data collection phase to gathering data from primary and secondary sources, and an iterative data analysis and reporting phase where representatives from the UN and project partners had opportunities to provide inputs during a debriefing and/or written feedback to inform the final TE report.

1.4 Data Collection & Analysis

To best meet the objectives of this evaluation, the evaluation team collected data through:

- Systematic desk review of all relevant project documents provided by the project team (See Annex D)

- Key informant and semi-structured interviews (in-person and virtual) crafted to inform the evaluation questions in greater depth (See Annex F)
- Pilot site visits and spot checks in selected locations to interview key stakeholders and groups, validate project activities and innovations, and obtain feedback from recipients of project training and other initiatives
- Online survey to a sample of participants in the trainings to gather insights into their experiences with the trainings and their usefulness.

Data analysis was conducted through an iterative process framed by the Evaluation Matrix and GEF TE requirements to ensure a robust and nuanced assessment. A debriefing workshop with key stakeholders validated and enriched the analysis, while ensuring practical, actionable recommendations. This process resulted in an evidence-based analysis with triangulated data that ensures credible, reliable and useful findings. The analysis also included an assessment of the project's exit strategy, focusing on sustainability and scalability.

1.5 Ethics

The TE has been conducted through a lens of the values and obligations outlined in the UNEG 'Ethical Guidelines for Evaluators.' In accordance with the guidelines, our evaluation team employed a practice of respecting people's right to provide information in confidence and informed participants about the scope and limits of confidentiality, while ensuring that sensitive information cannot be traced to its source. This final TE report does not indicate any specific information that can be traced to an individual participant. Our evaluation team consisted of international and national independent consultants, who had no prior involvement in project and work with the highest degree of integrity. A signed Code of Conduct form is included as Annex I.

1.6 Limitations

As with all evaluations, each has their own set of limitations. The following limitations relate to this Terminal Evaluation:

- Duration of the field mission is limited, due to scheduling needs of the project and availability of the consultant. Therefore, it was agreed that data collection will be conducted with a combination of a 5-day field mission and online methods.
- Availability of interview participants may be limited due to busy schedules during the timeframe of this evaluation. However, support from the Project Management Unit (PMU) in outreach and flexibility in including other participants who fit the criteria can be added.
- Condensed time frame for the evaluation will be overcome by the evaluation team working intensively, both collaboratively and in parallel to ensure the highest quality report.
- Language issues will be addressed by employing two consultants responsible for data collection. This approach ensures that questions are presented in the preferred language of the stakeholders or groups being interviewed, thereby facilitating effective communication.

1.7 Structure of the Terminal Evaluation Report

This Terminal Evaluation Report provides detailed findings using the framework outlined by UNDP-GEF in the TOR and the TE Guidelines 2020. Overall conclusions, lessons learned and actionable recommendations have been developed based on the detailed finding. The main contents of the TE Report include: 1) Executive Summary; 2) Introduction; 3) Project Description; 4) Findings framed according to project design, project implementation, and project results and impacts); and 5) Conclusions, Recommendations and Lessons Learned.

2. Project Description

2.1 Project Start and Duration

The official start date for the project was December 1, 2017 and its completion date has been extended to June 1, 2024.

Table 4: Project Milestones

Key Project Dates/Milestones	
PIF Approval Date	*Jun 8, 2016*
CEO Endorsement Date	*Aug 2, 2017*
Project Document Signature Date	*Dec 1, 2017*
Date of Inception Workshop	*May 28, 2018*
Expected Date of Mid-term Review	*Jun 1, 2020*
Actual Date of Mid-term Review	*Sep 24, 2020*
Expected Date of Terminal Evaluation	*Sep 1, 2022*
Actual Date of Terminal Evaluation	*February, 2024*
Original Planned Closing Date	*Dec 1, 2022*
Revised Planned Closing Date	*June 01, 2024*

2.2 Development Context

Bosnia and Herzegovina (BiH) has a complex governance structure comprised of state-level authorities, as well as the Federation of Bosnia and Herzegovina (FBiH) and the Republic of Srpska (RS), with Brčko District of Bosnia and Herzegovina as an autonomous self-government, 10 cantons within the FBiH and 145 local governments. Political instability continues to slow progress in structural reform, economic stabilization, poverty reduction, and issues around inequality and

outmigration. The COVID-19 pandemic, the crisis in Ukraine and inflation have exacerbated these challenges, particularly for youth, women, and other marginalized groups.

The BiH economy exhibits a high level of carbon and energy intensity, with women disproportionately excluded from control and access to environmental resources and decision-making in the area of energy and environment. The country has been confronted with challenges to secure funding to support its commitment to achieve its Sustainable Development Goals (SDGs) targets for 2030.

BiH is highly dependent on fossil fuels both as an energy source and employment opportunity. Air pollution affects all residents of BiH and about 3,300 people die prematurely every year because of it. However, a shift in European Union carbon tax regulations have caused an estimated 22% drop in export and 2,461 laid off workers.

BiH's policy framework, in particular with regard to international frameworks, started with its ratification of the United Nations Framework Convention on Climate Change in 2000 and has thus far submitted its Initial and Second National Communications (both in 2013), Third National Communications (2016) and Fourth National Communications (2023). BiH developed its Updated Nationally Determined Contribution (NDC, 2021) by adopting the Strategy for Climate Change Adaptation (2013) and The Climate Change Adaptation and Low Emission Development Strategy 2020-2030 for BiH (2020), the Low Emission Development Strategy for BiH (2013), the National Emission Reduction Plan for BiH (2013), and signing the Paris Agreement (April 2016) and its ratification (October 2016).

The draft National Energy and Climate Plan (NECP) outlines a strategy that includes the decommissioning of coal power plants with the intention of transitioning some plants to biomass, as well as initiatives to harness clean energy sources, such as wind and solar. UNDP and the Global Environment Facility (GEF) have been supporting the Energy Service Companies (ESCO) model in BiH, enabling the development and delivery of energy services with reduced financial risk. The ESCO model has become an important example in the EU demonstrating effective ways of mobilizing private capital, as well as job-creation opportunities, while facing challenges in national cooperation in BiH, including federal regulations and legislation.

BiH has adopted the decision for a coordination system as part of their European integration process[4]. To that end, BiH has developed operational and institutional systems, as well as coordination among institutions regarding implementation of activities related to the process of integration of BiH into the EU. However, progress towards EU reforms[5] is limited.

Overall, BiH has made strides towards increasing its employment of renewable energy sources, improving its energy efficiency, and aligning with EU standards, although strategic and collaborative efforts will be necessary to address the challenges.

[4] Official Gazette of BiH, No. 72/16 and 35/18.
[5] The Fourth National Communication (2023). https://unfccc.int/sites/default/files/resource/FNC%20BiH_ENG%20fin.pdf

2.2.1 Theory of Change

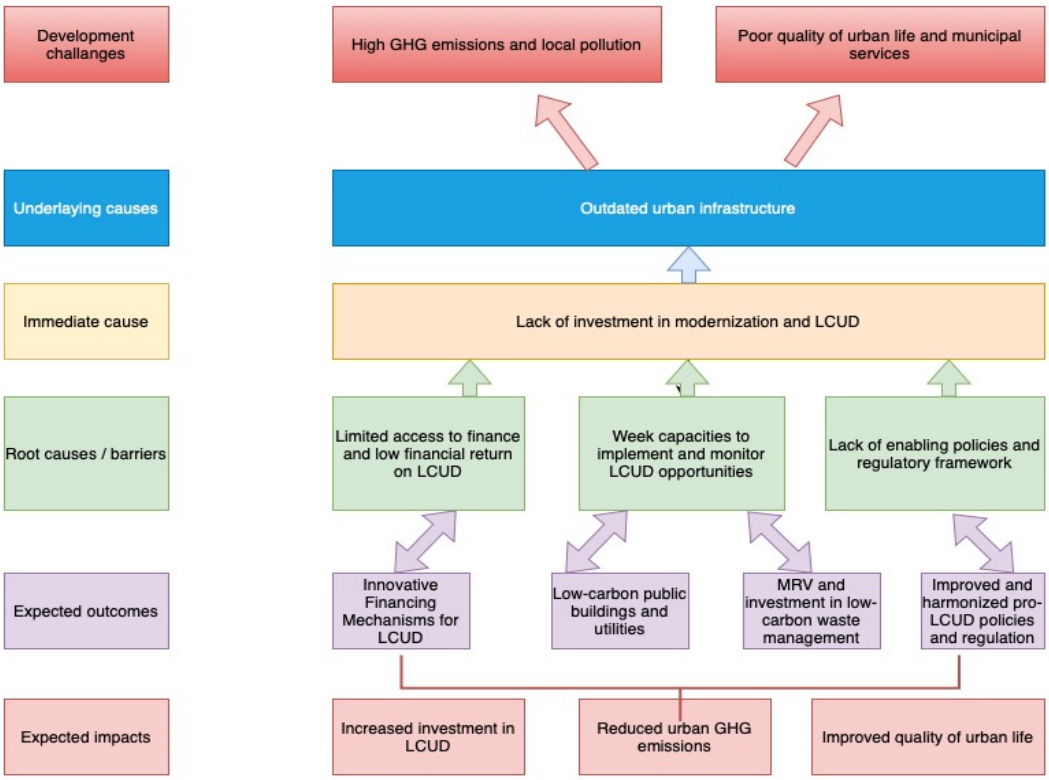
The main objective of this project was to "leverage investment for transformational shift towards low-carbon urban development in Bosnia and Herzegovina thereby promoting safer, cleaner, and healthier cities and reducing urban GHG emissions. To enable this transformational shift, the project [planned to] facilitate implementation of technically and economically feasible low-carbon solutions in key urban sectors, and promote their wider uptake by municipalities and private sector via a dedicated financial mechanism established within the national environmental finance framework. The project will also accelerate the implementation of a policy and regulatory framework supportive of low-carbon investment in cities."[6]

The project adopted a Theory of Change (ToC) that delineated the developmental challenges such as high greenhouse gas (GHG) emissions, pollution, poor urban living conditions, and municipal service quality. The ToC outlined the immediate cause, outdated urban infrastructure, and the underlying cause, a lack of investment in modernization and low-carbon urban development. It also identified root causes and barriers, establishing a hierarchy of expected project outcomes to overall impact in alignment with specific political, regulatory, financial, technical, and environmental risks and assumptions.

To address these barriers related to inadequate access to finance, local capacities, and policy and regulatory frameworks for Low-Carbon Urban Development (LCUD), the project employed a three-pronged approach. This involved supporting key environmental finance institutions, working at the local level with public authorities to build their capacities, and designing policies and regulations for scaling up low-carbon investment. Additionally, the project included a national awareness-raising and advocacy campaign to garner public support and promote behavioral changes toward low-carbon urban living.

[6] LCUD Project Document, UNDP 2017.

Figure 1: Project Theory of Change



Four project components were developed to focus efforts across various sectors and with multiple stakeholders (including private and public), to better address the complexity of the issue.

- *Component 1.* Innovative Financing Mechanism for Implementation of Low-Carbon Urban Development Concept (LCUD) addresses the identified financial barriers by strengthening the EFs' capacity to finance infrastructural LCUD projects.
- *Component 2* Low-carbon public facilities and utilities addresses the municipalities' lack of capacity to prepare and implement infrastructural LCUD projects in public buildings and utilities.
- *Component 3* Low-carbon waste management and logistics (transport) addresses identified shortcomings in municipal capacities for LCUD in the waste management and logistic sector.
- *Component 4* National and sector policies, institutional coordination and awareness raising on LCUD addresses gaps in the enabling environment for LCUD at state and entity levels by promoting the adoption and supporting enforcement of essential policies and regulations, institutional coordination (vertical and horizontal) among relevant public authorities, and providing targeted capacity building and training support to relevant authorities.

2.2.2 Main Stakeholders

The project sought to achieve these goals by leveraging investments for transformational shift towards Low-carbon Urban Development (LCUD) in BiH, which would lead to safer, cleaner, and healthier cities and reduce urban GHG emissions. A total of USD 44,420,627 in co-financing was achieved with contributions from GEF (USD 2,370,000), UNDP (USD 4,500,000), and the government of BiH (USD 37,550,627). The project was intended to contribute to or influence the actions of a wide range of stakeholders, including beneficiaries from the public and private sectors, as well as the general public, vulnerable groups, workers, educators, and CSOs. The main stakeholders of the project were state and entity level offices who were involved from the start and participated in the project board.

Table 5: Main Stakeholders

Main Stakeholders
Ministry of Foreign Trade and Economic Relations of BiH
Ministry of Spatial Planning, Civil Engineering and Ecology of RS
Ministry of Environment and Tourism of the Federation of Bosnia and Herzegovina
Environmental Fund of the Federation of Bosnia and Herzegovina
Environmental Protection and Energy Efficiency Fund of RS

3. Findings

3.1 Project Design and Formulation

3.1.1 Analysis of Results Framework: project logic and strategy, indicators

The Theory of Change (TOC) sufficiently articulated a simplistic and clear pathway to change by placing a central emphasis on change pertaining to climate change goals linked to the UNFCCC and particularly on financing to spur national and local energy efficiency and sustainable energy solutions. It posited that investing in renewable energy and local innovations would promote low-carbon development, effectively overcoming existing barriers. The core idea being that substantial funding, facilitated by innovative financing mechanisms combined with training for government personnel and educational support for the development of policies on low-carbon development would lead to successful implementation of training and outreach to local users.

The accompanying Results Framework revealed a particular focus on addressing climate change through the innovative financing mechanisms designed to stimulate policy and financing initiatives, while lacking clarity of the concept and indicators associated with climate change and missing qualitative indicators which would provide insights into context and complexity. Most, but not all, indicators were aligned with the SMART criteria (specificity, measurability, achievability, relevance, and time-bound aspects). They were generally of quantitative and qualitative nature, but in some cases indirectly measured indicators (i.e. fuel and energy savings) posing challenges in measurability. However, in response to the MTR, the target revisions were appropriate and attainable given the slow progress of the first years of the project.

The project employed a Theory of Change (ToC) approach showing the development challenges (high GHG emissions and pollution, poor quality of urban life and municipal services), immediate cause (outdated urban infrastructure), underlying cause (lack of investment in modernization and lo-carbon urban development) and the root causes/ barriers, as well as a hierarchy of expected results of the project, from outcomes to overall impact that has been identified in accordance to specific political, regulatory, financial, technical and environmental risks and assumptions.

Outcomes and outputs were consistent with the Theory of Change focusing on removing the three main groups of barriers related to inadequate access to finance, local capacities, and policy and regulatory framework for LCUD. The project adopted a three-forked approach aiming to support key environmental finance institutions (i.e. two Environmental Funds) to establish innovative financial mechanisms for LCUD (Component 1); to work at the local level with relevant public authorities to build their capacities to identify, carry out and monitor low-carbon projects in key urban GHG emitting sectors (energy and waste), public facilities and utilities (Component 2) and waste management and logistics/transport (Component 3). Moreover, the project supported design and adoption of policies and regulations to enable the scale-up low-carbon investment at the entity/sub-national level working with relevant public authorities (Component 4). In addition, the project foresaw the need for national awareness raising and an advocacy campaign securing public support and promoting behavioral changes towards low-carbon urban living in Bosnia and Herzegovina.

Broader development and gender aspects of the project were monitored effectively. However, the indicators for gender and leave no one behind were particularly weak. There were some indicators on participation for women, but none for other marginalized or vulnerable groups. Furthermore, there were no indicators focusing on the more complex issues that would change current power dynamics and traditional behaviors to better target inclusion and advance empowerment of women and other marginalized or vulnerable groups. Due to the specific skills needed to implement efforts in low-carbon development, the project mostly engaged with the energy and construction sectors, which had a predominantly male workforce in Bosnia and Herzegovina. Furthermore, the limited mainstreaming of gender and LNOB in the project design and Results Framework did provide a roadmap to better address these socio-economic aspects and challenge the norms and current power structures through strategies that would encourage the advancement of women in the field (i.e. women owned businesses or women taking on leadership roles within partner organizations) or

targeting engagement, activities or site selection taking into account other vulnerable groups, such as the Roma population or those living in poverty.

3.1.2 Assumptions and Risks

Although not specifically articulated in the Theory of Change, assumptions could be extrapolated from the barriers outlined in the project document as:

1. *Environmental Finance Institutions' Engagement:* The engagement and support of key environmental finance institutions are critical to creating an innovative financing mechanism for LCUD implementation.
2. *Local Government Capacity Building:* Building the capacity of local governments is essential for the identification, implementation, and monitoring of low-carbon projects across various urban sectors.
3. *Policy and Regulatory Framework Adoption:* Collaboration with state and entity-level authorities is expected to result in the design and adoption of policies and regulations that facilitate the scaling up of low-carbon investments.
4. *Public Support and Behavioral Changes:* Conducting awareness campaigns and advocacy efforts are assumed to contribute to securing public support and promoting behavioral changes towards low-carbon urban living.

In relation to the Theory of Change and its implied assumptions, the project document identified a number of risks outlined in the Risk Log[7], along with planned mitigation measures to address these potential issues during project implementation. Following are the details of these risks that include some underlying assumptions and management responses. An assessment of these risks and measures has been provided in section 3.2.6 related to risk management and effects on project performance.

Table 6: Risks and Counter-measures Outlined in the Project Document

	Description	Counter-measures/ Management Response
1.	The risk that a consensus between BiH entities and state level regarding the design of harmonized policies and financial support mechanism for LCUD is not reached.	Recognizing complex administrative and political structure in BiH, the project will work with and support both entities, FBiH and RS separately at first to design the financial support mechanism for LCUD, which is appropriate for each entity. To ensure harmonized approaches among entities, the project will work with MOFTER and facilitate inter-entity dialogue and exchange of experiences and approaches.
2.	Complex administrative and governance structure in BiH coupled with low capacities of	Design of the project strategy and its implementation structure has taken into account BiH's administrative complexities and the need to address policy and regulatory risk.

[7] Project Document, Annex I.

	public authorities, in particular at local level, poses risks related to the ability of relevant bodies to undertake and enforce required policy and regulatory changes, in particular as far as creation of enabling environment for private investment in low carbon public facilities is concerned.	• At the entity level, the project will strengthen capacities of the two EFs to facilitate investment in infrastructural LCUD projects • At the local or municipal level, the project will support preparation, upgrade and adoption of municipal SECAP's as a key policy instrument • At the national level, the project will work with relevant entity authorities and MOMFTER to facilitate inter-entity dialogue and harmonization The fact that the project will be directly implemented by UNDP will additionally help mitigate the risk because of UNDP's impartiality and ability to negotiate and reach consensus between the entities, as has been demonstrated in the course of the project design, which received full support of the stakeholders, at both entity level and local levels across BiH.
3.	Financial risk is related to the fact that the municipalities' and EFs' resources currently available to support LCUD investments are based on annual budget decisions, which can be subject to major changes and/or increased budget constraints.	Co-financing letter obtained from the EFs to support the mentioned demonstration projects with at least USD 40 million over the duration of the project. The risks will also be overcome by supporting EFs to diversity and strengthen their funding base, including the work on operationalization of the polluter-pay-principle and strengthening capacities to access international funding sources.
4.	Technology risk that due to technical failures of the equipment and/or software used for EMIS and/or for the targeted follow up LCUD investments, the trust of the key stakeholder and investors on EMIS and on the promoted measures is lost.	This risk is considered as low due to the fact that the targeted technologies are based on common and well-proven technologies and the EMIS software and the rest of the system has already been tested and has been operational for several years in BiH and Croatia, Serbia and Malaysia.
5.	Environmental/ climate change risk that global increase in temperature will reduce demand for energy (especially in winter) and therefore reduce the rationale for increased investments in energy efficiency.	Temperature increases in the near future, according to the most recent IPCC estimates even under the business as usual scenario, are not expected to be so high that they would completely remove the need for heating of the building stock in BiH during winter. In fact, increased temperature variability may make the metering and automatic control of energy use even more important for cost and energy savings. Warmer summers may also increase the demand for cooling. The project will also work closely with the UNDP-SCCF project addressing resilience issues at the municipal level to identify the most critical risks and measures to address them within the

		scope of the project. One proposed measure is to support review of the land-use planning policies and regulations in BiH jointly with UNDP-SCCF, and come up with revisions incorporating various sustainability aspects in urban land-use planning, including low-carbon and climate resilience.

3.1.3 Lessons from other relevant projects (e.g. same focal area) incorporated into project design

The LCUD project was developed to leverage efforts of the UNDP Green Economic Development (GED) project (2013-2018). LCUD was designed to further existing partnerships with Environmental Funds and municipalities by building the capacity of sub-national and cantonal public facilities in operationalizing the EMIS and expanding the database to cover all types of municipal facilities and resources used. In addition, results from technical and economic analyses of EE-RE retrofit projects conducted in the GED project informed the design of the LCUD project.

A partnership with the Environmental Funds was initiated under the GED project where they developed a revolving lending approach, which was continued in the LCUD project. Another benefit carried from the GED project into the LCUD design were project identification and formulation services offered with UNDP funds.

3.1.4 Planned stakeholder participation

UNDP was the Implementing Partner for this project by employing the Direct Implementation Modality (DIM) and has been responsible for managing the project, including the monitoring and evaluation of project interventions, achieving project outcomes, and effectively using UNDP resources. A Project Board was established to provide a forum for key government stakeholders to be actively involved in the guidance and oversight of the project, including the Ministry of Foreign Trade and Economic Relations of BiH; the Ministry of Spatial Planning, Civil Engineering, and Ecology of the RS; the Ministry of Environment and Tourism of FBiH; the Fund for environmental protection of the FBiH; The Environmental Protection and Energy Efficiency Fund of the RS.

Stakeholders were engaged from the outset with 41 representatives (50% women) from different institutions (including different governmental levels, international organizations, CSOs, SMEs, etc.) were consulted as the project was being designed. The project document indicated that Civil Society Organizations (CSOs) representing Bosniaks, Croats and Serbs, as well as smaller minority groups would be closely involved in the project. More specifically, the Regional Education and Information Center for Sustainable Development in South-East Europe would coordinate activities of the regional Urban Empathy project for BiH aimed at bringing together projects, policy makers and stakeholders to share concrete results to improve the efficiency of sustainable urban policies in the Mediterranean region; the Center for Development and Support would be involved in several educational and

awareness raising activities; the Center for Education and Raising Awareness of Energy Efficiency would provide technical services and implementation of energy efficiency projects in BiH.

SMEs were central in the project design for delivery mechanisms for infrastructural LCUD projects' design and implementation. They were considered the key driver for market transformation, such as interventions switching from coal or oil to biomass for heating systems in public facilities.

3.1.5 Linkages between project and other interventions within the sector

The LCUD project intended to work closely with the UNDP-GEF Third National Communication (TNC) project to support the EMIS for data collection at the local level, which would then be aggregated into the entity and national MRV systems for waste and energy management. The LCUD project also foresaw linkages with the UNEP-GEF "Capacity Development for the Integration of Global Environmental Commitments into National Policies and Development Decision Making" project supporting the establishment of a central environmental information and monitoring system for key environmental indicators with a focus on the local and municipal levels, which would be fed into the central system to be supported by the UNEP-GEF project.

Building on the Memorandum of Understanding on “Energy Efficiency Donor Coordination in BiH” (2012), the LCUD project worked in collaboration with GIZ’s “Energy Efficiency Consultancy BiH” project on policy issues. The project also planned to work with the World Bank’s “Energy Efficiency Project”, which was providing financing for energy efficient retrofits of public buildings.

Another UN-related project that had synergies with the LCUD project was the GEF Sustainable Cities Integrated Approach Pilot (SC IAP) utilized a holistic approach to sustainable city development, with two tracks. The World Bank led the track for the Global Platform for Sustainable Cities (GPSC) and the project would employ the GPSC for knowledge management, both as a resource for their own learning as well as sharing their experiences with others. The LCUD project also worked with the UNDP-GCF Project: “Scaling-up Investment in Low-Carbon Public Buildings”.

3.1.6 Gender responsiveness and social inclusion of project design

Gender was defined as an important cross cutting theme for the project. Although the LCUD project would affect communities as a whole, there were the differences in impacts on women and men that the project design took into consideration. The project utilized a multi-dimensional approach that included social transformation and changes in production patterns and technologies, such as recognizing the differences women and men have in terms of energy needs and how that influences the ability to reduce GHG emissions. The project planned to facilitate gender mainstreaming by disaggregating key monitoring data on female participation, developing and implementing strategies and policies to close the gaps between women and men, and holding individuals and institutions accountable for outcomes that promote gender equality.

The project design included learnings about the EMIS from South-South Triangular Cooperation (SSTC) with the UNDP-GEF Energy Efficiency Project in Croatia. Additional ways that SSTC was envisioned was through bilateral knowledge exchanges and technology transfer with other UNDP-GEF projects in the region, knowledge sharing across UNDP and GEF SC IAP and its GPSC globally, engaging with information exchange platforms that promote sharing results and lessons learned. The project specifically anticipated learning from UNDP-GEF projects in Serbia and Kazakhstan and sharing LCUD's experiences among BiH municipalities and across the Western Balkans, as well as planned to cooperate with donors and agencies through the Energy Efficiency Donor Coordination in BiH.

3.1.7 Social and Environmental Safeguards

The project completed the social and environmental screening procedure,[8] which ensured that the project complied with UNDP Social and Environmental Standards outlined at that time.[9] It was determined that the Environmental Impact Assessment (EIA) was not required given the type and scale of EE investments according to the project document due to relevant provisions of laws on environmental protection and regulations at the entity and cantonal levels ensuring proper environmental procedures are followed. However, it should be noted that EE-RES related interventions and activities in the building sector were not subject to EIA and did not require the issuance of environmental permits for such projects. Retrofitting of a building was classified as building 'maintenance', which eliminated the need for obtaining any kind of permits. Further, in case of RES system installation with capacity below 1MW only for combustion based) there is no need to obtain an environmental permit.

The social and environmental screening resulted in an overall moderate score with two major risks:

- Retrofitting may involve safety risks to workers, lead to generation of hazardous waste (i.e. asbestos) and also disturb operations of public facilities. To mitigate this risk, the project planned to develop an Environmental and Social Management Plan at each site, once selected. Since the projects went through a public procurement process that was managed by the relevant government offices. The local projects did follow relevant laws and regulations.
- Climate-related risks, such as increased temperatures, may impact the project's implementation and effectiveness by increasing or decreasing energy demand, increasing flooding, limiting water availability, or increasing the frequency and intensity of heatwaves, or other events. The project anticipated that, although higher temperatures may decrease heating demands, summers will then have increased energy demands for cooling, as well as varying or unpredictable temperatures will benefit from a metered and automatically

[8] LCUD Project Document Annex F, UNDP 2017.
[9] UNDP Social and Environmental Standards, updated, effective January 2021. https://ses-toolkit.info.undp.org/sites/g/files/zskgke446/files/2023-03/UNDP%20Social%20and%20Environmental%20Standards_2019%20UPDATE_rev%202023.pdf?_gl=1*np9qg1*_ga*NzM5OTc0MTgyLjE3MDQyMDg0NzM.*_ga_3W7LPK0WP1*MTcwODk1NjEyNS4xMy4xLjE3MDg5NTYxNTQuMzEuMC4w

controlled system. Therefore, these LCUD interventions were still expected to be beneficial. The project also planned to address resilience issues through the scope of each individual intervention and conduct a review of policies and regulations with recommendations for revisions that incorporate sustainability aspects in urban land-use planning seeking to improve low carbon urban development and climate resilience (i.e. the Municipality of Breza sanitation of illegal waste landfills and construction of bring banks, and the Feasibility study for the development of heating mini-grid for landfill of KJKP Rad).

No adverse social impacts were anticipated, since the project focused on retrofitting existing public buildings within their existing footprint and there would be no land acquisition or resettlement of community members. If any environmental or social grievances did arise, there was a mechanism in place for reporting them to the GEF through the annual PIR.

3.2 Project Implementation

3.2.1 Adaptive management

The project encountered numerous complex and extraordinary challenges throughout its implementation. The complex nature of the structure within Bosnia and Herzegovina, frequent change of executive governments on different administrative levels as well as the frequent turnover of project team staff required significant effort and adjustments when negotiating agreements, approvals and an extension for maintaining the continuity of the project. The global crises with COVID, Ukraine and inflation also had a significant impact on the first years of the project.

UNDP was highly adaptive in its management of the project. In response to the results of the Midterm Review (MTR) and changing context as a result of the global crises, the project staff was revised and expanded to better meet the needs of the project. Although there was significant turnover of the project manager, with 5 project managers in total, the team has accomplished an impressive amount in the second half of the project period. The following are the main challenges and how they were addressed.

- Project team: revising and expanding the project team in accordance with MTR results, created the right staff to fit the needs of the project and significantly enhanced implementation.
- COVID restrictions: training curriculum was redesigned for an online platform and trainings were conducted virtually.
- Inflation: due to adjustments in budgets after taking into account inflation, continuous revisions to government applications, which took approximately one month for approval each time, required additional staff time and slowed progress on implementation.

Stakeholders agreed across all groups that UNDP provided a significant added value to these efforts, beyond the relatively small amount of financing it contributed. First and foremost, stakeholders highly valued UNDP's ability to provide the capacity and expertise to creatively resolve complex and time-

consuming government processes and procedures. There was also a high value placed on UNDP's ability to maintain quality and motivate regular inputting of data to EMIS and MRV.

Stakeholders also valued UNDP's ability to negotiate impasses or details that stakeholders were not able to resolve on their own to complete an intervention. UNDP's approach felt inclusive and collaborative with stakeholders, which one government official noted was a welcome difference from some of the other donors.

3.2.2 Actual stakeholder participation and partnership arrangements

Stakeholders were engaged through participation in the Project Board (representatives of the Ministries and the Environment Funds), consultations and active involvement in implementation of project activities (e.g. Municipalities/Cities signed letter for co-financing, Municipalities and Cities participated in preparation of SECAPs, Ministries and Environment Funds took active roles in drafting ToRs for involvement of experts for preparation relevant legislation and implementing activities).

The most significant collaboration was through the key governmental counterparts actively involved on the Project Board; namely the Ministry of Foreign Trade and Economic Relations of BiH, RS Ministry of Spatial Planning, Civil Engineering and Ecology, RS Ministry of Finance, RS Ministry of Energy and Mining, Ministry of Environment and Tourism of FBiH, Federal Ministry of Energy, Mining and Industry, Federal Ministry of Finance, Environmental Fund of FBiH and Environmental and Energy Efficiency Fund of RS. This close collaboration from the project's design through implementation, strengthened governmental commitment to ensure the project's success and governmental knowledge to facilitate the continuation of the project's efforts. For example, cooperation with state and entity level institutions responsible for energy efficiency has been further formalized through the establishment of two separate ESCO Working groups for FBiH and RS. The main topics for discussion and joint decision-making within the Project Board were related to the establishment of financial mechanisms, the development of an IT system for waste management and the improvement/development of the legislative framework for the LCUD concept. As witnessed by the progress in its components, consultations were time consuming with successful results, thus speeding up the realization of key activities.

According to information gathered from interviews with stakeholders, the contextual situation in Bosnia and Herzegovina is broader with a large number of stakeholders from the local, cantonal, entity and State levels who would benefit from expanding similar engagement in energy and waste management.

Given the strong desire by municipalities to improve energy and waste management in their areas, they were critical stakeholders who were eager and active in ensuring the project was successful for their communities. They demonstrated their commitment to participating in project activities with signed commitment letters, significant co-financing of urban low-carbon projects, and participation in preparation of SECAPs, Waste Management Plans and the implementation of LCUD project activities, such as local ESCO interventions.

Similarly, cantonal and local governments were directly involved with the planning of a large number of ESCO projects in the next period. Specifically, regarding stakeholder engagement, the project has established the following partnerships[10] with:

- 2 Environmental Funds on implementation of ESCO and waste management.
- The Ministry of Foreign Trade and Economic Relations of BiH and 7 entity level institutions (Ministry of Finance of FBiH, Entity-level associations of accountants, Ministries of energy, spatial planning and environmental protection in both entities) for developing ESCO strategic and regulatory framework.
- 2 Chambers of Commerce of FBiH and RS for creating ESCO Associations on entity level to advocate the energy service market development and facilitate ESCO project implementation.
- 3 public utility companies to become public ESCO companies - Public Enterprise Electric Utility of BiH-(Elektroprivreda Bosne i Hercegovine d.d. Sarajevo), Mixed Holding Power Utility of EP RS (Elektroprivreda Republike Srpske a.d. Trebinje) and Public Company Electric Utility-EP HZ HB (Elektroprivreda Hrvatske zajednice Herceg Bosne d.d. Mostar).
- 9 municipalities (Bratunac, Cazin, Gradiška, Srbac, Stanari, Travnik, Busovača, Vitez, Novi Travnik), 6 public institutions and enterprises (Student Centre in Sarajevo, Hospital in Foča, communal enterprises in Cazin, Sarajevo, Gradiška and Zvornik) and 4 cantonal institutions (Ministry of Education in Central-Bosnia Canton, Ministry of internal affairs in Central-Bosnia Canton, Prime Minister's cabinet in Zenica-Doboj Canton and Ministry of Education of Zenica-Doboj Canton) for implementation of LCUD projects through ESCO model.
- 5 cities and municipalities (Cazin, Mostar, Gradiška, Prijedor and Ilidža) for development and support to prosumers on local level.
- 9 municipalities (Cazin, Livno, Novi Travnik, Breza, Trebinje, Bijeljina, Doboj, Zvornik and Zenica) for implementation of a green logistic scheme for waste management for municipal waste recycling.

In accordance with the information gathered from interviews with stakeholders, the situation in BiH is complex with a large number of stakeholders and covering two large fields of engagement: energy and waste. Municipalities and cities, as important stakeholders, were committed to participate in the project activities in particular with signature of a letter for co-financing of low-carbon urban projects and participation in preparation of SECAPs (38 SECAPs adopted). There was a market survey and involvement of SMEs, professionals and academia from the field of energy into project activities (ESCO- mechanism).

3.2.3 Project finance and co-finance

The project has partially achieved expectations for co-financing. In BiH there are relatively low levels of activities related to low-carbon urban development and the ESCO market did not exist prior to this project, meaning every result in building this ESCO market was a significant and innovative

[10] Project Implementation Report (PIR), 2023.

contribution. So, it is expected that all of the ongoing investments, at least the ESCO project for the Central Bosnia Canton out of the planned investments through ESCO public procurement and other types of planned LCUD investments will be realized by the end of the project. This will bring the project facilitated LCUD investments to 42,642,715 USD which is above the end of project target[11].

Given that resources for municipalities and the Environmental Funds were based on annual budget decisions, which can be subject to major changes as a result of political changes and/or increased budget constraints, UNDP obtained commitments for co-financing from the Environmental Funds through signed letters of agreement with at least USD 40 million to ensure a longer-term commitment to the project's infrastructure interventions. Support was provided to the Environmental Funds to diversify and strengthen their funding base.

The impact of the COVID-19 pandemic was another factor that added to the financial uncertainty for funds from both municipalities and entities to invest in the LCUD projects. For instance, the Government of FBiH has established a so-called COVID-19 fund by which almost 50% of annual funds from the Environmental Fund were reallocated to this new fund. The project's gradual approach to implementing an intervention in stages helped to mitigate the impact of this shift in resources. As an example, to achieve the 30% of expected funding provided by selected municipalities in the RS for the development of the waste management plans with green logistic schemes, the project first gathered the necessary background information from feasibility studies or technical papers that helped to develop a plan for each site. By doing so, the project created time for municipalities to plan according to their priorities and current circumstances.

The following tables summarize the available and utilized financial resources:

Table 7: Co-Financing Table

Co-financing Type/Source	UNDP (USD $)		Government including municipalities (USD $)		Partner Agency (USD $)		Total (USD $)
	Planned	Actual	Planned	Actual	Planned	Actual	
Total	4,500,000	4,500,000	37,550,627	24,502,751	2,370,000	2,055,499	31,058,250

[11] Project Implementation Report (PIR), 2023.

Table 8: Project Financial Statement (2017-2023)[12]

Source of Co-financing	Name of Co-financer	Type of Co-financing	Investment Mobilized	Amount (in USD)
Donor Agency	GEF	Grant Public Investment	Investment Mobilized	2,055,499
Municipalities	Local Governments	Public Investment	Investment Mobilized	484,842
Government	Fund for Environmental Protection and Energy Efficiency of the Republic of Srpska	Grant Public Investment	Investment Mobilized	4,363,471
Government	Fund for Environmental Protection of Federation of Bosnia and Herzegovina	Grant Public Investment	Investment Mobilized	19,597,164
Government	Ministry of Spatial Planning, Civil Engineering and Ecology of the Republic of Srpska	Grant Public Investment	Investment Mobilized	57,274
UNDP	UNDP	Grant In-Kind Public-investment	Investment Mobilized	4,500,000
Total Co-financing				29,002,751
Total				31,058,250

The Environmental Fund of the RS financially participated in these activities so that the financial burden would be shared among the Environmental Fund and the selected municipalities. Most of the financial resources were utilized by UNDP through direct disbursements, while Letters of Agreement were signed with entities and local government institutions for implementation of a number of output-related activities.

As discussed, the project had some major challenges with co-financing due to a variety of reasons, including COVID-19, reallocation of the Funds, among others. However, it is expected that all of the ongoing investments will be achieved, or at the least the ESCO project for Central Bosnia Canton out of the planned investments through ESCO public procurement and other types of planned LCUD

[12] Data provided by the UNDP Finance Unit. (December 1, 2017 - December 31, 2023)

investments presented above. This will bring the project facilitated LCUD investments[13] to 42,642,715 USD, which is above the end of project target.

3.2.4 Monitoring & Evaluation: design at entry, implementation, and overall assessment of M&E

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

Project-level monitoring and evaluation have been undertaken in compliance with UNDP and GEF M&E requirements. In addition to these mandatory UNDP and GEF M&E requirements, other M&E activities deemed necessary to support project-level adaptive management were agreed during the Project Inception Workshop and detailed in the Inception Report. This included the exact role of project target groups and other stakeholders in project M&E activities.

M&E Oversight and monitoring responsibilities

Project Manager: The Project Manager was responsible for day-to-day project management and regular monitoring of project results and risks, including social and environmental risks. The Project Manager ensured that all project staff maintain a high level of transparency, responsibility and accountability in M&E and reporting of project results. The Project Manager developed annual work plans (last one for 2024) based on the multi-year work plan.

Project Board: The Project Board applied corrective action as needed to ensure the project achieves the desired results. It was planned in the final Project's year, the Project Board will hold an end-of-project review to capture lessons learned and discuss opportunities for scaling up and to highlight project results and lessons learned with relevant audiences.

Project Implementing Partner: The Implementing Partner was responsible for providing any and all required information and data necessary for timely, comprehensive and evidence-based project reporting, including results and financial data, as necessary and appropriate.

UNDP Country Office: The UNDP Country Office supported the Project Manager as needed, including through annual supervision missions. The UNDP Country Office initiated and organized key GEF M&E activities including the annual GEF PIRs, the independent mid-term review (2020) and the independent terminal evaluation (2024). The UNDP Country Office also ensured that the standard UNDP and GEF M&E requirements are fulfilled to the highest quality.

UNDP-GEF Unit: Additional M&E and implementation quality assurance and troubleshooting support was provided by the UNDP-GEF Regional Technical Advisor and the UNDP-GEF Directorate as needed.

[13] Project Implementation Report, 2023.

- During the **Mid Term Review** (MTR) period, the project started on December 1st, 2017 and was in its third year of implementation. In line with the UNDP-GEF Guidance on MTRs, the MTR process was initiated before the submission of the second Project Implementation Report (PIR). The MTR process followed the guidance outlined in the document *Guidance for Conducting Midterm Reviews of UNDP-Supported, GEF-Financed Projects.*
- An independent **Terminal Evaluation** took place upon completion of all major project outputs and activities (and of 2023 and beginning of 2024). It was important that the terminal evaluation process started at least three months before operational closure of the project allowing the evaluation mission to proceed while the project team is still in place, yet ensuring the project is close enough to completion for the evaluation team to reach conclusions on key aspects such as project sustainability.

Final Report: The project's terminal PIR along with the TE report and corresponding management response will serve as the final project report package. The final project report package shall be discussed with the Project Board during an end-of-project review meeting to discuss lessons learned and opportunities for scaling up.

Table 9: M&E Rating

Monitoring & Evaluation	Rating[14]	Remarks
M&E design at entry	Satisfactory	The project document has outlined suitable M&E measures
M&E Implementation Plan	Satisfactory	Project employed suitable mechanisms to implement M&E Plan
Overall Quality of M&E	Satisfactory	Project Board, Project team, UNDP Country Office /M&E specialists, UNDP-GEF Unit

3.2.5 UNDP implementation/oversight and Implementing Partner execution, overall project implementation/execution, coordination, and operational issues

The project was implemented following UNDP's Direct Implementation Modality (DIM), according to the Standard Basic Assistance Agreement between UNDP and the Government of BiH (SBAA of 7 December 1995), and the Country Program Action Plan (CPAP). The Implementing Partner for this project is UNDP. The Implementing Partner is responsible and accountable for managing this project, including the monitoring and evaluation of project interventions, achieving project outcomes, and for the effective use of UNDP resources. The project organization structure is as follows:

[14] Outcomes, Effectiveness, Efficiency, M&E, Implementation/Oversight & Execution, Relevance are rated on a 6-point scale: 6=Highly Satisfactory (HS), 5=Satisfactory (S), 4=Moderately Satisfactory (MS), 3=Moderately Unsatisfactory (MU), 2=Unsatisfactory (U), 1=Highly Unsatisfactory (HU). Sustainability is rated on a 4-point scale: 4=Likely (L), 3=Moderately Likely (ML), 2=Moderately Unlikely (MU), 1=Unlikely (U)

The Project Board was responsible[15] for making by consensus, management decisions when guidance is required by the Project Manager, including recommendation for UNDP/Implementing Partner approval of project plans and revisions. In order to ensure UNDP's ultimate accountability, Project Board decisions should have been made in accordance with standards that shall ensure management for development results, best value for money, fairness, integrity, transparency and effective international competition. In case a consensus cannot be reached within the Board, final decision shall rest with the UNDP Program Manager. The Project Board was comprised of the following institutions: Ministry of Foreign Trade and Economic Relations of BiH; Ministry of Spatial Planning, Civil Engineering, and Ecology of RS; Ministry of Environment and Tourism of FBiH; the Environmental Fund of the FBiH; the Environmental Protection and Energy Efficiency Fund of RS.

The Project Manager managed the project on a day-to-day basis on behalf of the Implementing Partner within the constraints laid down by the Board. The Project Manager function will end when the final project terminal evaluation report, and other documentation required by the GEF and UNDP, has been completed and submitted to UNDP (including operational closure of the project). There were issues with project management in the first years of the project, one of the most impactful being the constant turnover with a total of five (5) project managers over the course of the project period.

The Project Assurance was provided by the UNDP Country Office, the Energy and Environment Sector Leader particularly offering support and guidance. Additional quality assurance was provided by the UNDP Regional Technical Advisor as needed, with consensus by evaluation participants that this was sufficiently conducted.

The Governance for project target groups included the ministries (Ministry of Spatial Planning, Civil Engineering, and Ecology of RS; Ministry of Environment and Tourism of FBiH and Ministry of Foreign Trade and Economic Relations of BiH) and EFs in LCUD, as target groups had a direct role in governing and project management through their involvement in the Project Board.

Project Implementation Partners and Stakeholders

- Municipal authorities were important stakeholders in the process of leveraging investments for LCUD, thus making them an important target group of the Project. Therefore, authorities of selected municipalities were not involved in the Project Board, though they have valuable local knowledge and experience related to the prescribed procedures for implementing EE measures and waste management in BiH.
- SMEs, as delivery agents in the EE market, contributed to the project's success through their technical knowledge and specific local experience and interests in the ESCO scheme..
- All target groups had a valuable role in supporting the BiH-wide advocacy campaign on low-carbon cities, through their capacity to endorse and disseminate information.

The Project Unit has been based at the UN House in Sarajevo (BiH). Implementation of project activities was fully supported by the Energy & Environment Sector Leader and Energy Environment

[15] Project Board meetings minutes (12); ProDoc.

Program Associate, as well as other program staff. The UNDP Country Office provided support services in terms of operational segments for the successful Project implementation. The GEF logo and UNDP logos appeared on all promotional materials, other written materials, and project hardware. Project activities related to cooperation, training and information sharing aimed to use already established, legitimate participatory bodies, as well as existing training and cooperation platforms.

Table 10: Implementing and Executing Agency Ratings

Implementing Agency (IA) Implementation & Executing Agency (EA) Execution Rating	Rating[16]	Remarks
Quality of UNDP Implementation/ Oversight	Satisfactory	UNDP's Environment and Climate Change Unit was involved in all stages of the project design, implementation and monitoring and evaluation.
Quality of Implementing Partner Execution	Satisfactory	The project was directly implemented, with UNDP as the implementing agency, using UNDP standard financial management, recruitment and procurement systems and procedures. Although there were management issues in the first half of the project period, UNDP addressed the issue with the necessary changes to ensure quality implementation.
Overall quality of Implementation/ Execution	Satisfactory	UNDP provided effectively required technical, implementation, financial management, recruitment and procurement support during project implementation.

3.2.6 Risk Management

As mentioned in Section 3.1.2, the project document identified a number of risks articulated in its Risk Log[17]. The following is a summary assessment of those risks and their effects on the project implementation and performance.

Consensus between BiH entities and state

The complex structure of BiH and the challenges across the state were accurately anticipated as a concern regarding the harmonization of policies and financial support mechanisms for LCUD. The project was able to overcome a significant amount of these challenges through the development of

[16] Outcomes, Effectiveness, Efficiency, M&E, Implementation/Oversight & Execution, Relevance are rated on a 6-point scale: 6=Highly Satisfactory (HS), 5=Satisfactory (S), 4=Moderately Satisfactory (MS), 3=Moderately Unsatisfactory (MU), 2=Unsatisfactory (U), 1=Highly Unsatisfactory (HU). Sustainability is rated on a 4-point scale: 4=Likely (L), 3=Moderately Likely (ML), 2=Moderately Unlikely (MU), 1=Unlikely (U)

[17] Project Document, Annex I.

bylaws, procedures and parallel project activities within each entity, as well as leveraging existing agreements for sharing data. However, state level law remained only partially addressed.

Limited government capacity

The project team offered strong expertise to enhance governmental capacities and flexible management to address the complexities as they arose. In the end, the success of the project demonstrated that an enabling environment for private investment in low carbon public facilities was accomplished.

Unpredictability of municipal and EF annual budgets

The municipalities' and EFs' budgets are based on annual budgets, which are decided outside of the scope of the project. Therefore, planning was challenging and uncertain from year to year. However, the letters of commitment and establishment of the rotating funds with the EFs offered a more stable financial context for the project.

Technology failures

The systems were well designed and stakeholders did not mention any concerns about their functioning. Therefore, this was not an issue during the project implementation.

Climate change will decrease need for LCUD project

The climate in BiH continues to require either heating or cooling, depending on the season. And waste management will continue no matter the temperatures. However, this strengthens the argument for installing systems that can address both heating and cooling.

Social and Environmental Standards

The project was designed in accordance with UNDP's environmental and social policies, which was intended to minimize environmental risks. Having completed the UNDP social and environmental screening procedure (SESP), complying with UNDP Social and Environmental Standards (SES).

In the project design phase, it was determined that the Environmental Impact Assessment (EIA) was not required for the type and scale of investments for the LCUD project. In addition, the project document discussed that interventions and activities related to this project did not require the issuance of environmental permits. The work around retrofitting a building is reportedly considered maintenance, eliminating the need for obtaining permits.

3.3 Project Results and Impacts

3.3.1 Progress towards objective and expected outcomes

The following table provides a summary[18] of achievements towards the project objective and outcomes against specified indicators and targets as outlined in the project's Results Framework. The following sections on Relevance, Efficiency, Effectiveness, Sustainability, Gender Equality and Impact will provide a detailed analysis.

[18] Project Implementation Reports (PIRs)

Table 11: Results Framework Summary[19]

	Objective and Outcome Indicators	Baseline	End of Project Target	Target Achievements	Evaluator Comments
Project Objective: to leverage investment in low-carbon urban development (LCUD) in BiH thereby promoting safer, cleaner, and healthier cities and reducing GHG emissions	Number of new development partnerships with funding for improved energy efficiency and/or sustainable energy solutions targeting underserved communities/groups and women.	N/a	2 (with Environmental Funds of the entities); 4 selected municipalities for implementation of LCUD investment projects; 4 selected municipalities for implementation of green logistic scheme for waste management for municipal waste recycling	**Target Met** (well surpassed) **Outstanding: Partnerships targeting underserved communities/ groups and women**	The project has surpassed the end of project target level, with following partnerships established: - 2 with Environmental Funds on implementation of ESCO and waste management, - Ministry of Foreign Trade and Economic Relations of BiH (MoFTER) and 7 entity level institutions (Ministry of Finance of FBiH, Entity-level associations of accountants, Ministries of energy, spatial planning and environmental protection in both entities) for developing ESCO strategic and regulatory framework, - 2 with Chambers of Commerce of FBiH and RS for creating ESCO Associations on entity level, - Partnership with 3 public utility companies (EP BiH, ERS and EP HZHB) to become public ESCO companies, - 9 municipalities (Bratunac, Cazin, Gradiška, Srbac, Stanari, Travnik, Busovača, Vitez, Novi Travnik), 6 public institutions and enterprises (Student Centre in Sarajevo, Hospital in Foča, communal enterprises in Cazin, Sarajevo, Gradiška and Zvornik) and 4 cantonal institutions (Ministry of Education in Central-Bosnia Canton, Ministry of internal affairs in Central-Bosnia Canton, Prime Minister´s cabinet in Zenica-Doboj Canton and Ministry of Education of Zenica-Doboj Canton) for

[19] For more details, see Annex N.

					implementation of LCUD projects through ESCO model - 5 cities/municipalities (Cazin, Mostar, Gradiška, Prijedor and Ilidža) for development and support to prosumers on local level, - 9 municipalities (Cazin, Livno, Novi Travnik, Breza, Trebinje, Bijeljina, Doboj, Zvornik) for implementation of green logistic schemes for municipal waste management. The project has established the following partnerships: 4 partnerships with entity level institutions (Ministries of energy, spatial planning and environmental protection in both entities) for updating draft and adoption of Rulebooks for contracting and implementation of energy services in FBiH and RS, 1 public institution (Student Centre in Sarajevo) and 2 cantonal institutions (Prime Minister´s cabinet in Zenica-Doboj Canton and Ministry of Education of Zenica-Doboj Canton) for implementation of LCUD projects through ESCO model.
	Amount of project-facilitated investment in LCUD	0	40 mil USD	**Target Partially Met** **Outstanding: 13,754,410 USD**	Total amount of project facilitated investments until now amounts to 26,245,590 USD (*26,801,144.20USD last financial results table, with total co-financing 24,745,645.34 USD), out of which 2,694,984 USD were invested during the last reporting period.

	tCO2eq direct emissions reductions (which are attributable to the project-facilitated investments in LCUD made during the project's supervised implementation period, totaled over the respective lifetime of the investments	0	400,000 tCO2eq *Revised to 116,336 tCO2eq.	**Target Met**	The revised target for tCO2eq direct emissions reductions (which are attributable to the project-facilitated investments in LCUD made during the project's supervised implementation period, totaled over the respective lifetime of the investments) is 116,336 tCO2eq. Current estimation is that the implementation of the URBANLED investment and infrastructure activities will end up with minimum 118,763.81 tCO2eq to 184,583.35 tCO2eq emissions reduced over their lifetime, which in both cases is above the revised target.
	Number of project beneficiaries, including % of women	NA	15,000 (including 60% women)	**Target:** **- Met for all** (well surpassed) **- Partially met for women** **Outstanding: increase to 60% women**	The project is on track to significantly exceed the targets as the number of total beneficiaries' accounts for 164,677 beneficiaries with 50,8% women.
Component 1: Innovative Financing Mechanisms for	Status and level of capitalization of the financial mechanism (ESCO Funding window)	ESCO Funding window does not exist	ESCO Funds established and capitalized with at least 24 mln USD	**Target Partially Met** **Outstanding: 22 million USD**	The project has already facilitated 2,010,000 USD ESCO investments and is planning to facilitate additional 29,743,193 USD ESCO investments, coupling these investments with established revolving fund within Ministry of spatial planning of FBiH, planned revolving funds within Entity's environmental funds and initiated cooperation with

Implementation of Low-Carbon Urban Development Concept (LCUD)					Intesa Sanpaolo bank on developing green credit line that includes ESCO projects.
	Number of staff at EFs and other stakeholders trained on the operation of ESCO Fund and other innovative financing mechanisms (including number of women)	0	40 (20 women)	**Target Met** (well surpassed for all and for women)	The project has already reached its end target with 1,426 representatives of public sector stakeholders and 423 representatives of private sector stakeholders trained and educated, with over 50% of women participants.
	Status of MRV system	No MRV system in place	MRV system is both operational in both entities	**Target Met**	In previous period, the ESCO module in EMIS and the Handbook for ESCO module, the Monitoring, Reporting and Verification (MRV) protocols for different ESCO projects (public buildings, heating systems, public lighting systems and waste transportation) have been developed, as well as the draft Roadmap for ESCO market development in BiH which has the instructions for MRV system deployment and the draft Rulebooks for contracting and implementation of energy services in FBiH and RS which state the obligation of MRV and formulate the MRV process to be undertaken by Entity's Environmental Funds and Ministries of energy in FBiH and RS. The MRV protocols for different ESCO projects have been tested and the ESCO projects Guidebook with concrete instructions for MRV of

					individual ESCO projects by end-user, the ordering party and the ESCO company, has been developed.
Component 2: Low-carbon public buildings and utilities	Number of public facilities and utilities covered by EMIS on municipal level	2,300	3,800	**Target Met**	The number of facilites and utilities covered by EMIS at the municipal level totaled 3,936. In cooperation with the GCF Low-Carbon project, it entered into EMIS 388 public facilities and utilities on municipal level. In total since project initiation, data on 1,639 public facilities and utilities formally registered as owned or used by municipalities have been covered by EMIS. This means that the project has achieved the revised end of project target (1,500 buildings). When it comes to the total level of entries at the municipal level it sums up to 3,936 public facilities in EMIS.
	Number of people trained in energy management and LCUD project design and implementation (and % women)	0	1,500 (30%)	**Target Met** (well surpassed)	The project has reached 3703, surpassing the end-of-project target, as it has directly provided training to over 2,349 representatives of the public and private sector (with an average participation of women around 40%). In the last reporting period, the project has provided training to 1,354 representatives of the public and private sector (39,8% women).
	Number of infrastructural LCUD projects implemented	0	45	**Target Met** (well surpassed)	The project has exceeded the end target as the implementation of the LCUD projects advances. Until now, the project has implemented 65 LCUD infrastructural projects.

Component 3: Low-carbon waste management and (transport)	Status of MRV for waste sector	No MRV for waste sector	MRV system established (data collection, assessment, archive and evaluation), institutionalized and legally recognized responsibility for MRV in place	**Target Met**	The project has succeeded in achieving the end of project target, by having a digital waste management system functional in both entities of BiH and recognized through legal framework. The Waste Management System (WMS) of FBiH (https://www.otpadfbih.ba/) has been finalized and in use since the beginning of 2021. While the IT WMS in RS was finalized in May 2023 and transfer of ownership towards the Environmental Fund of RS was in July 2023. Both systems are designed to enable the usage and generation of reliable waste-related data for drafting of strategic and action plans, monitoring their implementation and results of activities on the field in terms of reduction of GHG emission and generated waste, as well as reporting to the European Union on the generation and waste flows in BiH. In the next period, the project will work on advocating data entry into the system and promotion of registration of responsible entities into Waste Management Systems of FBiH and RS.
	Reduction in fuel consumption from the municipal waste transportation (% to baseline) in pilot municipalities	N/a	15% reduction in all 6 pilot municipalities	**Target Met**	The implemented green logistic scheme for waste management pilot projects have resulted in 22,96% reduction in fuel consumption in 6 municipalities.

Component 4: National and sectoral policies, institutional coordination and awareness raising on low carbon urban development	Status of relevant LCUD enabling rules and regulations	N/a	Harmonized LCUD-enabling rules and regulations developed and enacted across BiH	**Target Met**	The project has developed 65 local, entity and state-level regulations, legal analysis and strategic documents that are supporting LCUD development. The project has advocated the adoption of legal and strategic documents by relevant governmental levels during the remaining project period. The project facilitated adoption of 46 regulations and strategic documents, and are working on adoption of following documents in the remaining period of project implementation: - SECAPs for remaining 4 municipalities (38 adopted) - Circular Economy Roadmap for BiH - Roadmap for ESCO market development in BiH - Rulebook for contracting of energy services (RS and FBiH)
	Number of people reached out to by national LCUD awareness raising campaign (refer to Annex B of the Project Document for details on how this will be measured)	0	750,000 (at least 50% women)	**Target Met** (well surpassed)	Until now, the project has cumulatively reached through: Online promotion: 1,062,352 people reached (146,000 in 2022, 310,090 in 2021, 79,221 In 2021, 477,500 in 2020, 39,541 in 2019) out of which 54% were women. TV media: 1 million citizens. Face-to-face modality: more than 1,200 representatives of the public, commercial and residential sectors.

3.3.2 Relevance

Relevance: How does the project relate to the main objectives of the GEF Focal area, and to the environment and development priorities at the local, regional and national level?

The project was directly aligned to support BiH achieve its global priorities and commitments. The LCUD project contributed to BiH's ability to deliver on their Strategy for Climate Change and Adaptation and Low Emission Development and their National Emission Reduction Plan, as well as their commitment to the United Nations Framework Convention on Climate Change and the Paris Agreement. The Nationally Determined Contribution (NDC)[20] BiH developed in relation to the Paris Agreement specifically articulated the need for international financial support to enable the development of a sustainable system to reduce GHG emissions from public buildings. In addition, the project supported the country's achievement of its targets for the Agenda 2030 and the SDGs, primarily SDG 7: Affordable and clean energy; SDG 11: Sustainable cities and communities; SDG 13: Climate action. To accomplish this, the project is aligned with the SDG Framework in BiH, particularly its "Smart Growth" development pathway.

The project was fully aligned with and focused on with the Global Environmental Benefits through building capacities for mainstreaming and future implementation of the BiH country's first climate change National Adaptation Plan (NAP),[21] which in the longer term is expected to significantly contribute to the reduction of CO2.

The National Energy Efficiency Action Plan (NEAP)[22], which also includes NEAPs for the entities, stipulated an energy savings target of 9% by 2018 with the expectation that the highest savings would come from public facilities and utilities, and the public sector would lead by example that would drive low-carbon urban transformation. Some local governments prioritized the transition to LCUD and signed the EU Covenant of Mayors initiative and adopted their own Sustainable Energy Action Plans (SEAPs) with GHG emissions reduction targets.

A top priority for BiH is harmonization across their complex government administration as they aspire to gain accession into the European Union. The project leveraged existing agreements and data was shared between entities. For example, all entities had access and uploaded data to the EMIS, which provided data for all of the climate resilience projects. In addition, interventions were implemented across the state. As one Minister stated, "All projects are being implemented throughout the state and the solutions are basically the same."

From the outset, the project was intentional in engaging a wide range of government actors. The Project Board consisted of key high-level government officials who were involved with decision-making and oversight from the project's inception. One participant suggested that including the Ministry of Energy at the entity level might have facilitated implementation. Project Board members and UN staff reported

[20] https://unfccc.int/sites/default/files/NDC/2022-06/NDC%20BiH_November%202020%20FINAL%20DRAFT%2005%20Nov%20ENG%20LR.pdf
[21] https://unfccc.int/sites/default/files/resource/NAP-Bosnia-and-Herzegovina%20.pdf
[22] https://www.climatepolicydatabase.org/policies/national-energy-efficiency-action-plan-neeap

dynamic discussions, engaged members and for a productive process.

Once project implementation was fully underway in the second half of the project cycle, the PMU worked in close collaboration with local government officials and direct beneficiaries. Local officials reported the interventions were aligned with their local government development plans. As one local official said, "The project aligns with our Strategy 2021-2027 and also the previous one included something on environmental protection… One of our goals is we're aiming to improve communal waste management."

However, community support varied. In some of the sites, beneficiaries reported that these interventions filled an important need, such as municipal buildings whose heating system had been connected to city hall and was both challenging and inefficient to ensure heating to all the different buildings. Now the participating municipal buildings are more energy efficient with a retrofitted building and the heating has been separated from city hall for even more efficiency.

Communications with potential intervention sites and their communities were initially limited and improved in response to the MTR results. Even so, in some locations, beneficiaries and local officials reported that community support remained limited and at times blocked progress towards the project's goals. The idea of including local community members or representatives of municipal associations on the Project Board to improve alignment with community interests and buy-in, some said that may not be the most beneficial way to gather inputs and engagement from the communities or municipalities. One participant was concerned that community or municipality members would see their participation as a faster route to being selected for an intervention, rather than recusing themselves so that the selection process is fair and their inputs are focused on the greater good.

3.3.3 Effectiveness

Effectiveness: To what extent have the expected outcomes and objectives of the project been achieved?

The complex nature of the LCUD project required an extensive network of partnerships to ensure its success. To that end, the project surpassed its target for the number of partnerships established, laying a strong foundation for the project's implementation and supporting its sustainability. In addition to the relationships already mentioned with the Environmental Funds and other members of the Project Board, the project developed partnerships with the Chambers of Commerce from FBiH and RS to create the ESCO Associations at the entity level. They partnered with three public utility companies; two in the FBiH and one in the RS. When implementing the ESCO model at the local level, the project partnered with 9 municipalities, 7 public institutions and enterprises, and 6 cantonal institutions. They also partnered with 5 cities or municipalities to support prosumers at the local level and 9 other municipalities for the implementation of the green logistic scheme of waste management. As the project moves towards closing, they expanded their existing partnerships with entity level institutions (the Ministries of Energy, Spatial Planning and Environmental Protection in both entities) for updating the draft and adoption of Rulebooks for contracting and implementation of energy services in FBiH and RS.

3.3.3.1 Overall Goal: Leverage investment in low-carbon urban development (LCUD) in BiH thereby promoting safer, cleaner, and healthier cities and reducing GHG emissions.

According to the current estimation[23], the implementation of the LCUD investment and infrastructure activities have resulted in 116,336 tCO2eq in reduced tCO2eq over the lifetime of the investment. And it is estimated that by the close of the project, emissions will ultimately result in a minimum reduction of 118,763.81 tCO2eq to 184,583.35 tCO2eq. In addition, the project activities have exceeded their overall targets for participation by engaging a total of 164,677 beneficiaries, 50,8% of whom were women.

More specifically, the project has built partnerships critical for facilitating implementation and sustainability of efforts moving forward. The project surpassed its target level of partnerships by meaningfully engaging with Environmental Funds on implementation of ESCO and waste management, the Ministry of Foreign Trade and Economic Relations of BiH, and 7 entity level institutions for developing ESCO strategic and regulatory frameworks.

In facilitate the private sector's readiness to engage in the project, the project partnered with the Chambers of Commerce to support the creation of ESCO Associations in each entity and supported the ability for three public utility companies (2 in FBiH and 1 in RS) to become ESCO companies.

The project eased implementation and local ownership of LCUD projects through the ESCO model by developing partnerships with nine municipalities, six public institutions and enterprises, and four cantonal institutions.

3.3.3.2 Component 1: Innovative Financing Mechanism for Implementation of Low-Carbon Urban Development Concept (LCUD) addresses the identified financial barriers by strengthening the EFs' capacity to finance infrastructural LCUD projects.

The project set out to achieve two outcomes for this component: 1) to strengthen public capacities to program and monitor environmental finance for LCUD; and 2) to increase and diversify sources and modalities of public investment in LCUD. The project has strengthened capacities by training and educating a total of 1,849 participants; 1,426 representatives from the public sector and 423 representatives from the private sector, with over 50% of women participants, reaching its targets. The project has also demonstrated a commitment to utilizing innovative financial mechanisms for implementation and scaling of the project's efforts. The project mobilized 2,010,000 USD for ESCO investments.

The ESCO model was a strong example of how public investment was diversified through the strong partnership between actors from the private and public sectors. Building the capacity of SMEs was a critical aspect of ensuring the ESCO model could be properly employed and continued after the close of the LCUD project. For this indicator, the project achieved more than double its target by training 3,703 participants[24] in energy management and LCUD project design and implementation. In the previous

[23] Regular Project Monitoring. In relation with the report available at: https://fmpu.gov.ba/wp-content/uploads/2019/12/Zbirni-Tehnicki-Monitoring-Izvjestaj-BEEP-FBIH-Nov-2019.pdf

[24] Project Implementation Report, 2023.

reporting period, the project provided training to over 2,349 representatives of the public and private sector. And in the last reporting period, the project provided training to 1,354 representatives of the public and private sector. In addition, according to reporting on the trainings[25], "Participants have shown interest in the ESCO business model. This is evident from the questions and discussions that took place during the seminar. After the seminar, most of the participants understood the ESCO business model. In the questionnaires, participants stated that it is important to hold such events in order to regularly inform all participants, so that the whole concept about the ESCO business model [should be] settled in our country."

Along with the trainings[26], ESCO-related guides and protocols were developed to support transferring knowledge to relevant stakeholders about the ESCO model and how to implement it. The varied materials completed thus far include a Handbook for the ESCO Model, individual protocols on MRV for specific types of ESCO projects. In addition, a Roadmap for ESCO market development in BiH, with a section covering instructions the MRV system deployment, and Rulebooks for contracting the implementation of energy services in FBiH and RS and also included the MRV process to be undertaken by the Environmental Funds and Ministries of energy in FBiH and RS.

The LCUD project has already met its targets for its second outcome to increase and diversify public investment, which is demonstrated in its commitment to utilization of the innovative financial mechanisms for implementation and scaling of the project's efforts. The project mobilized 2,010,000 USD for ESCO investments.

3.3.3.3 Component 2: Low-carbon public facilities and utilities addresses the municipalities' lack of capacity to prepare and implement infrastructural LCUD projects in public buildings and utilities.

The outcomes supporting this component focused on: 1) strengthening capacities of municipal managers, companies and utilities to monitor resources use, prepare and implement feasible infrastructural LCUD projects; and 2) reducing GHG emissions from pilot investment. The project worked closely with municipalities to support official procurement and implementation processes. Although some capacity was built in this area, a large capacity gap remains due to limited public investment budgets and higher social need. The project was successful in improving staff capacities for employing the EMIS system, which proved helpful in the site selection process and the broader goal of harmonization across the country.

EMIS

The LCUD project surpassed its targets for all indicators. A total of 3,936 municipal public facilities and utilities were covered by EMIS, with 388 entered into the EMIS in collaboration with UNDP's GCF Low-Carbon project in the previous reporting cycle. Since the start of the project, data on 1,639 public facilities and utilities formally registered as owned or used by municipalities have been entered into EMIS, surpassing the project's revised target of 1,500 buildings. One participant explained that the "EMIS is foundational for all of the climate resilience projects… [it informs which] projects are selected, buildings to be retrofitted." The EMIS data was intended to provide evidence for decision-making on site selection for

[25] Final Report: Development and Organization of Capacity Building Trainings on ESCO Financing Mechanism, December 2022.
[26] The online Survey results

projects, and to avoid overlap and ensure synergistic efforts, support collaboration and efficiency among managers.

ESCO Model

Here too, the project surpassed their target by implementing 65 LCUD infrastructural projects out of which 6 are ESCO projects. Completed ESCO projects were well received and beneficiaries were generally pleased with the outcome. Although the process was confusing to some as they were going through it, they were satisfied with the outcome and better understood how the ESCO model would function moving forward. One beneficiary was highly satisfied, saying that "the building has never been warmer." A few had mixed reviews. Some recognized improvements and were pleased to have buildings that were more energy efficient and, particularly with inflation dramatically affecting energy prices, steady costs. They were also positive about not being required to provide additional upfront costs for the retrofitting, equipment, and installation. Another government official mentioned a positive unintended outcome was the fact that school administrators no longer had the time-consuming responsibility of overseeing the heating system, ordering coal, or other related activities.

However, a few challenges were also reported by some beneficiaries in the online survey, in context of some specific training topics (i.e., extend ESCO model to the industry public companies, etc.), adaptation of the overall public budgeting to the ESCO models, lack of the financial resources and other. According to the interviews, in at least one site, the ESCO intervention was stopped because both municipality and canton buildings from the same location were included, and two levels of government offices could not come to an agreement about which one would oversee the ESCO project. In another example, temperature gauges were reportedly installed too high on the walls, leading to mis-readings of room temperatures and thereby the building was running at a lower temperature, or a section of a window was not fully sealed and a minor leak occurred. Another challenge was the timing of the interventions related to schools. Since there are very specific times when work can and cannot be conducted at a school, meaning work can only be done during school holidays, when process is slowed, the window to carry out the project becomes smaller and then issues may arise in the rush or there may be several months between efforts to complete the project.

The work conducted and responsibilities taken on by the ESCO company were generally seen as positive. ESCO companies were satisfied with the overall arrangement, including the financial benefits. Beneficiaries were pleased with the end result and the steady financial investments. Some felt relieved that the ESCO companies took charge of controlling the heat and maintenance. A few felt it was problematic that they could not adjust the temperatures directly. All agreed that as these challenges were addressed, they were highly satisfied with UNDP's role in resolving the issues and felt that UNDP was uniquely placed for this role.

3.3.3.4 Component 3: Low-carbon waste management and logistics (transport) addresses identified shortcomings in municipal capacities for LCUD in the waste management and logistic sector.

The outcomes for this component were, 1) reducing GHG emissions from improved waste management system as a result of waste minimization; and 2) reducing GHG emissions from improved waste management system as a result of waste collection route optimization. This component, a small part of the project's efforts and budget, was implemented with mixed results. Although the targets were met, there were some implementation challenges. In this reporting period, the project succeeded in achieving its end of project target by establishing digital waste management systems that are functional in both entities of BiH and recognized through the legal framework. The Waste Management System (WMS) of FBiH (https://www.otpadfbih.ba/) was finalized and in use since the beginning of 2021, while the IT WMS in RS was finalized in May 2023 with transfer of ownership to the Environmental Fund of RS in July 2023. Both systems were designed to enable the usage and generation of reliable waste-related data to inform the drafting of strategic and action plans, as well as demonstrate their impact on the reduction of GHG emission and generated waste, as well as reporting to the European Union on the generation and waste flows in BiH. As the project closes, efforts are planned to focus on advocating data entry into the system and promoting the registration of responsible entities into Waste Management Systems of FBiH and RS. However, several stakeholders were concerned that once the project ends, there will be a lack of oversight and motivation to continue inputting the data, particularly since there is not yet a law to regulate these activities.

The green logistic scheme for waste management pilot was implemented with a reported[27] 22,96% reduction in fuel consumption in 6 municipalities, exceeding the 15% end of project target. The communities welcomed and utilized the eco-islands that were installed, although a few stakeholders reported inconsistent accuracy when community members sorted and disposed of their waste for recycling. One stakeholder stated that "by installing these [eco] islands, it sent a message that citizens should use them." However, communal and individual habits can require significant time and effort. To that end, in a couple of sites, it was reported that citizens were significantly opposed to some aspects of the program. For example, in one site, it was reported that although there was an independent study conducted with clear recommendations for how to improve waste removal routing, the new process was not considered feasible according to the timing and too big a change to community habits, and therefore it was never implemented.

[27] It was reported by local beneficiaries, more than 30% reduction in fuel consumption through implementation of ESCO waste vehicles projects in Cazin (estimated 39,7% reduction), Gradiška (estimated 39,6%), Zvornik (estimated 54,5%) and Sarajevo (estimated 55,2%). The project has developed ESCO tender documentation and is now facilitating potential ESCO suppliers. In Zvornik, the ESCO waste vehicles process was canceled.

3.3.3.5 Component 4: National and sector policies, institutional coordination and awareness raising on LCUD addresses gaps in the enabling environment for LCUD at state and entity levels by promoting the adoption and supporting enforcement of essential policies and regulations, institutional coordination (vertical and horizontal) among relevant public authorities and providing targeted capacity building and training support to relevant authorities.

This final component was designed to achieve the outcomes: 1) LCUD-related policies adopted and institutional coordination strengthened; and 2) Increased awareness of urban dwellers regarding LCUDs. The LCUD-related policies and other official regulations were well-achieved and foundational for the sustainability of the project. Prior to the LCUD project, previously existing laws and regulations were cumbersome and, at times, obstructive for project activities. The new bylaws, regulations, and legal analyses, and strategic documents developed by the project provide a smoother path for continuing project-related efforts. Although awareness was increased of urban dwellers, some community members continued to resist aspects of the waste management efforts.

Laws, Regulations, and Harmonization

There was strong consensus that one of UNDP's greatest value-add for this project was providing the specific expertise and person-power to support the government's activities in the LCUD project. As one government official said, "When we need specific expertise [or prepare something for the Council of Ministers], we can always call on the UNDP for that."

The project developed 65 bylaws, regulations, legal analyses, and strategic documents at the local, entity and state-level that supported the LCUD. There was consensus among stakeholders that these new official government documents enabled the project's activities to move forward and would have likely not have achieved as much as it did without them. However, having a clear law in place specifically regarding the ESCO model would limit continued success. One government official emphasized that without this new law, "the procurement process will continue to be an issue… and it's also challenging because the work can't be officially regulated [without the law]."

In addition, the project advocated for the adoption of legal and strategic documents by the relevant government levels during the remaining project period and contributed to the adoption of 46 of these regulations and strategic documents.

Most stakeholders felt that harmonization of project activities was sufficient, with data shared across entities and opportunities for interventions piloted in one entity to then be implemented in the other. However, there was one participant who expressed frustration that efforts were not more harmonized, such as piloting interventions in parallel within both entities.

For the remainder of this project period, the project management unit will promote the adoption of the following documents, which are intended to provide clear frameworks and pathways for more effective and efficient implementation of continued efforts established during the project.

- SECAPs for remaining 4 municipalities (38 adopted)

- Circular Economy Roadmap for BiH
- Roadmap for ESCO market development in BiH
- Rulebook for contracting of energy services (RS and FBiH)

Citizen Awareness Raising

A concerted effort was made to raise citizen awareness in response to MTR recommendations. With a communications expert added to the team, the project more actively pursued citizen awareness raising. Communication with external stakeholders, particularly towards municipalities, was strengthened with the intention of providing them with a full understanding of the purpose of the project and its various activities, including prepared legislation drafts and policy papers. This entailed a dedicated communications and awareness-raising effort, focused on SECAPs and ESCO mechanisms.

Through a range of activities, the project was able to cumulatively reach:

- Online promotion: 1,062,352 citizens (146,000 in 2022, 310,090 in 2021, 79,221 In 2021, 477,500 in 2020, and 39,541 in 2019).
- TV media: 1 million citizens
- Face-to-face modality: more than 1,200 representatives of the public, commercial and residential sectors

3.3.4 Efficiency

Efficiency: Was the project implemented efficiently, in line with international and national norms and standards?

Considering the difficulties and delays experienced in the project, it is notable that the Project Board meetings were held 12 times with the most recent one in December 2023. It is not clear whether there was a semiannual or quarterly reporting mechanism in place by the project team to the Steering Project Committee. Until the MTR period (2020), the project showed limited adaptive management, in particular in addressing the bigger issues facing the project.

During MTR activities, COVID restrictions and lockdowns also severely hampered and delayed the project in face-to-face activities like the mid-term reporting, consultations, training and events during 2020-2021. After the initial impact of COVID restrictions, the project adjusted itself to the new reality of working remotely and was able to advance their efforts by conducting online activities. However, local-level engagements suffered most due to limited access to technology and communication, and slow adaptation to new reality.

During the post MTR period the project management improved overall, with a newly structured PMU that had “the right team member in the right place”. During the last 12 months, the project steering and management was also restructured and optimized to meet the end of project targets. The project is overviewed by the CCM Programme Manager, led by the Project Manager with two project analysts and a project assistant who has a strong technical background in energy efficiency, waste management and financial mechanisms development.

Overall, during the TE, the project management structures were found suitable and efficient and guided by the Project Board.

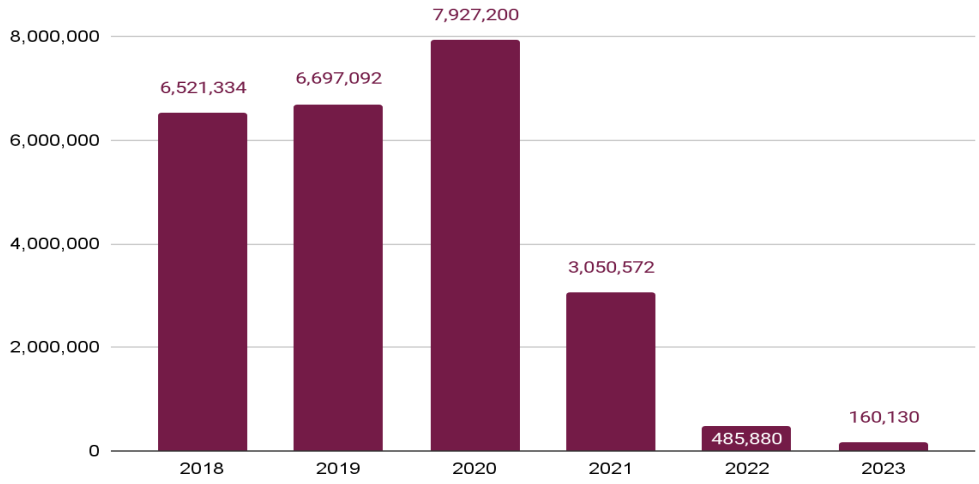
Based on the last PIR[28], the progress in implementation is rated as satisfactory, which coincides with the country office's self-rating. The cumulative delivery has moved from 58.36% to 80.19% in the last 12 months (1,900,570 USD out of 2,370,000 USD has been expended). It is noteworthy that in the last 2-year period, the project team has made impressive efforts to move from 36.57% of the delivery rate to the current 80.19%. Also in the last 2 years, the project was able to leverage investments into concrete, measurable outcomes while focusing on piloting the ESCO model and digitalizing the waste sector to decrease GHG emissions. And this was accomplished without exceeding project management costs.

The amount of project facilitated investments to date totals 26,245,590 USD, out of which 2,694,984 USD were invested during this reporting period.

Analysis of outcome expenditures as of December 2023, suggests that a major share (76%) of the total resources spent was utilized under Outcome 2, followed by Outcome 1 (21%), Outcome 3 (2%) and Outcome 4 with only 1%. Outcome 1 and Outcome 2 have consumed almost all of their allocated resources.

Analysis of project expenditures by year suggested that in 2017 there were no resources consumed, although most of the financial resources were budgeted during that period, pointing to the slow start and time consumed by setting up of project structures and implementation mechanisms. In subsequent years the project geared up its implementation and in 2020 its utilization rates reached the highest, before slowly decreasing towards the end of the project.

Figure 1: Project Expenditures by Year



The LCUD project contributed to significant structural changes in BiH - including behavioral, policy, and institutional changes, such as the development of the ESCO market frame and implementation of the first ESCO projects resulting from LCUD project intervention. As of the reporting of this TE, the project facilitated the following LCUD investments:

[28] Project Implementation Report, 2023.

- Total of 2,010,000 USD realized investments in energy services (utilizing the ESCO model) for 4 public buildings in Central Bosnia Canton of 1,23 mil USD, 2 public lighting systems in Cazin with value of 116,000 USD and Bratunac with value of 623,900 USD.
- Total of 19,597,163.94 USD was realized through the Fund for Environment of FBiH public calls in 2018, 2019, 2020 and 2021 for projects that advanced energy efficiency, renewable energy, air quality, transport and waste management. In this reporting period, the 2022 call was canceled as there was political blockage for the appointment of the government of FBiH, which disabled all new work within entity level institutions.
- Total of 4,363,471.36 USD was realized through the Environmental Protection and Energy Efficiency Fund of RS public calls in 2019, 2020 and 2022 for projects in waste management, energy renovation and urban transport. In this reporting period, 242,984 USD was invested into LCUD projects.
- Total of 145,000 USD was invested in green logistic schemes pilot projects in 8 municipalities in BiH in the previous reporting period.
- Total of 442,000 USD was invested in the implementation of 66 solar systems in households for prosumers in urban areas (Cazin, Gradiška, Prijedor and Mostar) with 40% financing by cities and around 60% financing provided by citizens, in this reporting period.

The project initiated public procurement for energy services (utilizing the ESCO model) in 2 public lighting systems with the estimated contract value of 1,425,215 USD; Stanari with a value of 817,693 USD and Srbac with a value of 607,522 USD. The contracts were expected to be signed by the end of August 2023, however there were appeals under the law on public procurement and only the project in Stanari was accepted, while the project in Srbac remains in legal procedure and continues to be on hold.

The project plans to complete the following LCUD investments prior to the project's closing in the next few months: mobilize a total of 24,427,707 USD for the public procurement for energy services (ESCO model) in 3 public buildings of Gradiška (1,393,157 USD); 20 public buildings in Zenica-Doboj Canton (10,675,000 USD); and 30 public buildings in Central-Bosnia Canton (12,359,550 USD). While a total amount of 2,5 mil USD is anticipated through parallel financing of the environmental funds at the entity level.

Overall assessment of the value added by the project to drive significant and sustainable structural changes can be rated as Moderately Satisfactory (MS): more or less meets expectations and/or some shortcomings.

3.3.5 Overall Outcome

Overall, the LCUD project has achieved and surpassed its end of project targets. The project implemented 65 (of target 45) LCUD infrastructure projects and exceeded its target by reaching a total of 164,677[29] beneficiaries. This level of accomplishment is impressive, particularly given the slow start to the project and the complex legal and procedural obstacles. A consensus of stakeholders reported that one of the

[29] The total reported beneficiaries was 204,394. However, an estimated 39,717 beneficiaries for Zvornik Recycling Yard, which had been stopped prior to implementation.

main reasons for the slow start was the high number of staff turnover at UNDP, which demanded time for new staff to familiarize themselves with the project and the stakeholders. That, in combination with the lack of appropriate laws supporting the ESCO model, contributed to the slowed pace and required the PMU to creatively find solutions to work within the current laws in a way that facilitated immediate implementation, while at the same time supporting the development and approval of a new law to better support employing the ESCO model in the future.

Assessment of Outcomes	Rating[30]	Remarks
Relevance	Satisfactory	Well aligned with global and government priorities; limited alignment with community priorities.
Effectiveness	Satisfactory	Met or Exceeded expectations for most targets
Efficiency	Moderately Satisfactory	Project has more or less met expectations and/or some shortcomings.
Overall Project Outcome Rating	Satisfactory	Overall the project achieved what was set out in its design.

3.3.6 Sustainability: financial (*), socio-economic (*), institutional framework and governance (*), environmental (*), and overall likelihood (*)

Sustainability: To what extent are there financial, institutional, socio-political, and/or environmental risks to sustaining long-term project results?

The project's main investment into retrofitting public facilities and installing environmentally friendly heating systems that will be maintained by ESCO companies for 10 years and then owned by the public facilities establishes local ownership and continued use from the start. The establishment of waste management systems are a strong foundation for continued use, although there was concern by some government officials about the readiness of full implementation by the local, entity and state levels of government.

As part of its exit strategy, the project is seeking to mobilize an additional 29,743,193 USD managed through the Environmental Funds utilizing the same innovative financial mechanisms established during the LCUD project. Although the vast majority of the LCUD project was funded by different levels of government, mainly from the Environmental Funds, there is not yet a clear commitment to continue financing these projects.

If these additional funds are secured, they are intended to support continued implementation and scaling of the project's ESCO interventions. These interventions are planned to be coupled with the established revolving funds within the Ministry of Spatial Planning of FBiH and the entity's Environmental Funds, as well

[30] Outcomes, Effectiveness, Efficiency, M&E, Implementation/Oversight & Execution, Relevance are rated on a 6-point scale: 6=Highly Satisfactory (HS), 5=Satisfactory (S), 4=Moderately Satisfactory (MS), 3=Moderately Unsatisfactory (MU), 2=Unsatisfactory (U), 1=Highly Unsatisfactory (HU). Sustainability is rated on a 4-point scale: 4=Likely (L), 3=Moderately Likely (ML), 2=Moderately Unlikely (MU), 1=Unlikely (U)

as with a green credit line that is currently being developed with Intesa Sanpaolo bank and will include ESCO projects.

The 65 bylaws, regulations, legal analysis and strategic documents developed and advocated for by the project at the local, entity and state levels have established a foundation for continued efforts in the future. However, a law specifically enabling some of the key obstacles, if approved by the government, would facilitate scaling and quality control.

Engagement and commitment to the project has been established with country partners at the local, entity and state levels throughout the project period. Stakeholders agree that this has been a beneficial project and they expect to see results. The numerous project related guides and protocols developed during the project will provide institutional knowledge and resources for relevant responsible parties to support continued implementation and expansion after the project has closed.

Other than mobilizing resources, the other major challenge to sustainability of these efforts is the significant added value UNDP contributed to enhancing government capacity in gaining the necessary approvals and oversight of the overall processes to support quality assurance. However, UNDP has a strong commitment to supporting BiH in achieving its 2030 Agenda goals and supporting the improvement of issues in BiH related to energy and the environment in general, including the reduction of GHG emissions.

Sustainability	Rating[31]	Remarks
Financial resources	Moderately LIkely	Government interest and financial capacity is likely, though not commitment yet.
Socio-political/economic	Likely	Project interventions were of continued interest to by stakeholders at all levels
Institutional framework and governance	Moderately Likely	Establishment of sufficient bylaws, regulations, etc will enable further efforts, though government capacity is limited.
Environmental	Likely	Project results have established a basis for longer term improved environmental impacts.
Overall Likelihood of Sustainability	Likely	The largest project investments (ESCO model) are designed for the longer-term and necessary foundation is in place.

3.3.7 Country ownership

The project was well designed for facilitating country ownership of a number of components of the project. Adoption of the NIF reflected the high-level country ownership at the state and entity level[32], in both FBiH

[31] Outcomes, Effectiveness, Efficiency, M&E, Implementation/Oversight & Execution, Relevance are rated on a 6-point scale: 6=Highly Satisfactory (HS), 5=Satisfactory (S), 4=Moderately Satisfactory (MS), 3=Moderately Unsatisfactory (MU), 2=Unsatisfactory (U), 1=Highly Unsatisfactory (HU). Sustainability is rated on a 4-point scale: 4=Likely (L), 3=Moderately Likely (ML), 2=Moderately Unlikely (MU), 1=Unlikely (U)

[32] https://energetskisamit.ba/wp-content/uploads/2022/04/Decarbonization-of-Energy-Sector-H.Mujezin-G.Krstovic-I.Karamehmedovic-ES-2022-3-23-22-ENG.pdf

and RS, as a tool to support the gradual shift from predominantly grant-based financing for energy efficiency and low carbon urban development projects towards more innovative financing models. This approach has been designed to address specific structural, technical and financial barriers[33] in BiH.

Key government offices were engaged from its inception and participated in designing and guiding the project as members of the Project Board. Financial resources and mechanisms by the Environmental Funds ensured country investment into the project.

The project utilized the Direct Implementation Modality and stakeholders repeatedly expressed the importance of UNDP's contributions in enhancing government capacity may prove to be a challenge as the country takes ownership of project efforts. However, numerous efforts have been developed to address these issues. The establishment of a legal structure with a proven pathway to implement ESCO projects should facilitate replication and be sufficiently managed by country actors, though it has not yet been tested. The interventions improving low-carbon public facilities and utilities, were well-designed to integrate into country systems and operations. Buildings were renovated and new heating systems installed. These structural improvements are owned by the beneficiaries. In addition, local SMEs led the ESCO projects and are committed to continuing to do so for 10 years.

Activities supporting low-carbon waste management were also designed to integrate country ownership. The EMIS system was established within the government structure and included training on its use. However, stakeholders were concerned that the transfer of knowledge and maintenance of complete and accurate data will be possible without the support of UNDP's expertise and additional capacity. Public utilities are committed to utilizing the waste management infrastructure put in place by the project, such as eco islands. However, the level of community use is not yet clear.

3.3.8 Gender equality and women's empowerment

The LCUD project was designed with the understanding that, although the project would affect communities as a whole, there were differences in impacts on women and men. To that end, gender equality and women's empowerment were taken into consideration in the logic framework, particularly related to capacity development. Foundational to this project were the vast partnerships that were developed. Although the number and range of partnerships exceeded targets, there was not an effort to achieve the "targeting of underserved communities/ groups and women," as articulated in the second part of that indicator.

Women's participation in capacity building was a specific focus of the project and targets were mostly met. The project trained a total of 2,272 participants from the Environmental Funds and other stakeholders on the operation of the ESCO Fund and other financing mechanisms, of which over 50% were women. Trainings were also conducted on energy management and LCUD project design and implementation to 3,703 public and private sector participants, about 40% of whom were women. However, of the total 164,677 beneficiaries for the project, 51% were women. This is 10% less than the targeted 60% women as direct beneficiaries, even though an estimated 65% of the public sector workforce were women,

[33] https://undp-climate.exposure.co/from-high-buildings-to-low-carbon

according to the project document. Awareness raising activities were successful, exceeding its target by reaching over 1 million people through online promotion, of which the goal for women's participation (50%) was slightly surpassed at 54%.

The project was not designed nor included ways to address the additional barriers for women or other vulnerable or underserved groups to further advance those who are often left behind.

3.3.9 Other Cross-cutting Issues

The project also conducted activities related to Innovation, South South and Triangular Cooperation (SSTC), Human Rights, and Leave No One Behind (LNOB).

As discussed previously, in BiH the market for ESCO did not exist prior to this project and low-carbon urban development was limited. Therefore, building this market required new and innovative efforts. The financial mechanism developed specifically for this project to facilitate resources were channeled through the Environmental Funds to the project activities. Another major innovation from this project was the high level of collaboration between the private and public sector, which had never before occurred in BiH and participating at high-level energy events with more than 100 participants each.

From the outset, the project incorporated SSTC by integrating the learnings from the UNDP-GEF Energy Efficiency Project in Croatia. The UNDP BiH team also shared their experiences in adapting and employing the ESCO model with other UNDP offices, such as UNDP Serbia. Study visits were focused on ESCO mechanisms and ESCO companies in Serbia (Negawatt solutions) and Croatia (HEP ESCO) with the purpose of sharing experiences and building trust in the applicability of ESCO in BiH based on regional successes.

As part of adopting a Human Rights based approach and addressing the UN principle of Leave No One Behind, the project conducted activities that were intentionally designed to support the entire country, adapting their approach to the needs and context of each entity. As part of the effort to improve harmonization within the country, pre-existing agreements between entities about sharing information were leveraged so that the EMIS system could be developed to allow data from each entity to be integrated into one comprehensive system. However, the project did not incorporate ways in which their efforts could specifically include or address issues related to vulnerable or marginalized groups, other than women.

3.3.10 GEF Additionality

The GEF Independent Evaluation Office classifies additionality into six factors[34] including 1) Specific Environmental Additionality, 2) Legal and Regulatory Additionality, 3) Institutional and Governance Additionality, 4) Financial Additionality, 5) Socio-Economic Additionality, and 6) Innovation Additionality. The following table summarizes the GEF additionalities in the context of the LCUD project.

[34] An Evaluative Approach to Assessing GEF's Additionality, GEF: IEO March 2020 https://www.gefieo.org/sites/default/files/documents/evaluations/additionality-framework.pdf

Table 12: GEF Additionality Factors

Additionality Factors	Description	Remarks
Specific Environmental Additionality	The GEF provides a wide range of value-added interventions/services to achieve global environmental benefits (e.g., carbon dioxide reduction, reduction/avoidance of persistent organic pollutant emissions)	The LCUD project was fully aligned with the Global Environmental Fund's Focal Area on Climate Change Mitigation through building capacities, systems and infrastructure for reducing GHG emissions leading to a reduction in CO2. Since COP 28, member parties to the UNFCCC have intensified their commitment to the Energy Transition, with specific goals and commitments for the short term (by 2030) and long term (by 2050). This project aligns directly with these commitments, positioning Bosnia at the forefront of these efforts. (3.3.2. Relevance)
Legal and Regulatory Additionality	The GEF helps stakeholders' transformational change to environment sustainable legal/regulatory forms	The project has contributed to transformational change through the development of 65 bylaws, regulations and other official documents, establishing a foundation from which efforts to reduce GHG emissions and CO2 will be able to be continued within BiH. (3.3.3 Effectiveness: Component 4)
Institutional and Governance Additionality	The GEF provides support to the existing institution to transform into efficient/sustainable environment manner	The project developed a financial mechanism and waste management system within the government structure that have been tested and utilized by the project to ensure readiness for the government to continue using as the project closes. (3.3.3 Effectiveness: Component 1)
Financial Additionality	The GEF provides an incremental cost that is associated with transforming a project with national/local benefits into one with global environmental benefits	The GEF incremental funds were instrumental in gaining country level buy-in and co-financing, as well as for building capacities of relevant stakeholders. (3.3.4 Efficiency)

Socio-Economic Additionality	The GEF helps society improve livelihood and social benefits through GEF activities	The project provided capacity building and opportunities for employment by SMEs through ESCO projects. In the longer term, the strengthening of SMEs and offering more opportunities for projects may contribute to driving a stronger economy that will yield livelihood and social benefits for people throughout the country. (3.3.3 Effectiveness: Component 1)
Innovation Additionality	The GEF provides efficient/sustainable technology and knowledge to overcome the existing social norm/barrier/ practice for making a bankable project	The project included a number of key innovations, most significantly were the financial mechanism with the Environmental Funds and adaptation of the ESCO model, particularly the significant involvement of the private sector. The emphasis on capacity building and employment opportunities for SMEs through ESCO is important. By fostering the growth and resilience of SMEs in the energy sector, this initiative not only creates immediate job opportunities but also lays the foundation for long-term economic benefits. The strengthened SMEs will play a vital role in driving economic growth. The approach elevates the significance of the project beyond its environmental impact. (3.3.3 Effectiveness: Component 2)

3.3.11 Catalytic/Replication Effect

The LCUD Project directly responds to challenges in BiH by employing an approach intended to catalyze and increase larger flows of finance for low-carbon investment, diversification of funding sources and new instruments (ESCO), and shifting the established paradigm about how to make these investments. While also catalyzing a more efficient, evidence-informed approach to lowering carbon emissions through improved waste management systems.

Involving a large number of stakeholders from the private and public sectors also lays the groundwork for a broader catalytic effect throughout the country, as the dialogue and results are shared among colleagues and other interested parties.

The strengthening of institutional and technical capacities has provided an important foundation, which will greatly support replicability and extension of the project's results. Through a series of methodologically designed training, the project transferred concrete knowledge and skills to end users in terms of reducing emissions or implementing the ESCO model.

The project developed a complete ESCO methodology, including feasibility studies, technical documentation, related manuals, examples of tender documentation that can be used as a demonstration and catalytic example for new ESCO projects in BiH. The project has also innovatively introduced the green logistic scheme for waste management, which is intended to further produce a catalytic effect in terms of fuel savings and reducing CO2 emissions in the longer term.

3.3.12 Progress to Impact

The overarching goal of this project was to "leverage investment for transformational shift towards low-carbon urban development (LCUD) in BiH, with the aim to "scale-up and diversify investment in LCUD in BiH by removing financial, capacity and policy barriers."[35] In the Logical Framework, the results of the project are intended to contribute to achieving the Sustainable Development Goals (SDGs), namely SDG 7: Affordable and clean energy, SDG 11: Sustainable cities and communities, and SDG 13: Climate action. The Logical Framework also indicates the project was intended to contribute to the UNDP Strategic Plan Output 1.5 on inclusive and sustainable solutions adopted to achieve increased energy efficiency and universal modern energy access (especially off-grid sources of renewable energy). To demonstrate impact in achieving these longer-term goals was not possible in the timeframe of this TE. Given the slow start to the project, the majority of activities and interventions have been conducted in the last two years, which also limits the ability to measure progress towards impact. For the ESCO projects, another constraint was the limited data available of usage prior to the intervention, making it challenging to measure changes in consumption and emissions from pre to post intervention.

However, it is clear that some progress towards impact has been made. The National Investment Framework (NIF) sets the guide posts for sustainable development on investment in energy efficiency in buildings in BiH and the following evidence is noteworthy:

- Current estimation is that the implementation of the LCUD investment and infrastructure activities will end up with minimum 118,763.81 tCO2eq to 184,583.35 tCO2eq emissions reduced over their lifetime, which in both cases is above the revised target.
- 164,677 people have benefited, including 50,8% women.
- The project has developed 65 local, entity and state-level regulations, legal analysis and strategic documents that are supporting LCUD development to lead to systematic change.
- By using UNDP best practices in online promotion: 1,062,352 people were reached (146,000 in 2022, 310,090 in 2021, 79,221 In 2021, 477,500 in 2020, 39,541 in 2019) out of which 54% are women. TV media: 1 million citizens. Face-to-face modality: more than 1,200 representatives of the public, commercial and residential sectors.

[35] Project Document for Catalyzing Environmental Finance for Low-carbon Urban Development, 2012.

4. Main Findings, Conclusions and Lessons Learned

The following are main findings, conclusions and lessons based on the evidence-based analysis presented in the findings section of this Terminal Evaluation.

4.1 Main Findings and Conclusions

4.1.1 Project Design and Implementation

The project was thoughtfully designed, taking into consideration learnings from past projects both within the country and in other countries. Most significantly, the project incorporated lessons as well as built on the results of the UNDP Green Economic Development (GED) project.

Partnering with an expansive group of stakeholders proved crucial. The majority of funding for the project was co-financed by the Environmental Funds, totaling over USD 24 million. The Project Board consisted of key government actors at the entity and state levels who provided important information to the design and implementation of the project, promoting and guiding the project's progress. These relationships also help the project to navigate the complex structure with BiH and participate in finding solutions. Partnerships with local governments, SMEs, and other stakeholders were critical to ensuring strong implementation within each location.

Project Implementation had a slow start due to delayed government approvals and the COVID-19 pandemic. High staff turnover with government partners and within the project team also affected the pace of implementation. After restructuring the project team in 2021, the project has accomplished a tremendous amount and with the project extension, most targets have been met. UNDP provided invaluable capacity filling a critical gap within government offices, while their oversight and technical expertise facilitated successful interventions.

4.1.2 Relevance

The project aligned with country priorities with the intention of contributing to BiH's achievement of its Strategy for Climate Change and Adaptation and Low Emission Development and its National Emission Reduction Plan. The project was also aligned with BiH's commitment to the United Nations Framework Convention on Climate Change and the Paris Agreement, and BiH's accompanying Nationally Determined Contribution (NDC) that specifically articulated the need for international financial support to enable the development of a sustainable system to reduce GHG emissions from public buildings. It was linked to the SDG Framework in BiH and aligned with the Global Environmental Benefits through building capacities for the country's first climate change National Adaptation Plan (NAP),[36] as well as the National Energy Efficiency Action Plan (NEAP). Some local governments prioritized the transition and signed the EU Covenant of Mayors initiative and adopted their own Sustainable Energy Action Plans (SEAPs) with GHG

[36] https://unfccc.int/sites/default/files/resource/NAP-Bosnia-and-Herzegovina%20.pdf

emissions reduction targets.

Harmonization across their complex government administration has been a top priority for BiH. From the outset, the project engaged a wide range of government actors to build understanding and support across entities and ministries. The project leveraged existing agreements and developed systems to facilitate sharing data between entities and supporting state level databases.

As project implementation advanced in the second half of the project period, the project team worked in close collaboration with local government officials and direct beneficiaries, facilitating alignment with local development plans. However, community support varied with most stakeholders highly satisfied with the need these interventions addressed, while some were not satisfied with specific details or, in the case of the green logistic scheme for waste management, the study recommendations were reported as not feasible for the context by a few. Communications were also improved in the project team restructuring, reaching large numbers of citizens through virtual and in-person activities, as well as written documents, leading to increased awareness. However, community support remained limited and at times blocked progress towards the project's goals.

4.1.3 Effectiveness

The complex nature of the LCUD project required an extensive network of partnerships to ensure its success. To that end, the project surpassed its target for the number of partnerships established, laying a strong foundation for the project's implementation and supporting its sustainability. In addition to the relationships already mentioned with the Environmental Funds and other members of the Project Board, the project developed partnerships with the Chambers of Commerce from FBiH and RS to create the ESCO Associations at the entity level. They partnered with a public utility company in each of the two entities. When implementing the ESCO model at the local level, the project partnered with 9 municipalities, 7 public institutions and enterprises, and 6 cantonal institutions. They also partnered with 5 cities or municipalities to support prosumers at the local level and 9 other municipalities for the implementation of the green logistic scheme of waste management As the project moves towards closing, they expanded their existing partnerships with entity level institutions (the Ministries of Energy, Spatial Planning and Environmental Protection in both entities) for updating the draft and adoption of Rulebooks for contracting and implementation of energy services in FBiH and RS. The major investment of the project focused on the implementation of infrastructural LCUD projects in public buildings and utilities employing the ESCO model (Component 2). With the project extension time, targets were surpassed and 65 LCUD infrastructural interventions were implemented. Completed ESCO projects were well received. Some obstacles arose with governmental procedures, logistical challenges and complications between partners. Although not all were able to be resolved in favor of the project, all stakeholders were appreciative of the high quality and crucial capacity and support provided by the UNDP team to address these issues.

The project's aim to reduce carbon emission by improving waste management and transportation (Component 3) received a smaller investment in resources and time, appropriate to the nature of this component, however, also as a result of a project design that was too expansive and lacked a sufficient roadmap for a fully successful implementation. The project was able to achieve the establishment of digital

waste management systems that are functional in both entities of BiH and recognized through the legal framework. Both systems were designed to enable the usage and generation of reliable waste-related data to inform the drafting of strategic and action plans, as well as demonstrate their impact on the reduction of GHG emission and generated waste and contribute to reporting to the European Union on the generation and waste flows in BiH. While the green logistics scheme for waste management eco-islands were installed, some participants reported limited use due to challenges with citizens changing their habits for their individual waste disposal and their accuracy in sorting recyclable materials. Participants also reported disappointment with the results from studies conducted on waste removal routing, stating that the assessment for timing was not accurate and the routing required such a significant level of change in habits that citizens would not comply. A concerted effort to raise citizen awareness was made, reaching over 1 million citizens for both online promotion and media efforts.

To create an enabling environment for these two main objectives of the project, two underlying efforts were conducted to ensure a strong financial mechanism (Component 1) and supportive governmental policies, regulations and procedures, along with intergovernmental coordination (Component 4). The LCUD project created an innovative financial mechanism through the Environmental Funds that facilitated the project's implementation and the government's commitment to the project's success. Building the capacity of SMEs by conducting trainings and developing written resources were key underlying factors to ensure capacity in conducting the ESCO model during and after the project. While complementary efforts were being conducted through the development of 65 bylaws, regulations, legal analysis and strategic documents at the local, entity and state-level to support the project in implementing its activities that would lead to the country's ultimate goal of reducing carbon emissions. Although this was a major achievement, some stakeholders believed that for the ESCO model, without one clear law its success will be limited.

4.1.4 Efficiency

The project management structures were well designed after the restructuring and the project benefited from the support and guidance from the Project Board throughout. The cumulative delivery has increased from 37% by 2021 to 58.36% by 2022 to an impressive 80.19% by 2023. Also in the last 2 years, the project was able to leverage investments into concrete, measurable outcomes by focusing on piloting the ESCO model and digitalizing the waste sector to decrease GHG emissions. As of December 2023, a major share (74%) of the total resources spent was utilized under Outcome 2, followed by Outcome 1 (23%), Outcome 3 (2%) and Outcome 4 with only 1%.

The LCUD project contributed to significant structural changes in BiH, including changes, such as the development of the ESCO market framework and implementation of the first ESCO projects resulting from LCUD project intervention. The vast majority of co-financing was 19,222,464 USD, which was realized through the Fund for Environment of FBiH public calls for projects that advanced energy efficiency, renewable energy, air quality, transport and waste management and 4,426,126.22 USD through the Environmental Protection and Energy Efficiency Fund of RS public calls for projects in waste management, energy renovation and urban transport. The project plans to mobilize another 24,427,707 USD for the

public procurement for energy services (ESCO model) in Gradiška, Zenica-Doboj Canton, and Central-Bosnia Canton.

4.1.5 Sustainability

Although the project had not developed a specific exit strategy, numerous activities to facilitate sustainability of project efforts have been and are being implemented. The deep engagement of government actors at all levels, including managing the project's financial mechanisms and information systems, demonstrate a strong commitment of country ownership. The project aims to mobilize an additional 29,743,193 USD to be managed through the same financial mechanisms and support similar projects in other locations. The 65 bylaws, regulations, legal analysis and strategic documents developed by the project and approved by relevant government offices provide a pathway for continued efforts in the future. However, a law specifically enabling some of the key obstacles, if approved by the government, would facilitate scaling and quality control.

The project's main investment into retrofitting public facilities and installing environmentally friendly heating systems that will be maintained by ESCO companies for 10 years and then owned by the public facilities establishes local ownership and continued use from the start. The establishment of waste management systems are a strong foundation for continued use, although there was concern by some government officials about the readiness of full implementation by the local, entity and state levels of government.

4.1.6 Gender, Inclusion, South-South and Triangular Cooperation, and Innovation

The LCUD project was designed with the understanding that there were differences in impacts on women and men and expressed in the project's logical framework through levels of participation by women. Women's participation in capacity building mostly met the targets, with over 50% women taking part in trainings for the Environmental Funds and other stakeholders on the operation of the ESCO Fund and other financing mechanisms, and about 40% women in trainings on energy management and LCUD project design and implementation. However, of the total 164,677 beneficiaries for the project, 51% were women, which is 10% less than the targeted 60%. No other ways in which gender or inclusion of other vulnerable or underserved groups were integrated into the project design or implementation.

As part of adopting a Human Rights based approach and addressing the UN principle of Leave No One Behind, the project conducted activities that were intentionally designed to support the entire country. As part of the effort to improve harmonization within the country and across the three main ethnic groups, pre-existing agreements between entities about sharing information were leveraged so that the EMIS system could be developed to allow data from each entity to be integrated into one comprehensive system. However, the project did not incorporate ways in which their efforts could specifically include or address issues related to those most underserved or marginalized.

Building the new market for ESCO required innovative approaches and tools, most significant were the financial mechanisms developed to facilitate resources channeled through the Environmental Funds and the high level of collaboration between the private and public sector, which had never before occurred in BiH.

From the outset, the project incorporated SSTC by integrating the learnings from the experiences of other countries, such as the UNDP-GEF Energy Efficiency Project in Croatia. The UNDP BiH team has begun to share their experiences in adapting and employing the ESCO model with other UNDP offices, for example, as occurred in a mission to Serbia.

4.1.7 Progress towards Impact

The overarching goal of this project was to "leverage investment for transformational shift towards low-carbon urban development (LCUD) in BiH, with the aim to "scale-up and diversify investment in LCUD in BiH by removing financial, capacity and policy barriers."[37] It was not possible to demonstrate impact in achieving these longer term goals in the timeframe of this TE. Another limitation for measuring impact was the lack of data of usage prior to an ESCO intervention. However, it is clear that some evidence points to progress towards impact, such as the current estimation that the project will have contributed to a minimum 118,763.81 tCO2eq to 184,583.35 tCO2eq emissions reduced over their lifetime; 164,677 people have benefited from the project, including 50,8% women, the development of 65 local, entity and state-level regulations, legal analysis and strategic documents; and reached over 1 million citizens through online promotion and another 1 million citizens through TV media.

4.2 Lessons Learned

The following are the main lessons learned based on the results of this Terminal Evaluation.

- *Lesson #1: The ESCO model fills an important need in BiH.* The ESCO model meets a clear need and is in demand. To mobilize an estimated 380 million USD[38] required for the energy efficient reconstruction of public buildings in BiH, the ESCO model is an effective way to mobilize private sector investment and build local ownership.
- *Lesson #2: Direct Implementation better supports innovation.* Developing a new approach or model requires flexibility and risk-taking, which can be hampered by national execution. However, the project design and exit strategy would need to address details about how to ensure capacity and resources as the project is transferred to country ownership.
- *Lesson #3: Adaptive management is key to success.* When facing hurdles, particularly where there is risk and innovation, flexible project design and creative, adaptive project management with staff who have relevant expertise improves efficiency and effectiveness.
- *Lesson #4: Exit Strategy should be developed during the project design phase.* Although components of what would be included in an exit strategy were articulated in the project design, a well-developed exit strategy would focus project implementation on the end goal of local ownership, sustainability and long-term impact. This highlight a plan for how to ensure country ownership when there is limited local capacity.
- *Lesson #5: Legal infrastructure is critical for ensuring sustainable implementation.* Laws, bylaws, and regulations create a necessary enabling environment with a pathway for continued efforts.

[37] Project Document for Catalyzing Environmental Finance for Low-carbon Urban Development, 2012.
[38] Project Implementation Report, 2023. Note: Estimated financial resources may vary between 350-360 mill. EUR and over.

- *Lesson #6: Knowledge sharing and transfer supports implementation and sustainability.* Developing processes where beneficiaries and partners can share and learn from each other and systems with aligned information flow across all entities and at the state level will support learning for improved efficiency and decision-making, and support BiH's high priority for achieving harmonization across the country.
- *Lesson #7: Credit or revolving financing for ESCO companies.* A credit or revolving fund will enable large scale-up of the ESCO model. The project has already begun to develop a revolving fund in the Ministry of Spatial Planning FBiH and continues to advocate for the Environmental Funds to go towards re-establishing revolving funds.
- *Lesson #8: Multi-stakeholder engagement is critical for buy-in and country/local ownership.* Key stakeholders should be included at strategic moments relevant to their roles and the stage of the project. For example, the Project Board, with government actors who were critical for different aspects of project implementation, can guide the project from design through implementation and closure. While community engagement may be more focused around the planning and implementation of a particular intervention.
- *Lesson #9: Coordination with similar projects leverages resources and contributes to a stronger impact.* Implementing a complex project in a complex context with limited resources benefits from coordination with other projects working towards similar goals. For example, the joint UNDP effort among CCM UNDP projects (LCUD, Green Economic Development, and GCF LowCarbon) developed a sound basis for further ESCO market development.

5. Recommendations

The following recommendations were developed based on the results of this TE and further discussed during the debriefing workshop with UNDP staff. They are designed with the intention of being practical and actionable.

Table 13: Recommendations

		Timeframe	Responsible Party	Supporting Evidence
	For the LCUD Project			
1.	**Articulated Exit Strategy** A clearly defined exit strategy should have been developed in the project document. Having this	By March 2024	UNDP	**Criteria:** Effectiveness and Sustainability

	articulated from the outset provides a roadmap for transfer of ownership throughout implementation. However, a number of activities providing support for knowledge transfer and country ownership have been and continue to be conducted. A clear articulation of an exit strategy at this stage could still facilitate efficient transfer of ownership. In addition to the activities already being conducted, the exit strategy may include: ● Establishing a path for continued capacity building and resources for ESCO Associations to thrive; ● Developing a process for knowledge transfer to new municipalities: peer support from those who completed interventions with new locations (buddies, site visits), webinars, and how-to communications (tips sheet, best practices); ● Sharing portals, websites, lists of available consultants and ESCO practitioners; ● Ensuring alignment of the financial mechanism in accordance with the National Investment Framework; ● Developing a process to continue monitoring of Waste Management Plans. ● Ensuring data is entered into the system and promoting registration of relevant entities into the Waste Management Systems of FBiH and RS.			
2.	**Sharing and Transferring Knowledge across UNDP and GEF** Similar to the in-country learning outlined for the exit strategy, learnings should continue to be shared among other countries within the region and globally. This could be accomplished through study visits, written communications, participation in webinars, conferences, etc. Another option might be site visits or intentional interactions between similar level officials from other countries with BiH partners facilitated by UNDP (this might be a very light version of UNDP Global Center in Korea's model.	Continual	UNDP	**Criteria:** Effectiveness and Sustainability
	For Future Similar Projects			

3.	**Focused project design** Future projects should be designed with one clear focus (such as waste management or implementing the ESCO model), while continuing to include flexibility in implementation with an integrated approach that addresses legal and procedural challenges at different levels of government.	As applicable for future projects	UNDP/ GEF	**Criteria:** Effectiveness and Efficiency
4.	**Increased community involvement and women-owned organizations** To further support UNDP in achieving its goals of gender equality and leave no one behind, future projects should: ● Continue trainings of SMEs to expand their capacity to effectively manage more or larger ESCO projects, with a strong preference to women owned SMEs or those with at least 50% women on staff. ● Build capacity and prioritize opportunities for women to advance in the waste management sector. ● Integrate community involvement. This might be done through participation on the project board, activities and communications with community members updating progress and demonstrating results of each intervention. This would also strengthen alignment with public priorities and build support of communities for implementation within a municipality.	Continual	UNDP/ Environmental Funds	**Criteria:** Effectiveness, Gender and Women's Empowerment, and Leave No One Behind
5.	**Seek economies of scale for the ESCO model** The ESCO model would be more cost effective and have a bigger impact if projects were broadened to a larger scale within a municipality, once a sufficient number of SMEs are strengthened to competitively compete for the contracts.	Continual	Environmental Funds	**Criteria:** Effectiveness
6.	**Incentivized products with lowest GHG emissions** Although products utilized in the project were selected because of their reduction in GHG emissions, the project should incentivize the selection of products that will most significantly reduce GHG emissions, such as the use of heat pumps versus biomass systems.	As applicable for future projects	Environmental Funds	**Criteria:** Effectiveness and Sustainability

ANNEXES

Annexes

Annex A: TE ToR (excluding ToR annexes)
Annex B: TE Mission Itinerary
Annex C: List of persons interviewed
Annex D: List of documents reviewed
Annex E: Evaluation Question Matrix
Annex F: Questionnaire
Annex G: Co-financing table
Annex H: TE rating scales
Annex I: Signed UNEG Code of Conduct form
Annex J: Signed TE Report Clearance form
Annex K: Total number of stakeholders
Annex L: TE Logical Framework Status Update

Annexed in a separate file

TE Audit Trail

Annex A: Terms of Reference

Terminal Evaluation Terms of Reference (ToR) Template for UNDP-supported GEF-financed projects

Job Title:	International Consultant for Terminal Project Evaluation
Project:	„Catalyzing Environmental Finance for Low-Carbon Urban Development" (PIMS #5646)
Supervisor:	Raduška Cupać
Location:	Bosnia and Herzegovina
Travel requirement:	Yes
Area:	Resilience and Climate Change
Application deadline:	9 October 2023
Type of Contract:	International
Duration:	25 workdays implemented in the period 1 November 2023-15 February 2024

1. INTRODUCTION

In accordance with United Nations Development Programme (UNDP) and Global Environment Facility (GEF) Monitoring and Evaluation policies and procedures, all full- and medium-sized UNDP-supported GEF-financed projects are required to undergo a Terminal Evaluation (TE) at the end of the project. These Terms of Reference (ToR) set out the expectations for the TE of the full-sized Project "Catalyzing environmental finance for low carbon urban development" (PIMS #5646). The Project followed the Direct Implementation Modality (DIM), where the UNDP Bosnia and Herzegovina Country Office is the implementing Partner (IP). The Project started on 15 August 2017 and is in its seventh year of implementation. The TE process follows the guidance outlined in the document 'Guidance for Conducting Terminal Evaluations of UNDP-Supported, GEF-Financed Projects'.

2. PROJECT BACKGROUND AND CONTEXT

Background

Bosnia and Herzegovina is an upper middle-income country, with a population of roughly 3.28 million as of 2021 and with the aspiration to become a member of the European Union (EU). The country has a complex governance structure stemming from the Dayton Peace Accords, which ended the 1992–1995 war. In addition to the state-level authorities, the country comprises two entities - the Federation of Bosnia and Herzegovina and Republika Srpska, with Brčko District as autonomous self-government, 10 cantons within the Federation of Bosnia and Herzegovina and 145 local governments. Despite the positive momentum created in the country by the European Council's December 2022 decision to grant Bosnia and Herzegovina European Union (EU) candidate member status, the overall country context continues to be marked by political instability, slow pace of structural reforms, slowed-down economic stabilization, deepening poverty and inequalities, divisive political rhetoric and growing outmigration.

The COVID-19 pandemic and the war in Ukraine have engendered a series of interrelated crises that have exponentially increased the complexity of the challenges faced by society, governments and the economy. The war upended energy markets, heightened price volatility and energy insecurity. Higher food and energy prices have affected low-income households more severely, resulting in a slower pace of poverty reduction in the country. Poverty is estimated to have decreased by just 1% in 2022. Inflation surged to a two-decade high at 17.4% in 2023. The unemployment rate in 2023 is 13.3%, particularly high among young people (29%) and women (49,9%). The economy displays a high level of carbon and energy intensity: carbon dioxide emissions currently amount to 25,539 Mt CO2, with the residential sector, energy sector, agriculture, industrial processes and waste as the largest sources of CO2 emission. Women in the country are disproportionally excluded from the control and access to environmental resources and decision-making in the area of energy and environment. In 2021, the country adopted the Sustainable Development Goals (SDGs) Framework in Bosnia and Herzegovina, which sets the sustainable development pathways by 2030. Securing finances for sustainable development remains a major challenge, with Bosnia and Herzegovina facing a financing gap estimated at BAM 0.8 billion annually by 2030 to achieve the SDGs targets. In July 2023, Bosnia and Herzegovina presented its Voluntary National Review.

Bosnia and Herzegovina's economy and society is highly dependent on fossil fuels: electricity generation is 67% based on fossil fuels; the energy sector accounts for almost 70% of the greenhouse gas (GHG) emissions and Bosnia and Herzegovina emits five times as much carbon dioxide as the European Union average. The coal for electricity and heat energy comes from 14 major coal mines across Bosnia and Herzegovina - highly dependent on the coal economy, which together with coal-based power plants employ more than 17,000 people. 99,6 % of the population of Bosnia and Herzegovina is exposed to PM2.5 air pollution and that about 3,300 people die prematurely every year because of exposure to ambient PM2.5 air pollution in the country. New carbon taxation regulatory mechanisms within the European Union are estimated to cause 22% drop in export and 2,461 laid off workers only in the metal industry in Bosnia and Herzegovina. This will further raise poverty and inequalities due to the low-carbon transition negative impact on economy, carbon-intensive industries and communities dependent on them.

The draft national energy and climate plan (NECP) for Bosnia and Herzegovina until 2030 outlines a strategy that includes the decommissioning of coal power plants with a combined capacity of 410 MW and no plans for new coal projects. Instead, some existing coal-fired facilities would be transitioned to biomass. This shift in energy strategy is driven by concerns about environmental impact, the aging infrastructure of coal-fired plants, and the country's commitment to align with EU standards as it aspires

for EU membership. Numerous initiatives have been launched so far to harness this clean energy source. Wind and solar energy projects are gaining traction, supported by government incentives and regulatory frameworks designed to foster their growth. With support by UNDP and the Global Environment Facility, the Energy Service Companies (ESCO) model in Bosnia and Herzegovina has been introduced as a breakthrough, enabling the development and delivery of energy services with reduced financial risk. The ESCO model is recognized in the EU as an important means of mobilizing private capital, as well as a job-creation opportunity. Nonetheless, Bosnia and Herzegovina faces challenges in terms of enhancing nationwide cooperation and coordination, as well as improving the fragmented and inconsistent legislative and regulatory framework governing the energy sector. The transition towards renewable energy sources, improvements in energy efficiency, and alignment with EU standards represent positive strides forward. However, concerted efforts will be necessary to address the aforementioned challenges and to position the country's energy sector for a sustainable and environmentally friendly future.

About the project

Catalyzing Environmental Finance for Low-carbon Urban Development (URBANLED) Project is financially supported by the Global Environment Facility (GEF) and implemented by the United Nations Development Programme (UNDP) in Bosnia and Herzegovina. The total value of the project is USD 44,420,627, consisting of GEF Trust Fund financing in the amount of USD 2,370,000, parallel co-financing from UNDP in the amount of USD 4,500,000, and government funding in the amount of USD 37,550,627.

The overall objective of the Project is to leverage investment for transformational shift towards low-carbon urban development in Bosnia and Herzegovina thereby promoting safer, cleaner, and healthier cities and reducing urban GHG emissions.

The project works simultaneously across different sectors and with multiple stakeholders in both the private and public spheres, focusing on the following four components:

Component 1. Innovative Financing Mechanism for Implementation of Low-Carbon Urban Development Concept (LCUD) addresses the identified financial barriers by strengthening the EFs' capacity to finance infrastructural LCUD projects. Through this component, the Project contributes to the following outcomes: Outcome 1.1: Strengthened public capacities to programme and monitor environmental finance for LCUD. Outcome 1.2: Increased and diversified sources and modalities of public investment in LCUD.

Component 2 Low-carbon public facilities and utilities addresses the municipalities' lack of capacity to prepare and implement infrastructural LCUD projects in public buildings and utilities. Through this component, the Project contributes to the following outcomes:
Outcome 2.1: Strengthened capacities of municipal managers, companies and utilities to monitor resources use, prepare and implement feasible infrastructural LCUD projects.
Outcome 2.2: Reduced GHG emissions from pilot investment.

Component 3 Low-carbon waste management and logistics (transport) addresses identified shortcomings in municipal capacities for LCUD in the waste management and logistic sector. Through this component, the Project contributes to the following outcomes:

Outcome 3.1: Reduced GHG emissions from improved waste management system as a result of waste minimization.
Outcome 3.2: Reduced GHG emissions from improved waste management system as a result of waste collection route optimization.
Component 4 National and sector policies, institutional coordination and awareness raising on LCUD addresses gaps in the enabling environment for LCUD at state and entity levels by promoting the adoption and supporting enforcement of essential policies and regulations, institutional coordination (vertical and horizontal) among relevant public authorities and providing targeted capacity building and training support to relevant authorities. Through this component, the Project contributes to the following outcomes:
Outcome 4.1: LCUD-related policies adopted and institutional coordination strengthened.
Outcome 4.2: Increased awareness of urban dwellers regarding LCUDs.

A detailed outline of the Project Result Framework, its outcomes and outputs is available in Annex A of the ToR.

The Project is aligned with and contributes to the Agenda 2030 and the SDGs, primarily SDG 7: Affordable and clean energy - Ensure access to affordable, reliable, sustainable and modern energy for all; SDG 11: Sustainable cities and communities – Make cities and human settlements inclusive, safe, resilient and sustainable; SDG 13: Climate action - Take urgent action to combat climate change and its impacts, as well as is aligned with the SDG Framework in Bosnia and Herzegovina, particularly its “Smart Growth” development pathway.

In addition to government institutions and civil servants, the beneficiaries of the Project are in both the public and private sectors, including the general public, vulnerable groups, workers, educators, NGOs. Target groups also include utility companies in Bosnia and Herzegovina dealing with waste management.

The Project is implemented in partnership with Ministry of Foreign Trade and Economic Relations of Bosnia and Herzegovina, Ministry of Spatial Planning, Civil Engineering and Ecology of Republika Srpska, Ministry of Environment and Tourism of the Federation of Bosnia and Herzegovina, Environmental Fund of the Federation of Bosnia and Herzegovina, Environmental Protection and Energy Efficiency Fund of Republika Srpska.

3. TE PURPOSE & OBJECTIVES

Purpose

This TE will assess the achievement of the Project results and outcomes (as per the Project Document and Results Framework) to draw lessons to improve sustainability of benefits from this project and aid in the overall enhancement of UNDP programming. The Evaluation findings will also be used to promote accountability and transparency of the Project’s overall performance and work.

The Evaluation will review all interventions implemented under the Project and their contribution to change triggered around low-carbon urban development in Bosnia and Herzegovina and identify the factors that promote or hinder their achievement as important feedback into ongoing or future decision making, including for adapting successful interventions to suit changing context.

Objective

The TE of the Project "Catalyzing Environmental Finance for Low-Carbon urban Development" (PIMS #5646), will have the following objectives:

- Assess the overall Project progress vis-à-vis the Result Framework based on data, qualitative information and evidence on results and identify critical gaps or delays;
- Establish the relevance and coherence, effectiveness, efficiency, performance, and success or failures of the project, including the sustainability of results and the project exit strategies;
- Assess external environment and risks, such as crisis caused by the pandemic, as well as internal, including weaknesses in programme design, management and implementation, human resource skills, and resource
- Engage all relevant stakeholders (institutions, state, entity and cantonal ministries, local governments, the international community, etc.) in structured conversations, which will enable collective insights and distilling of key lessons learned in relation to (signals of) transformative change induced by the Project, mistakes, as well as important cross-cutting issues, such as innovation, gender equality and leaving no one behind;
- Use different level analysis to generate understanding of change processes and assess how this change was made and what specific contribution did the Project make to the change;
- Formulate strategic recommendations for consideration by the Project owners and its partners (Project Board, UNDP, GEF and other relevant stakeholders), towards more effective Project implementation in the future, or adjustments, as needed.

4. TE APPROACH & METHODOLOGY

The TE will be implemented in line with the "Guidance for Conducting Terminal Evaluations of UNDP-Supported, GEF-Financed Projects" and the "United Nations Guidelines on Integrating Human Rights and Gender Equality in Evaluations". The TE report must provide evidence-based information that is credible, reliable and useful.

The TE will be conducted by the Evaluation team composed of an International Evaluation Consultant (Evaluation Team Leader) and National Evaluation Consultant. The Evaluation Team Leader will lead the evaluation process and decide on planning and distribution of the evaluation workload and tasks. She/he will collaborate with the National Evaluation Consultant who will support the evaluation process. A detailed plan for the Evaluation process will be proposed by the Evaluation Team and agreed as a part of the Evaluation Inception Report.[1]

The Evaluation team is expected to follow a participatory and consultative approach ensuring close engagement with the Project Team, government counterparts (the GEF Operational Focal Point), Implementing Partners, the UNDP Country Office, the Regional Technical Advisor, direct beneficiaries and other stakeholders. The specific design and methodology for the TE should emerge from consultations between the TE team and relevant stakeholders regarding what is appropriate and feasible for meeting the evaluation purpose and objectives and answering the evaluation questions, given limitations of budget, time and data.

The TE methodology should employ innovating approaches, relevant quantitative, qualitative or combined methods to conduct the Evaluation, including data triangulation based on diverse ecosystem

of evidence, using gender sensitive data collection and analytical methods and tools applicable in the concrete case. Limitations to the chosen approach/methodology and methods shall be made explicit by the Evaluation team and the consequences of these limitations discussed in the proposed methodology. The Evaluation Team Leader shall, to the extent possible, present mitigation measures to address these limitations.

The Evaluation Team Leader is expected to carry out the evaluation process with careful consideration of these Terms of References. In cases where sensitive or confidential issues are to be addressed in the evaluation, the Evaluation Team Leader should ensure an evaluation design that do not put informants and stakeholders at risk during the data collection phase or the dissemination phase.

Standard evaluation methodology would suggest but not limit the evaluation to the following data collecting methods:

- Desk review. The Evaluation team will review all relevant sources of information including documents prepared during the preparation phase (i.e. PIF, UNDP Initiation Plan, UNDP Social and Environmental Screening Procedure/SESP) the Project Document, project reports including annual PIRs, project budget revisions, lesson learned reports, national strategic and legal documents, and any other materials that the team considers useful for this evidence-based evaluation. The Evaluation team will review the baseline and midterm GEF focal area Core Indicators/Tracking Tools submitted to the GEF at the CEO endorsement and midterm stages and the terminal Core Indicators/Tracking Tools that must be completed before the TE field mission begins. An extensive list of documents for desk review is provided in Annex B.
- Qualitative insights will be generated through interactive workshops and conversations with all relevant stakeholders, to generate insights, feedback and recommendations around the key questions suggested to drive the Evaluation. The Evaluation team is expected to leverage interactive tools (such as “the most significant change”, visual tools / cards/ creative canvases to capture insights, progress and suggestions, etc.) to unleash creativity and generate valuable insights from partners.
- Stakeholder involvement can also include interviews with stakeholders who have project responsibilities, including but not limited to Ministry of Foreign Trade and Economic Relations of Bosnia and Herzegovina, Ministry of Spatial Planning, Civil Engineering and Ecology of Republika Srpska, Ministry of Environment and Tourism of the Federation of Bosnia and Herzegovina, Environmental Fund of the Federation of Bosnia and Herzegovina, Environmental Protection and Energy Efficiency Fund of Republika Srpska, partner local governments, executing agencies, senior officials and task team/component leaders, key experts and consultants in the subject area, Project Board, project beneficiaries, academia, local government and CSOs, etc.
- The TE team is expected to conduct field visits to the following cities and municipalities: Sarajevo, Banja Luka, Gradiška, Srbac, Travnik, Trebinje. It may consider spot checks in the following project sites: ESCO public lightening systems in Srbac, and Bratunac; Ministry of Spatial Planning, Civil Engineering and Ecology of Republika Srpska in Banja Luka; Landfill "Obodina"; waste management center in Trebinje, ESCO public buildings in Sarajevo, Busovaca, Gradiska and Vitez, Ministry of Education, Science, Youth, Culture and Sports of Central Bosnia Canton etc.
- The Evaluator may also use a simple, gender sensitive questionnaire/survey to gain structured feedback and insights from all stakeholders and groups who benefits from the Project. The survey will be distributed via digital (SurveyMonkey) tools and if needed – in paper to ensure equal access to all.

The final methodological approach including schedule of meetings, interviews or field visits as well as sampling, data and analysis methods must be clearly outlined in the TE Inception Report2 and be fully discussed and agreed between UNDP, stakeholders and the TE team. The final TE report must

describe the full evaluation approach taken and the rationale for the approach making explicit the underlying assumptions, challenges, strengths and weaknesses about the methods and approach of the evaluation.

The total duration of the assignment is 25 workdays, implemented in the period November 2023 – February 2024.

5. DETAILED SCOPE OF THE TE

The TE will assess the entire Project. It will investigate the extent to which the Project's outcomes and outputs have been achieved since the beginning of the Project on 1 December 2017 and likelihood for their full achievement by the end of the Project on 1 June 2024.

The Findings section of the TE report will cover the topics listed below. A full outline of the TE report's content is provided in the Terms of Reference, Annex C.

The asterisk "(*)" indicates criteria for which a rating is required.

Findings

i. Project Design/Formulation

- National priorities and country driven-ness
- Theory of Change
- Gender equality and women's empowerment
- Social and Environmental Standards (Safeguards)
- Analysis of Results Framework: project logic and strategy, indicators
- Assumptions and Risks
- Lessons from other relevant projects (e.g., same focal area) incorporated into project design • Planned stakeholder participation
- Linkages between project and other interventions within the sector
- Management arrangements

ii. Project Implementation

- Adaptive management (changes to the project design and project outputs during implementation)
- Actual stakeholder participation and partnership arrangements
- Project Finance and Co-finance
- Monitoring & Evaluation: design at entry (*), implementation (*), and overall assessment of M&E (*) • Implementing Agency (UNDP) (*) and Executing Agency (*), overall project oversight/implementation and execution (*)
- Risk Management, including Social and Environmental Standards (Safeguards)

iii. Project Results

- Assess the achievement of outcomes against indicators by reporting on the level of progress for each objective and outcome indicator at the time of the TE and noting final achievements

- GHG emission reductions accompanied with verification of results and assumptions
- Assess the achievement of final targets set in the GEF indicators/tracking tools
- Relevance (*), Effectiveness (*), Efficiency (*) and overall project outcome (*)
- Sustainability: financial (*) , socio-political (*), institutional framework and governance (*), environmental (*), overall likelihood of sustainability (*)
- Country ownership
- Gender equality and women's empowerment
- Cross-cutting issues (poverty alleviation, improved governance, climate change mitigation and adaptation, disaster prevention and recovery, human rights, capacity development, South-South cooperation, knowledge management, volunteerism, etc., as relevant)
- GEF Additionality
- Catalytic Role / Replication Effect
- Lessons learned and recommendations
- Progress to impact

Main Findings, Conclusions, Recommendations and Lessons Learned

- The TE team will include a summary of the main findings of the TE report. Findings should be presented as statements of fact that are based on analysis of the data.
- The section on conclusions will be written in light of the findings. Conclusions should be comprehensive and balanced statements that are well substantiated by evidence and logically connected to the TE findings. They should highlight the strengths, weaknesses and results of the project, respond to key evaluation questions and provide insights into the identification of and/or solutions to important problems or issues pertinent to project beneficiaries, UNDP and the GEF, including issues in relation to gender equality and women's empowerment.
- Recommendations should provide concrete, practical, feasible and targeted recommendations directed to the intended users of the evaluation about what actions to take and decisions to make. The recommendations should be specifically supported by the evidence and linked to the findings and conclusions around key questions addressed by the evaluation.
- The TE report should also include lessons that can be taken from the evaluation, including best practices in addressing issues relating to relevance, performance and success that can provide knowledge gained from the particular circumstance (programmatic and evaluation methods used, partnerships, financial leveraging, etc.) that are applicable to other GEF and UNDP interventions. When possible, the TE team should include examples of good practices in project design and implementation.
- It is important for the conclusions, recommendations and lessons learned of the TE report to incorporate gender equality and empowerment of women.

The TE report will include an Evaluation Ratings Table, as shown below:

ToR Table 1: Evaluation Ratings Table for "Catalyzing environmental finance for low-carbon urban development" (PIMS #5646)

Monitoring & Evaluation (M&E)	Rating[3]

M&E design at entry	
M&E Plan Implementation	
Overall Quality of M&E	

[3] Outcomes, Effectiveness, Efficiency, M&E, Implementation/Oversight & Execution, Relevance are rated on a 6-point scale: 6=Highly Satisfactory (HS), 5=Satisfactory (S), 4=Moderately Satisfactory (MS), 3=Moderately Unsatisfactory (MU), 2=Unsatisfactory (U), 1=Highly Unsatisfactory (HU). Sustainability is rated on a 4-point scale: 4=Likely (L), 3=Moderately Likely (ML), 2=Moderately Unlikely (MU), 1=Unlikely (U)

Implementation & Execution	Rating
Quality of UNDP Implementation/Oversight	
Quality of Implementing Partner Execution	
Overall quality of Implementation/Execution	
Assessment of Outcomes	Rating
Relevance	
Effectiveness	
Efficiency	
Overall Project Outcome Rating	
Sustainability	Rating
Financial resources	
Socio-political/economic	
Institutional framework and governance	
Environmental	

Overall Likelihood of Sustainability	

ToR Table 2: TE Ratings Scale

TE Rating Scales	
Ratings for Outcomes, Effectiveness, Efficiency, M&E, Implementation/Oversight, Execution, Relevance	Sustainability ratings:
6 = Highly Satisfactory (HS): exceeds expectations and/or no shortcomings 5 = Satisfactory (S): meets expectations and/or no or minor shortcomings 4 = Moderately Satisfactory (MS): more or less meets expectations and/or some shortcomings 3 = Moderately Unsatisfactory (MU): somewhat below expectations and/or significant shortcomings 2 = Unsatisfactory (U): substantially below expectations and/or major shortcomings 1 = Highly Unsatisfactory (HU): severe shortcomings Unable to Assess (U/A): available information does not allow an assessment	4 = Likely (L): negligible risks to sustainability 3 = Moderately Likely (ML): moderate risks to sustainability 2 = Moderately Unlikely (MU): significant risks to sustainability 1 = Unlikely (U): severe risks to sustainability Unable to Assess (U/A): Unable to assess the expected incidence and magnitude of risks to sustainability

6. TIMEFRAME

The total duration of the TE will be approximately 25 working days over a time period of 15 weeks starting on 1 November 2023 (TBC). The tentative TE timeframe is as follows:

Timeframe	Activity
(9 October 2023)	Application deadline
(25 October 2023)	Selection of the Consultant
(1 November 2023)	Preparatory activities (handover of documentation, etc.)

(15 November 2023) 4 days	Inception Report, including a workplan and evaluation schedule
(30 November 2023) 10 days	Field data collection
(1 December 2023) 1 day	Evaluation debriefing
(31 December 2023) 5 days	Draft TE Report
(31 January 2024)	Report review
(15 February 2024) 5 days	Final report

Options for site visits should be provided in the TE Inception Report.

7. TE DELIVERABLES

#	Deliverable	Description	Timing	Responsibilities
1	TE Inception Report	TE team clarifies objectives, methodology and timing of the TE	No later than 2 weeks before the TE mission: (15 November 2023)	TE team submits Inception Report to Commissioning Unit and project management
2	Presentation	Initial Findings	End of TE mission: (1 December 2023)	TE team presents to Commissioning Unit and project management
3	Draft TE Report	Full draft report (using guidelines on report content in ToR Annex C) with annexes	Within 3 weeks of end of TE mission: (31 December 2023)	TE team submits to Commissioning Unit; reviewed by Regional Technical Advisor (RTA), Project Coordinating Unit, GEF OFP

5	Final TE Report* + Audit Trail	Revised final report and TE Audit trail in which the TE details how all received comments have (and have not) been addressed in the final TE report (See template in ToR Annex H)	Within 1 week of receiving comments on draft report: (15 February 2024)	TE team submits both documents to the Commissioning Unit

*All final TE reports will be quality assessed by the UNDP Independent Evaluation Office (IEO). Details of the IEO's quality assessment of decentralized evaluations can be found in Section 6 of the UNDP Evaluation Guidelines.[4]

[4] Access at: http://web.undp.org/evaluation/guideline/section-6.shtml

8. TE ARRANGEMENTS

The principal responsibility for managing the TE resides with the Commissioning Unit. The Commissioning Unit for this project's TE is UNDP Bosnia and Herzegovina Country Office (CO).

The Commissioning Unit will contract two evaluators, the International Evaluation Consultant and the National Evaluation Consultant and ensure the timely provision of per diems and travel arrangements within the country for the TE team. The Project Team will be responsible for liaising with the TE team to provide all relevant documents, set up stakeholder interviews, and arrange field visits. The Country Office M&E focal point will support the evaluation manager in all steps of the evaluation process and ensure compliance with corporate standards. M&E focal point will review and support preparation of the evaluation ToR, inception report, and draft evaluation report, ensuring all evaluation deliverables and the entire evaluation process meet UNDP requirements, including gender equality and women's empowerment and other cross-cutting issues.

National Consultant:
Terminal Evaluation Terms of Reference (ToR) Template for UNDP-supported GEF-financed projects

Job Title:	National Evaluation Consultant for Terminal Project Evaluation
Project:	Catalyzing Environmental Finance for Low-Carbon Urban Development" (PIMS #5646).
Supervisor:	Raduška Cupać
Location:	Bosnia and Herzegovina
Travel requirement:	Yes
Area:	Resilience and Climate Change
Application deadline:	10 November 2023
Type of Contract:	National
Duration:	25 workdays implemented in the period 1 November 2023-15 February 2024

1. INTRODUCTION

In accordance with United Nations Development Programme (UNDP) and Global Environment Facility (GEF) Monitoring and Evaluation policies and procedures, all full- and medium-sized UNDP-supported GEF-financed projects are required to undergo a Terminal Evaluation (TE) at the end of the project. These Terms of Reference (ToR) set out the expectations for the TE of the full-sized Project "Catalysing Environmental Finance for Low-Carbon Urban Development"(PIMS #5646). The Project followed the Direct Implementation Modality (DIM), where the UNDP Bosnia and Herzegovina Country Office is the implementing Partner (IP). The Project started on the 15 August 2017 and is in the seventh year of implementation. The TE process follows the guidance outlined in the document 'Guidance for Conducting Terminal Evaluations of UNDP-Supported, GEF-Financed Projects'.

2. PROJECT BACKGROUND AND CONTEXT

Background
Bosnia and Herzegovina is an upper middle-income country, with a population of roughly 3.28 million as of 2021 and with the aspiration to become a member of the European Union (EU). The country has a complex governance structure stemming from the Dayton Peace Accords, which ended the 1992–1995 war. In addition to the state-level authorities, the country comprises two entities - the Federation of Bosnia and Herzegovina and Republika Srpska, with Brčko District as autonomous self-government, 10 cantons within the Federation of Bosnia and Herzegovina and 145 local governments.

Despite the positive momentum created in the country by the European Council's December 2022 decision to grant Bosnia and Herzegovina European Union (EU) candidate member status, the overall

country context continues to be marked by political instability, slow pace of structural reforms, slowed-down economic stabilization, deepening poverty and inequalities, divisive political rhetoric and growing outmigration.

The COVID-19 pandemic and the war in Ukraine have engendered a series of interrelated crises that have exponentially increased the complexity of the challenges faced by society, governments and the economy. The war upended energy markets, heightened price volatility and energy insecurity. Higher food and energy prices have affected low-income households more severely, resulting in a slower pace of poverty reduction in the country. Poverty is estimated to have decreased by just 1% in 2022. Inflation surged to a two-decade high at 17.4% in 2023. The unemployment rate in 2023 is 13.3%, particularly high among young people (29%) and women (49,9%).The economy displays a high level of carbon and energy intensity: carbon dioxide emissions currently amount to 25,539 Mt CO2, with the residential sector, energy sector, agriculture, industrial processes and waste as the largest sources of CO2 emission. Women in the country are disproportionally excluded from the control and access to environmental resources and decision-making in the area of energy and environment. In 2021, the country adopted the Sustainable Development Goals (SDGs) Framework in Bosnia and Herzegovina, which sets the sustainable development pathways by 2030. Securing finances for sustainable development remains a major challenge, with Bosnia and Herzegovina facing a financing gap estimated at BAM 0.8 billion annually by 2030 to achieve the SDGs targets. In July 2023, Bosnia and Herzegovina presented its Voluntary National Review.

Bosnia and Herzegovina's economy and society is highly dependent on fossil fuels: electricity generation is 67% based on fossil fuels; the energy sector accounts for almost 70% of the greenhouse gas (GHG) emissions and Bosnia and Herzegovina emits five times as much carbon dioxide as the European Union average. The coal for electricity and heat energy comes from 14 major coal mines across Bosnia and Herzegovina - highly dependent on the coal economy, which together with coal-based power plants employ more than 17,000 people. 99,6 % of the population of Bosnia and Herzegovina is exposed to PM2.5 air pollution and that about 3,300 people die prematurely every year because of exposure to ambient PM2.5 air pollution in the country. New carbon taxation regulatory mechanisms within the European Union are estimated to cause 22% drop in export and 2,461 laid off workers only in the metal industry in Bosnia and Herzegovina. This will further raise poverty and inequalities due to the low-carbon transition negative impact on economy, carbon-intensive industries and communities dependent on them. The draft national energy and climate plan (NECP) for Bosnia and Herzegovina until 2030 outlines a strategy that includes the decommissioning of coal power plants with a combined capacity of 410 MW and no plans for new coal projects. Instead, some existing coal-fired facilities would be transitioned to biomass. This shift in energy strategy is driven by concerns about environmental impact, the aging infrastructure of coal-fired plants, and the country's commitment to align with EU standards as it aspires for EU membership. Numerous initiatives have been launched so far to harness this clean energy source. Wind and solar energy projects are gaining traction, supported by government incentives and regulatory frameworks designed to foster their growth. With support by UNDP and the Global Environment Facility, the Energy Service Companies (ESCO) model in Bosnia and Herzegovina has been introduced as a breakthrough, enabling the development and delivery of energy services with reduced financial risk. The ESCO model is recognized in the EU as an important means of mobilizing private capital, as well as a job-

creation opportunity. Nonetheless, Bosnia and Herzegovina faces challenges in terms of enhancing nationwide cooperation and coordination, as well as improving the fragmented and inconsistent legislative and regulatory framework governing the energy sector. The transition towards renewable energy sources, improvements in energy efficiency, and alignment with EU standards represent positive strides forward. However, concerted efforts will be necessary to address the aforementioned challenges and to position the country's energy sector for a sustainable and environmentally friendly future.

About the project

Catalyzing Environmental Finance for Low-carbon Urban Development (URBANLED) Project is financially supported by the Global Environment Facility (GEF) and implemented by the United Nations Development Programme (UNDP) in Bosnia and Herzegovina. The total value of the project is USD 44,420,627, consisting of GEF Trust Fund financing in the amount of USD 2,370,000, parallel co-financing from UNDP in the amount of USD 4,500,000, and government funding in the amount of USD 37,550,627.

The overall objective of the Project is to leverage investment for transformational shift towards low-carbon urban development in Bosnia and Herzegovina thereby promoting safer, cleaner, and healthier cities and reducing urban GHG emissions.

The project works simultaneously across different sectors and with multiple stakeholders in both the private and public spheres, focusing on the following four components:
Component 1. Innovative Financing Mechanism for Implementation of Low-Carbon Urban Development Concept (LCUD) addresses the identified financial barriers by strengthening the EFs' capacity to finance infrastructural LCUD projects. Through this component, the Project contributes to the following outcomes:

Outcome 1.1: Strengthened public capacities to programme and monitor environmental finance for LCUD.
Outcome 1.2: Increased and diversified sources and modalities of public investment in LCUD.

Component 2 Low-carbon public facilities and utilities addresses the municipalities' lack of capacity to prepare and implement infrastructural LCUD projects in public buildings and utilities. Through this component, the Project contributes to the following outcomes:
Outcome 2.1: Strengthened capacities of municipal managers, companies and utilities to monitor resources use, prepare and implement feasible infrastructural LCUD projects.
Outcome 2.2: Reduced GHG emissions from pilot investment.

Component 3 Low-carbon waste management and logistics (transport) addresses identified shortcomings in municipal capacities for LCUD in the waste management and logistic sector. Through this component, the Project contributes to the following outcomes:
Outcome 3.1: Reduced GHG emissions from improved waste management system as a result of waste minimization.
Outcome 3.2: Reduced GHG emissions from improved waste management system as a result of waste collection route optimization.

Component 4 National and sector policies, institutional coordination and awareness raising on LCUD addresses gaps in the enabling environment for LCUD at state and entity levels by promoting the adoption and supporting enforcement of essential policies and regulations, institutional coordination (vertical and horizontal) among relevant public authorities, and providing targeted capacity building and training support to relevant authorities. Through this component, the Project contributes to the following outcomes:
Outcome 4.1: LCUD-related policies adopted and institutional coordination strengthened.
Outcome 4.2: Increased awareness of urban dwellers regarding LCUDs.

A detailed outline of the Project Result Framework, its outcomes and outputs is available in Annex A of the ToR.

The Project is aligned with and contributes to the Agenda 2030 and the SDGs, primarily SDG 7: Affordable and clean energy - Ensure access to affordable, reliable, sustainable and modern energy for all; SDG 11: Sustainable cities and communities – Make cities and human settlements inclusive, safe, resilient and sustainable; SDG 13: Climate action - Take urgent action to combat climate change and its impacts, as well as is aligned with the SDG Framework in Bosnia and Herzegovina, particularly its "Smart Growth" development pathway.
In addition to government institutions and civil servants, the beneficiaries of the Project are in both the public and private sectors, including the general public, vulnerable groups, workers, educators, NGOs. Target groups also include utility companies in Bosnia and Herzegovina dealing with waste management.

The Project is implemented in partnership with Ministry of Foreign Trade and Economic Relations of Bosnia and Herzegovina, Ministry of Spatial Planning, Civil Engineering and Ecology of Republika Srpska, Ministry of Environment and Tourism of the Federation of Bosnia and Herzegovina, Environmental Fund of the Federation of Bosnia and Herzegovina, Environmental Protection and Energy Efficiency Fund of Republika Srpska.

3. TE PURPOSE & OBJECTIVES

Purpose

This TE will assess the achievement of the Project results and outcomes (as per the Project Document and Results Framework) to draw lessons to improve sustainability of benefits from this project and aid in the overall enhancement of UNDP programming. The Evaluation findings will also be used to promote accountability and transparency of the Project's overall performance and work.

The Evaluation will review all interventions implemented under the Project and their contribution to change triggered around low-carbon urban development in Bosnia and Herzegovina and identify the factors that promote or hinder their achievement as important feedback into ongoing or future decision making, including for adapting successful interventions to suit changing context.

Objective

The TE of the Project "Catalyzing Environmental Finance for Low-Carbon urban Development" (PIMS #5646), will have the following objectives:

- Assess the overall Project progress vis-à-vis the Result Framework based on data, qualitative information and evidence on results and identify critical gaps or delays;
- Establish the relevance and coherence, effectiveness, efficiency, performance, and success or failures of the project, including the sustainability of results and the project exit strategies;
- Assess external environment and risks, such as crisis caused by the pandemic, as well as internal, including weaknesses in programme design, management and implementation, human resource skills, and resource
- Engage all relevant stakeholders (institutions, state, entity and cantonal ministries, local governments, the international community, etc.) in structured conversations, which will enable collective insights and distilling of key lessons learned in relation to (signals of) transformative change induced by the Project, mistakes, as well as important cross-cutting issues, such as innovation, gender equality and leaving no one behind;
- Use different level analysis to generate understanding of change processes and assess how this change was made and what specific contribution did the Project make to the change;
- Formulate strategic recommendations for consideration by the Project owners and its partners (Project Board, UNDP, GEF and other relevant stakeholders), towards more effective Project implementation in the future, or adjustments, as needed.

4. TE APPROACH & METHODOLOGY

The TE will be implemented in line with the "Guidance for Conducting Terminal Evaluations of UNDP-Supported, GEF-Financed Projects" and the "United Nations Guidelines on Integrating Human Rights and Gender Equality in Evaluations". The TE report must provide evidence-based information that is credible, reliable and useful.

The TE will be conducted by the TE team composed of an International Evaluation Consultant (Evaluation Team Leader) and a National Evaluation Consultant. The National Evaluation Consultant will bear responsibility for providing support to the Evaluation Team Leader in conducting the TE, in line with the evaluative approaches/ methodologies agreed and proposed in the Evaluation Inception Report.

In providing support to the Evaluation Team Leader, the National Evaluation Consultant is expected to follow a participatory and consultative approach ensuring close engagement with the Project Team, government counterparts (the GEF Operational Focal Point), Implementing Partners, the UNDP Country Office(s), the Regional Technical Advisor, direct beneficiaries and other stakeholders. The specific design and methodology for the TE should emerge from consultations between the TE team and relevant stakeholders regarding what is appropriate and feasible for meeting the evaluation purpose and objectives and answering the evaluation questions, given limitations of budget, time and data.

The TE methodology should employ innovating approaches, relevant quantitative, qualitative or combined methods to conduct the Evaluation, including data triangulation based on diverse ecosystem of evidence, using gender sensitive data collection and analytical methods and tools applicable in the concrete case. Limitations to the chosen approach/methodology and methods shall be made explicit by the Evaluation team and the consequences of these limitations discussed in the proposed methodology.

The National Evaluation Consultant is expected to support the Evaluation Team Leader throughout the evaluation process, with careful consideration of these Terms of References. In cases where sensitive or confidential issues are to be addressed in the evaluation, the Evaluation Team should ensure an evaluation design that do not put informants and stakeholders at risk during the data collection phase or the dissemination phase.
Standard evaluation methodology would suggest but not limit the evaluation to the following data collecting methods:

- Desk review. The National Evaluation Consultant will support the Evaluation Team Leader in reviewing all relevant sources of information including documents prepared during the preparation phase (i.e. PIF, UNDP Initiation Plan, UNDP Social and Environmental Screening Procedure/SESP) the Project Document, project reports including annual PIRs, project budget revisions, lesson learned reports, national strategic and legal documents, and any other materials that the team considers useful for this evidence-based evaluation. The Evaluation team will review the baseline and midterm GEF focal area Core Indicators/Tracking Tools submitted to the GEF at the CEO endorsement and midterm stages and the terminal Core Indicators/Tracking Tools that must be completed before the TE field mission begins. An extensive list of documents for desk review is provided in Annex B.
- Qualitative insights will be generated through interactive workshops and conversations with all relevant stakeholders, to generate insights, feedback and recommendations around the key questions suggested to drive the Evaluation. The Evaluation team is expected to leverage interactive tools (such as “the most significant change”, visual tools / cards/ creative canvases to capture insights, progress and suggestions, etc.) to unleash creativity and generate valuable insights from partners.
- Stakeholder involvement can also include interviews with stakeholders who have project responsibilities, including but not limited to Ministry of Foreign Trade and Economic Relations of Bosnia and Herzegovina, Ministry of Spatial Planning, Civil Engineering and Ecology of Republika Srpska, Ministry of Environment and Tourism of the Federation of Bosnia and Herzegovina, Environmental Fund of the Federation of Bosnia and Herzegovina, Environmental Protection and Energy Efficiency Fund of Republika Srpska, partner local governments, executing agencies, senior officials and task team/component leaders, key experts and consultants in the subject area, Project Board, project beneficiaries, academia, local government and CSOs, etc.
- The TE team is expected to conduct field visits to the following cities and municipalities: Sarajevo, Banja Luka, Gradiška, Srbac, Travnik, Trebinje. It may consider spot checks in the following project sites: ESCO public lightening systems in Srbac, and Bratunac; Ministry of Spatial Planning, Civil Engineering and Ecology of Republika Srpska in Banja Luka; Landfill "Obodina"; waste management center in Trebinje, ESCO public buildings in Sarajevo, Busovaca, Gradiska and Vitez, Ministry of Education, Science, Youth, Culture and Sports of Central Bosnia Canton etc.

• The National Evaluation Consultant will support the Evaluation Team Leader in preparation and administration of a simple, gender sensitive questionnaire/survey to gain structured feedback and insights from all stakeholders and groups who benefits from the Project. The survey will be distributed via digital (SurveyMonkey) tools and if needed – in paper to ensure equal access to all.

The final methodological approach including schedule of meetings, interviews or field visits as well as sampling, data and analysis methods must be clearly outlined in the TE Inception Report[1] and be fully discussed and agreed between UNDP, stakeholders and the TE team. The final TE report must describe the full evaluation approach taken and the rationale for the approach making explicit the underlying assumptions, challenges, strengths and weaknesses about the methods and approach of the evaluation.

The total duration of the assignment is 25 workdays, implemented in the period November 2023– February 2024.

5. DETAILED SCOPE OF THE TE

The TE will assess the entire Project. It will investigate the extent to which the Project's outcomes and outputs have been achieved since the beginning of the Project on 1 December 2017 and likelihood for their full achievement by the end of the Project on 1 June 2024.

The Findings section of the TE report will cover the topics listed below. A full outline of the TE report's content is provided in the Terms of Reference, Annex C.

The asterisk "(*)" indicates criteria for which a rating is required.

Findings

i. Project Design/Formulation

- National priorities and country driven-ness
- Theory of Change
- Gender equality and women's empowerment
- Social and Environmental Standards (Safeguards)
- Analysis of Results Framework: project logic and strategy, indicators
- Assumptions and Risks
- Lessons from other relevant projects (e.g. same focal area) incorporated into project design
- Planned stakeholder participation
- Linkages between project and other interventions within the sector
- Management arrangements

ii. Project Implementation

- Adaptive management (changes to the project design and project outputs during implementation)

• Actual stakeholder participation and partnership arrangements
• Project Finance and Co-finance
• Monitoring & Evaluation: design at entry (*), implementation (*), and overall assessment of M&E (*)
• Implementing Agency (UNDP) (*) and Executing Agency (*), overall project oversight/implementation and execution (*)
• Risk Management, including Social and Environmental Standards (Safeguards)

iii. Project Results

• Assess the achievement of outcomes against indicators by reporting on the level of progress for each objective and outcome indicator at the time of the TE and noting final achievements
• GHG emission reductions accompanied with verification of results and assumptions
• Assess the achievement of final targets set in the GEF indicators/tracking tools
• Relevance (*), Effectiveness (*), Efficiency (*) and overall project outcome (*)
• Sustainability: financial (*) , socio-political (*), institutional framework and governance (*), environmental (*), overall likelihood of sustainability (*)
• Country ownership
• Gender equality and women's empowerment
• Cross-cutting issues (poverty alleviation, improved governance, climate change mitigation and adaptation, disaster prevention and recovery, human rights, capacity development, South-South cooperation, knowledge management, volunteerism, etc., as relevant)
• GEF Additionality
• Catalytic Role / Replication Effect
• Lessons learned and recommendations
• Progress to impact

Main Findings, Conclusions, Recommendations and Lessons Learned

• The TE team will include a summary of the main findings of the TE report. Findings should be presented as statements of fact that are based on analysis of the data.
• The section on conclusions will be written in light of the findings. Conclusions should be comprehensive and balanced statements that are well substantiated by evidence and logically connected to the TE findings. They should highlight the strengths, weaknesses and results of the project, respond to key evaluation questions and provide insights into the identification of and/or solutions to important problems or issues pertinent to project beneficiaries, UNDP and the GEF, including issues in relation to gender equality and women's empowerment.
• Recommendations should provide concrete, practical, feasible and targeted recommendations directed to the intended users of the evaluation about what actions to take and decisions to make. The recommendations should be specifically supported by the evidence and linked to the findings and conclusions around key questions addressed by the evaluation.
• The TE report should also include lessons that can be taken from the evaluation, including best practices in addressing issues relating to relevance, performance and success that can provide knowledge gained

from the particular circumstance (programmatic and evaluation methods used, partnerships, financial leveraging, etc.) that are applicable to other GEF and UNDP interventions. When possible, the TE team should include examples of good practices in project design and implementation.
• It is important for the conclusions, recommendations and lessons learned of the TE report to incorporate gender equality and empowerment of women.

The TE report will include an Evaluation Ratings Table, as shown below:
ToR Table 2: Evaluation Ratings Table for "Catalyzing environmental finance for low-carbon urban development" (PIMS #5646)

Monitoring & Evaluation (M&E)	Rating[2]
M&E design at entry	
M&E Plan Implementation	
Overall Quality of M&E	
Implementation & Execution	Rating
Quality of UNDP Implementation/Oversight	
Quality of Implementing Partner Execution	
Overall quality of Implementation/Execution	
Assessment of Outcomes	Rating
Relevance	
Effectiveness	
Efficiency	
Overall Project Outcome Rating	
Sustainability	Rating
Financial resources	
Socio-political/economic	
Institutional framework and governance	
Environmental	
Overall Likelihood of Sustainability	

6. TIMEFRAME

The total duration of the TE will be approximately 25 working days over a time period of 15 weeks starting on 1 November 2023 (TBC). The tentative TE timeframe is as follows:

Timeframe	Activity
(10 November-October 9 2023)	Application deadline
(15 November-December 1 2023)	Selection of the Consultant
(17 November 2023-January 3 2024)	Preparatory activities (handover of documentation, etc.)
(21 November 2023-January 12 2024) 4 days	Inception Report, including a workplan and evaluation schedule
(31 November 2023-January 29 2024) 10 days	Field data collection
(2 December 2023-January 31 2024) 1 day	Evaluation debriefing

(1 January 2024-February 15 2024) 5 days	Draft TE Report
(31 January 2024-February 15 2024)	Report review
(15 February 2024-February 22 2024) 5 days	Final report

Options for site visits should be provided in the TE Inception Report.

7. TE DELIVERABLES

#	Deliverable	Description	Timing	Responsibilities
1	TE Inception Report	TE team clarifies objectives, methodology and timing of the TE	No later than 2 weeks before the TE mission: (21 November 2023-January 12 2024)	TE team submits Inception Report to Commissioning Unit and project management
2	Presentation	Initial Findings	End of TE mission: (2 December 2023-January 22 2024)	TE team presents to Commissioning Unit and project management
3	Draft TE Report	Full draft report (using guidelines on report content in ToR Annex C) with annexes	Within 3 weeks of end of TE mission: (1 January-February 92024)	TE team submits to Commissioning Unit; reviewed by Regional Technical Advisor (RTA), Project Coordinating Unit, GEF OFP
4	Final TE Report* + Audit Trail	Revised final report and TE Audit trail in which the TE details how all received comments have (and have not) been addressed in the final TE report (See template in ToR Annex H)	Within 1 week of receiving comments on draft report: (15 February-February 22 2024)	TE team submits both documents to the Commissioning Unit

*All final TE reports will be quality assessed by the UNDP Independent Evaluation Office (IEO). Details of the IEO's quality assessment of decentralized evaluations can be found in Section 6 of the UNDP Evaluation Guidelines.[3]

8. TE ARRANGEMENTS

The principal responsibility for managing the TE resides with the Commissioning Unit. The Commissioning Unit for this project's TE is UNDP Bosnia and Herzegovina Country Office (CO).

The Commissioning Unit will contract two evaluators, the International Evaluation Consultant and the National Evaluation Consultant and ensure the timely provision of per diems and travel arrangements within the country for the TE team. The Project Team will be responsible for liaising with the TE team to provide all relevant documents, set up stakeholder interviews, and arrange field visits.

The Country Office M&E focal point will support the evaluation manager in all steps of the evaluation process and ensure compliance with corporate standards. M&E focal point will review and support preparation of the evaluation ToR, inception report, and draft evaluation report, ensuring all evaluation deliverables and the entire evaluation process meet UNDP requirements, including gender equality and women's empowerment and other cross-cutting issues.

9. TE TEAM COMPOSITION AND COMPETENCIES

The evaluation will be conducted by the Evaluation Team composed of an International Evaluation Consultant/Evaluation Team Leader (with experience and exposure to project and programme evaluations in relevant and other regions and globally) and National Evaluation Consultant, to provide support and bridge the language barriers.

The Evaluation Team Leader will lead the evaluation process and decide on planning and distribution of the evaluation workload and tasks. She/he will design and implement the evaluation process and will closely collaborate with the National Evaluation Consultant.

The National Evaluation Consultant will bear responsibility for providing support to the Evaluation Team Leader in conducting the TE. This entails: providing support in designing the evaluation process according to this terms of reference; preparing the Evaluation Inception Report; undertaking a rigorous desk review; gathering data from different sources of information; analyzing, organizing and triangulating the collected information; responding to comments and factual corrections from stakeholders and incorporating them, as appropriate, in subsequent versions; and making briefs and presentations ensuring the evaluation findings, conclusions and recommendations are communicated in a coherent, clear and understandable manner.

Both, the Evaluation Team Leader and National Evaluation Consultant will report to the Evaluation Manager appointed by UNDP, who will oversee and support the overall evaluation process. In addition, an evaluation reference group will be formed to provide critical and objective inputs throughout the evaluation process to strengthen the quality of the evaluation. The Country Office Senior Management will approve the evaluation report. UNDP will support the implementation of meetings. An updated stakeholder list with contact details (phone and email) will be provided by the Country Office to the evaluation team.

COMPETENCIES

The selection of consultants will be aimed at maximizing the overall "team" qualities in the areas indicated below, for the National Evaluation Consultant the qualification, experience, and technical expertise and competencies of the applicants will be evaluated using the criteria indicated below; thus, it is important that the relevant expertise and experience are highlighted in the applications. The overall assessment rating is out of 100.

Core competencies

Demonstrates professional competence to meet responsibilities and post requirements and is conscientious and efficient in meeting commitments, observing deadlines and achieving results;
Results-Orientation: Plans and produces quality results to meet established goals, generates innovative, practical solutions to challenging situations;
Communication: Excellent communication skills, including the ability to convey complex concepts and recommendations, both orally and in writing, in a clear and persuasive style tailored to match different audiences;
Team work: Ability to interact, establish and maintain effective working relations with a culturally diverse team;
Client orientation: Ability to establish and maintain productive partnerships with national partners and stakeholders and pro-activeness in identifying of beneficiaries and partners' needs and matching them to appropriate solutions.
Required qualifications for the Evaluation Consultant
Education
• Advanced degree in natural resources management, water resources management, natural sciences, environmental management, environment, development studies, urbanization, urban development or other closely related field or other closely related field;
Experience
• At least 5 years of extensive project/programme review and evaluation expertise and experience, with evaluations in the area of climate change and energy management;
• Proven knowledge and experience in design and application of qualitative and quantitative data and insights collecting tools attuned to complex changing context and innovative ways of working;
• Experience in the evaluation of GEF/GCF financed programmes/projects is an asset;
• Project monitoring or implementation experience in UN agencies;
• Having conducted 3 to 5 evaluations, assessments, research or review of development projects, energy efficiency, renewable energy, sustainable finance, resource efficiency, environment or climate change projects/programmes or thematic areas either as team leader or sole evaluator;
• Relevant experience in Bosnia and Herzegovina or RBEC region;
• System thinking capability and strategic advice in development context;
• Excellent analytical skills and ability to distil strategic findings and patterns in a complex development setting;
• Proven ability to integrate gender, leave no one behind and other cross-cutting aspects in data and insights collecting tools and to reflect those in analysis, conclusions, and recommendations.
Language
• Fluency in written and spoken English.
• Fluency in languages of Bosnia and Herzegovina.

10. EVALUATOR ETHICS

The Project's TE team will be held to the highest ethical standards and is required to sign a code of conduct upon acceptance of the assignment. This evaluation will be conducted in accordance with the principles outlined in the UNEG 'Ethical Guidelines for Evaluation'. The National Evaluation Consultant must safeguard the rights and confidentiality of information providers, interviewees and stakeholders through measures to ensure compliance with legal and other relevant codes governing collection of data and reporting on data. The National Evaluation Consultant must also ensure security of collected information before and after the evaluation and protocols to ensure anonymity and confidentiality of sources of information where that is expected. The information knowledge and data gathered in the evaluation process must also be solely used for the evaluation and not for other uses without the express authorization of UNDP and partners.

The evaluator(s) cannot have participated in the project preparation, formulation and/or implementation (including the writing of the project document), must not have conducted this project's Mid-Term Review and should not have a conflict of interest with the project's related activities.

11. DURATION OF THE WORK

The total duration of the TE will be approximately 25 working days over a time period of 15 weeks, starting on 17 November 2023 and shall not exceed five months from when the TE team is hired. The tentative TE timeframe is as follows:

- (10 November-October 9 2023): Application closes
- (15 November-December 15 2023): Selection of TE Team
- (17 November-January 3 20232024): Data sharing with the TE team (handover of project documents)
- (21 November 2023-January 7 2024) 4 days (recommended 2-4): Document review and preparing
- (21 November 2023-January 12 2024): TE Inception Report approved by the evaluation manager
- (31 November 2023-January 29 2024) 10 days: Field data collection
- (2 December 2023-January 31 2024) 1 days: Evaluation debriefing
- (1 January-February 9 2024) 5 days: Draft TE Report Evaluation debriefing
- (31 January-February 15 2024): Report review by UNDP Country Office, RTA, Evaluation reference group
- (15 February-February 22 2024) 5 days: Final Report finalization and submission to UNDP

12. DUTY STATION

Travel:

- Travel will be required within Bosnia and Herzegovina during the TE mission;
- Consultants are required to comply with the UN security directives set forth under: https://dss.un.org/dssweb/

13. PAYMENT SCHEDULE

- 20% payment upon satisfactory delivery of the final TE Inception Report and approval by the Commissioning Unit
- 40% payment upon satisfactory delivery of the draft TE report to the Commissioning Unit

• 40% payment upon satisfactory delivery of the final TE report and approval by the Commissioning Unit and RTA (via signatures on the TE Report Clearance Form) and delivery of completed TE Audit Trail

Criteria for issuing the final payment of 40%[4]:
• The final TE report includes all requirements outlined in the TE TOR and is in accordance with the TE guidance.
• The final TE report is clearly written, logically organized, and is specific for this project (i.e. text has not been cut & pasted from other TE reports).
• The Audit Trail includes responses to and justification for each comment listed.

14. APPLICATION PROCESS

1. Scope of Price Proposal and Schedule of Payments

Financial Proposal:
• Financial proposals must be "all inclusive" and expressed in a lump-sum for the total duration of the contract. The term "all inclusive" implies all cost (professional fees, travel costs, living allowances etc.);
• For duty travels, the UN's Daily Subsistence Allowance (DSA) rates are (fill for all travel destinations), which should provide indication of the cost of living in a duty station/destination (Note: Individuals on this contract are not UN staff and are therefore not entitled to DSAs. All living allowances required to perform the demands of the ToR must be incorporated in the financial proposal, whether the fees are expressed as daily fees or lump sum amount.)
• The lump sum is fixed regardless of changes in the cost components.

2. Recommended Presentation of Proposal

a) Letter of Confirmation of Interest and Availability using the template provided by UNDP;
b) CV and a Personal History Form (P11 form);
c) Brief description of approach to work/technical proposal of why the individual considers him/herself as the most suitable for the assignment, and a proposed methodology on how they will approach and complete the assignment; (max 1 page)
d) Financial Proposal that indicates the all-inclusive fixed total contract price and all other travel related costs (such as flight ticket, per diem, etc.), supported by a breakdown of costs, as per template attached to the Letter of Confirmation of Interest template. If an applicant is employed by an organization/company/institution, and he/she expects his/her employer to charge a management fee in the process of releasing him/her to UNDP under Reimbursable Loan Agreement (RLA), the applicant must indicate at this point, and ensure that all such costs are duly incorporated in the financial proposal submitted to UNDP.
Incomplete applications will be excluded from further consideration.

3. Recommended Presentation of Proposal

Only those applications which are responsive and compliant will be evaluated. Offers will be evaluated according to the Combined Scoring method – where the educational background and experience on similar assignments will be weighted at 70% and the price proposal will weigh as 30% of the total scoring. The applicant receiving the Highest Combined Score that has also accepted UNDP's General Terms and Conditions will be awarded the contract.

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[1] Evaluation Inception Report, UNDP Evaluation Guidelines, pg. 27.

[2] Outcomes, Effectiveness, Efficiency, M&E, Implementation/Oversight & Execution, Relevance are rated on a 6-point scale: 6=Highly Satisfactory (HS), 5=Satisfactory (S), 4=Moderately Satisfactory (MS), 3=Moderately Unsatisfactory (MU), 2=Unsatisfactory (U), 1=Highly Unsatisfactory (HU). Sustainability is rated on a 4-point scale: 4=Likely (L), 3=Moderately Likely (ML), 2=Moderately Unlikely (MU), 1=Unlikely (U)

[3] Access at: http://web.undp.org/evaluation/guideline/section-6.shtml

[4] The Commissioning Unit is obligated to issue payments to the TE team as soon as the terms under the ToR are fulfilled. If there is an ongoing discussion regarding the quality and completeness of the final deliverables that cannot be resolved between the Commissioning Unit and the TE team, the Regional M&E Advisor and Vertical Fund Directorate will be consulted. If needed, the Commissioning Unit's senior management, Procurement Services Unit and Legal Support Office will be notified as well so that a decision can be made about whether or not to withhold payment of any amounts that may be due to the evaluator(s), suspend or terminate the contract and/or remove the individual contractor from any applicable rosters. See the UNDP Individual Contract Policy for further details:
https://popp.undp.org/_layouts/15/WopiFrame.aspx?sourcedoc=/UNDP_POPP_DOCUMENT_LIBRARY/Public/PSU_Individual%20Contract_Individual%20Contract%20Policy.docx&action=default

Annex B: TE Mission Itinerary

Date	Time:	Organization/Institution	Name of representative	Venue
1st Day, Meetings with UNDP and Project Board members (Monday)				
29 – Jan – 2024	09:00	URBANLED Project Team	Mr Aldin Medjedovic, URBANLED Project Manager	Sarajevo
			Ms Dzenana Kadric, Project Assistant	
			Mr Fejsal Corovic, Project Analyst	
			Mr Albin Toljevic, Project Analyst	
			Ms Amra Vranjes, Communication Analyst	
	14:00	Ministry of Foreign Trade and Economic Relations of Bosnia and Herzegovina	Mr Mirza Hujic, Assistant Minister, Sector for water resources, tourism and environmental protection	Sarajevo
			Mr Admir Softic, Assistant Minister, Sector of Energy	Sarajevo
2nd Day, Meetings with Project Board members and UNDP (Tuesday)				
30 – Jan – 2024	09:00	Environmental Protection Fund of the Federation of BiH	Ms Jasmina Kafedzic, Head of the Energy Efficiency Sector	Sarajevo
			Ms Elma Hadzic Ramic, Expert advisor in the field of waste management	
	11:00	Federal Ministry of Environment and Tourism	Ms Almira Kapetanovic, Department for Protection of Air, Ozone Layer, Climate Change and Noise Protection	Sarajevo
	13:00	UNDP Senior Staff	Ms Raduska Cupac, UNDP Sector Leader for Energy and Environment	Sarajevo
	14:00	Ex Project Team Member, URBANLED Project	Ms Senka Mutabdzija Becirovic, Project Manager, UNDP	Sarajevo
3rd Day, Meeting with partner LG representatives and beneficiaries (Wenesday)				
31 – Jan – 202	09:00	Novi Travnik Municipality	Ms Visnja Colic, Expert Advisor for local economic development, economy and entrepreneurship	Novi Travnik
			Ms Svjetlana Tokalic, Director of Vilenica-Cistoca Public Utility Company	

			Mr Branko Brkan, Mayor Assistant	
	10:30	Police Station Vitez	Mr Ratko Bošnjak, Chief of Police	Vitez
	12:00	Ministry of Education, Science, Youth, Culture and of Central Bosnia Canton	Mr Bojan Domic, Minister	Travnik
			Ms Zeljka Peric, Expert Advisor	
	14:00	Secondary School Busovaca	Mr Stipo Kristo, Director, Secondary School Busovaca	Busovača
	14:30	Primary School Busovaca	Mr Slaven Katava, Director, Primary School Busovaca	Busovača
4th Day, Meeting with Project Board members (Thuesday)				
1 – Feb – 2024	11:00	Environmental Protection and Energy Efficiency Fund o RS	Mr Srdjan Todorovic, Director	Banja Luka
	13:00	Ministry of Spatial Planning, Civil Engineering, and Ecology of the RS	Ms Svjetlana Radusin, Assistant Minister for Ecology	Banja Luka
			Mr Milos Jokic, Assistant Minister for coordination of projects and development	
5th Day, Meetings with partner LG representatives and UNDP and URBANLED Project Team (Friday)				
2 – Feb – 2024	09:00	Ministry of education, science, culture and sport of the Zenica-Doboj Canton	Mr Mirza Musija, Minister	Zenica
			Mr Nebojska Vasiljevic, Head of the Department for Economic and Financial Affairs	
	12:00	Follow Up Meeting with UNDP and URBANLED Project Team	Mr Aldin Medjedovic, URBANLED Project Manager	Sarajevo
			Ms Dzenana Kadric, Project Assistant	
			Mr Fejsal Corovic, Project Analyst	
			Mr Albin Toljevic, Project Analyst	
			Ms Amra Vranjes, Communication Analyst	
	12:00	Bratunac Municipality	Mr Lazar Prodanovic, Mayor of Bratunac	Bratunac
			Mr Vjekoslav Stevanovic, Head of the Department for Economy and Development	
6th Day, Online Meetings with projects beneficiaries and ex URBANLED Project team (Monday)				
	14:00 (CET)	City of Gradiska	Mr Darko Vrhovac, Head of the Department for Development and International Projects	ONLINE Meeting

			Mr Bosko Baskalo, Expert Associate	ONLINE Meeting
7th Day, Online Meetings with projects beneficiaries - public and private sector (Tuesday)				
6 – Feb – 2024 (TBC)	11:00 (CET)	Zvornik Municipality	Ms Sanja Bjekovic, Zvornik Municipality	Zvornik
	13:00 (CET)	HQ/BPPS, UNDP	Ms Jana Koperniech, UNDP Regional Advisor	ONLINE Meeting
	14:00 (CET)	City of Trebinje	Ms Jelena Davidovic, Expert Associate for Ecology	ONLINE Meeting
	15:00 (CET)	Chamber of Economy of the Federation Bosnia and Herzegovina	Mr Almin Malisevic, Director of the Industry and Services Sector	ONLINE Meeting
	16:00 (CET)	ESCO Association of the Federation Bosnia and Herzegovina (private sector representatives)	Mr Halil Sulejmanovic, President of the ESCO Association & Consultant at Enova Ltd.	ONLINE Meeting
8th Day, Online Meetings with academia, experts and projects beneficiaries - public and private sector (Wednesday)				
7 – Feb – 2024 (TBC)	12:00 (CET)	Mechanical engineering Faculty, University of Sarajevo	Mr Azrudin Husika, Head of Department of Process Engineering	ONLINE Meeting
	14:00 (CET)	Chamber of Commerce and industry of the RS	Ms Nikolina Dorontic Alibabic, Center for Project Management and Analysis	ONLINE Meeting
			Mr Bosko Borojevic, Secretary of the Energy Association	
	15:00 (CET)	ESCO Association of the RS (private sector representatives)	Ms Srdjana Cebic, Chairwoman of the ESCO Association & Office Coordinator at Roaming Networks Ltd.	ONLINE Meeting

Annex C: List of Persons Interviewed

This is a listing of stakeholders contacted in BiH (unless otherwise noted) during the Terminal Evaluation period only. Stakeholders were chosen on the basis of their specific role and knowledge of the Project's activities. This included the gender perspective of the LCUD project, where 19 out of the 43 interviewees were female. The Evaluation Team regrets any omissions to this list.

#	Name	Designation	Agency/ Organization	In person/ Virtual
1.	Ms Raduska Cupac	Energy and Environment Sector Leader (GEF Project oversight)	UNDP	In person
2.	Mr Aldin Medjedovic	GEF Project Manager	UNDP	In person
3.	Ms Jana Koperniech	UNDP Energy, Transport & Infrastructure/ Regional Advisor	UNDP	Virtual
4.	Ms Amra Zorlak	M&E Analyst	UNDP	In person
5.	Mr Albin Toljevic	Project Analyst	UNDP	In person
6.	Mr Fejsal Corovic	Project Analyst	UNDP	In person
7.	Ms Dzenana Kadric	Project Assistant	UNDP	In person
8.	Mr Eldar Hadzibegovic	Project Assistant	UNDP	In person
9.	Ms Amra Vranjes	Communication Analyst	UNDP	In person
10.	Ms Senka Mutabdzija Becirovic,	Project Manager/Ex UrbanLED project team member	UNDP	In person
11.	Mr Admir Softic	Assistant Minister	The BiH Ministry of Foreign Trade and Economic Relations (MoFTER)	In person
12.	Mr Mirza Hujic	Assistant Minister, Sector for water resources, tourism and environmental protection	The BiH Ministry of Foreign Trade and Economic Relations (MoFTER)	In person
13.	Ms Svjetlana Radusin	Assistant Minister for Ecology	The Ministry of Spatial Planning, Civil Engineering and Ecology (MSPCE)	In person
14.	Ms Almira Kapetanovic	Department for Protection of Air, Ozone Layer, Climate Change and Noise Protection	The Ministry of Physical Planning of the FBiH (MPP FBiH)	In person
15.	Mr Lazar Prodanovic	Mayor of Bratunac	Bratunac Municipality	In person
16.	Mr Vjekoslav Stevanovic	Head of the Department for Economy and Development	Bratunac Municipality	In person
17.	Mr Radovan Jelisavcic	IT Expert	Bratunac Municipality	In person
18.	Mr Aleksandar Stepanovic	Public Lightening Audit Expert	Bratunac Public Energy Company	In person
19.	Ms Jasmina Kafedzic	Head of the Department of Energy Efficiency and PIU	The FBiH Environmental Protection Fund (EF FBiH)	In person

20.	Ms Elma Kapetanovic	Professional advisor	The FBiH Environmental Protection Fund (EF FBiH)	In person
21.	Mr Srdjan Todorovic	The Director	Environmental Protection and Energy Efficiency Fund of the Republic of Srpska	In person
22.	Mr Darko Vrhovac	Head of the Department for Development and International Projects	City of Gradiska	Virtual
23.	Mr Bosko Baskalo	Expert Associate	City of Gradiska	Virtual
24.	Ms Marina Vukotić	Head of the Department for Environmental Protection and Energy Efficiency	City of Gradiska	Virtual
25.	Ms Sanja Bjekovic	Professional Expert for Environmental Protection	City of Zvornik	In person
26.	Mr Vladan Mladenovic	Head of the Business Unit	Zvornik Utility Company	In person
27.	Mr Velimir Surbat	Head of the Business Unit	Regional Waste Utility Company Zvornik	In person
28.	Ms Jelena Davidovic	Expert Associate for Ecology	City of Trebinje	Virtual
29.	Mr Almin Malisevic	Director of the Industry and Services Sector	Chamber of Economy of the Federation Bosnia and Herzegovina	Virtual
30.	Ms Seldzana Muslic	Secretary of the ESCO Association & Consultant at Enova Ltd.	ESCO Association of the Federation Bosnia and Herzegovina (CSOs and private sector representatives)	Virtual
31.	Mr Bosko Borojevic	Secretary of the Energy Association and ESCO representative	Chamber of Commerce and industry of the Republic of Srpska ESCO Association of the Republic of Srpska (CSOs, private sector representatives)	Virtual/ Telephone
32.	Ms Nikolina Dorontic Alibabic	Center for Project Management and Analysis	Chamber of Commerce and industry of the Republic of Srpska	Telephone
33.	Ms Srdjana Cebic	Chairwoman of the ESCO Association & Office Coordinator at Roaming Networks Ltd.	ESCO Association of the Republic of Srpska (CSOs, private sector representatives)	Virtual/ Telephone
34.	Mr Azrudin Husika	Head of Department of Process Engineering	Mechanical engineering Faculty, University of Sarajevo	Virtual
35.	Mr Nebojska Vasiljevic	Head of the Department for Economic and Financial Affairs	Ministry of education, science, culture and sport of the Zenica-Doboj Canton	In person
36.	Ms Visnja Colic	Expert Advisor for local economic development, economy and entrepreneurship	Novi Travnik Municipality	In person

37.	Ms Svjetlana Tokalic	Director of Vilenica-Cistoca Public Utility Company	Novi Travnik	In person
38.	Mr Branko Brkan	Mayor Assistant	Novi Travnik	In person
39.	Mr Bojan Domic	Minister	Ministry of Education, Science, Youth, Culture and of Central Bosnia Canton Travnik	In person
40.	Ms Zeljka Peric	Expert Advisor	Ministry of Education, Science, Youth, Culture and of Central Bosnia Canton Travnik	In person
41.	Mr Ratko Bošnjak	Chief of Police	Police Station in Vitez	In person
42.	Mr Stipo Kristo	Director, Secondary School Busovaca	Secondary School Busovaca	In person
43.	Mr Slaven Katava	Director, Primary School Busovaca	Primary School Busovaca	In person

Annex D: List of documents reviewed

Priority Final RF Matrix for Report Effectiveness Section:

1. The final GEF project results -indicator framework and justification for results by the project team.

Priority Documents:

2. Project Inception workshop final report
3. Original Project Document (ProDoc) in Word format
4. Mid-Term Evaluation (MTE) in Word format
5. GEF Project MTR 'final' inception report (if available)
6. GEF Annual Project Reviews (APRs) and Project Implementation Reports (PIRs)
7. GEF Mid-Term Evaluation Report in Word format.
8. Evaluation TOR in Word format
9. Environmental safeguards document

Priority Lists and Reports:

The PMU is requested to provide the following lists to demonstrate the work the project has accomplished.

8. All annual reports, all quarterly reports and the final reports i.e. last PIR
9. List of current national and regional priorities (relevant policies, laws, frameworks) that the project supported and has changed
10. Ensure comprehensive documentation of the GEF Project Steering Committee (Project Board Meeting Minutes) is provided. Include an overview and summary of major decisions and project-related adaptations agreed upon by partners during implementation.
11. Matrix for final report -List of laws and policies influenced by the project with institutional results summary in narrative
12. Matrix for final report - All GEF project supported Technical and Research Reports (with dates and costs)
13. Matrix for final report - All GEF project supported Outreach and Communications (project brochures, public awareness materials)
14. Final GEF tracking tools (FINAL METTs post MTR - Capacity Development Scorecard and Financial Scorecard)- to be completed by the PMU before you come to country
15. Matrix for final report - List of all GEF project -supported capacity building and learning activities (matrix with venues, dates, participant gender, results, etc.)
16. Matrix for final report and for analysis - List of synergistic ongoing and in the pipeline GEF and or development projects related to same themes, with short explanations

17. Matrix or List of project-supported research, scientific, and policy-related studies (enabling activities)
18. List of actual stakeholder roles and involvement -outlining the role and actual involvement of stakeholders, including project implementing partners and other stakeholders
19. List of names of all project supported staff and consultants attached to the project from inception, including positions and reasons for leaving
20. Table of and narrative explaining gender-related disaggregated results ie involved in activities or trainings
21. Co-financing table–For final report. making up the total expected and all donors contributing to the broader initiative, prepared in the format from the GEF guidelines.

Annex E: Evaluation Question Matrix

Evaluation Criteria Questions	Indicators	Sources	Methodology
Relevance: How does the project relate to the main objectives of the GEF Focal area, and the environment and development priorities at the local, regional and national level?			
- Is the Project and its components addressing the structural challenges in the water sector? -Are there any new activities that are needed and vital for the Project's success? -What should the Project do differently?	The extent to which project design and efforts are aligned and or integrated with the national and local development plans. The extent to which project design and are efforts aligned and or integrated with the GEF and the UNDP strategic plans. Extent to which project design and efforts aligned with GEF and UNFCCC Paris objectives. The extent to which the project design and efforts align with local, regional, and national environment and development priorities Extent to which project design was targeted (ie, gender responsiveness, LNOB)	Documents – Project Formulation and Design documents – Project Inception Report – National policies and strategies – PB meeting minutes – MTR – PIRs – Project document – Stakeholders – PMU – Project designers – Partners (public and private sector) – beneficiaries – CSOs/advocacy groups/community leaders – Experts in the field	Desk review Interviews Survey of target groups
Effectiveness: To what extent have the expected outcomes and objectives of the project been achieved?			
-Is the project meeting its main targets set in the Project Result Framework? Critical gaps, unintended results? -Are there unique Project approaches and innovative solutions? -Is the Project meaningfully focusing on gender equality? -Is the Project truly ensuring no one is left behind? -Which are intended and unintended partnerships and	*Achievement of Stated Targets and Indicators* Percentage of project-specific targets successfully achieved. Adherence to established indicators, measured against baseline and target values. *Promotion of Innovative Financing Partnerships* Number and nature of new partnerships formed for innovative financing during the project.	Documents – Project Formulation and Design documents – Project Inception Report – National policies and strategies – PB meeting minutes – MTR – PIRs – Project document – Stakeholders – PMU	Desk review Interviews Site visits Virtual meetings Survey of target group

networks nurtured by the Project? -What were the main challenges along the way? How were they addressed? -What worked and what did not, and why?	Percentage increase in funding source diversification due to innovative financing partnerships. ***Support for Capacity Building and Institutional, Regulatory Learning*** Number of training sessions conducted for capacity building. Number of stakeholders participating in project sponsored training sessions and meetings (disaggregated by gender) Level of regulatory and institutional knowledge improvement among project stakeholders. ***Impact on Policy and Legal Changes*** Number of policies or laws influenced or changed directly as a result of the project. Degree of alignment between project outcomes and relevant legal or policy modifications. ***Promotion of Gender Equality*** Proportion of project resources allocated to gender-specific initiatives. Improvements in gender-related indicators within the project's scope, such as participation rates or access to resources. ***Monitoring Adequacy*** Percentage completion of scheduled monitoring activities. Level of stakeholder satisfaction with the project's monitoring and reporting mechanisms. Unintended Results and Partnerships: Identification and documentation of unintended project	– Project designers – Partners (public and private sector) – beneficiaries – CSOs/advocacy groups/community leaders – Experts in the field	

	outcomes and their implications. Number and nature of unplanned partnerships established during the project's duration, specifically in areas of innovative financing and policy *Adaptability to major events* Extent to which the project adapted and responded to Covid 19 and or other emerging events like disasters		
Efficiency: Was the project implemented efficiently, in line with international and national norms and standards?			
Have resources (financial, human, technical) been allocated strategically and economically to achieve the Project's results?	*Allocation of Resources According to Project Results* Percentage of allocated resources aligned with the achievement of project results. Analysis of resource allocation patterns to determine their correlation with the success of project outcomes. *Achievement of Significant Structural Changes* Identification and documentation of behavioral, policy, and institutional changes resulting from project intervention. Assessment of the value added by the project to drive significant and sustainable structural changes. *Extent of Co-Financing Beyond Expected Results*	Documents – Project Formulation and Design documents – Project Inception Report – National policies and strategies – PB meeting minutes – MTR – PIRs – Project document (including financial statements) – Stakeholders – PMU – Project designers – Partners (public and private sector) – beneficiaries	Desk review Interviews Site visits Virtual meetings Survey of target group Progress and trend analysis of project allocations and expenditures

	Percentage of co-financing that exceeded initial expectations. Evaluation of the impact of additional co-financing on the overall success of the project.		
Sustainability: To what extent are there financial, institutional, socio-political, and/or environmental risks to sustaining long-term project results?			
-Are Project processes, achievements and approaches owned by its partners? -Are there solid pre-conditions to sustain and "root" Project results and capacity after it ends? -Anticipated risks?	Extent to which project outputs are expected to continue Extent to which policy or institutional structures or plans are in place for continuation of project efforts	Documents – Project Formulation and Design documents – Project Inception Report – National policies and strategies – PB meeting minutes – MTR – PIRs – Project document – Stakeholders – PMU – Project designers – Partners (public and private sector) – beneficiaries – CSOs/advocacy groups/community leaders – Experts in the field	Desk review Interviews Survey of beneficiaries Qualitative data analysis methods: (i.e. Triangulation, Validations, Interpretations, Abstractions)
Impact: Are there indications that the project has contributed to, or enabled progress toward reduced environmental stress and/or improved ecological status?			
-What was the role / added value of UNDP in the implementation so far? -What are signals of positive change that can be attributed to the Project work? -Are there specific aspects that may be considered to ensure the intervention will contribute to system change?	Extent to which UNDP provided essential, unique value to the implementation Extent to which the evidence points toward project contribution to change (positive or negative)	Stakeholders – PMU – Project designers – Partners (public and private sector) – beneficiaries – CSOs/advocacy groups/community leaders – Experts in the field	Interviews Qualitative data analysis methods: (i.e. Triangulation, Validations, Interpretations, Abstractions)
Cross-cutting issues			

Gender equality and women's empowerment: How did the project contribute to gender equality and women's empowerment?			
- To what extent has gender equality and the empowerment of women been mainstreamed in the project design and implementation? - Has the project had any positive or negative effects on gender equality?	Level of achievement of logframe targets for women's participation Extent to which women were meaningfully engaged or involved with the project (design, implementation, etc) Extent to which stakeholders (particularly women) report shifts in women's experiences as a result of the project	Documents – Project Formulation and Design documents – Project Inception Report – National policies and strategies – PB meeting minutes – MTR – PIRs – Project document – Stakeholders – PMU – Project designers – Partners (public and private sector) – beneficiaries – CSOs/advocacy groups/community leaders – Experts in the field	Desk review Interviews Survey of beneficiaries Qualitative data analysis methods: (i.e. Triangulation, Validations, Interpretations, Abstractions)
LNOB: in what ways did the project address and include marginalized and under-served groups?			
- In what ways have marginalized or under-served communities been mainstreamed into the project cycle? -To what extent have marginalized or under-served communities been specifically targeted or impacted by the project?	Extent to which the project was designed to specifically address and include marginalized or under-served communities or groups Extent to which marginalized or under-served communities or groups were engaged in the project cycle (design, implementation, participation, sustainability, etc)	Documents Project Formulation and Design documents Project Inception Report National policies and strategies PB meeting minutes MTR PIRs Project document Stakeholders PMU Project designers Partners (public and private sector) beneficiaries CSOs/advocacy groups/community leaders – Experts in the field	Desk review Interviews Survey of beneficiaries Qualitative data analysis methods: (i.e. Triangulation, Validations, Interpretations, Abstractions)
Innovation: In what ways did innovation play a role in the project achieving its results?			

- In what ways did the project create an enabling environment for innovation? - In what ways were innovative practices catalyzing change?	Extent to which innovation was fostered and promoted Extent to which innovation was inhibited or challenging Extent to which innovative practices contributed to project results	Documents – Project Formulation and Design documents – Project Inception Report – National policies and strategies – PB meeting minutes – MTR – PIRs – Project document – Stakeholders – PMU – Project designers – Partners (public and private sector) – beneficiaries – CSOs/advocacy groups/community leaders – Experts in the field	Desk review Interviews Survey of beneficiaries Qualitative data analysis methods: (i.e. Triangulation, Validations, Interpretations, Abstractions)

Annex F: Questionnaire

Specific groups of questions were developed and applied for each interview group. These questions may include, but are not limited to, the following:

PMU and Senior UNDP Officials:

- Are the Project's objectives and implementation strategies consistent with global, regional and country environmental issues and priorities, considering Green Environment Fund and UN/UNDP Strategic Frameworks, EU accession agenda and Agenda 2030?
- To what extent have the intended results been achieved or are they likely to be achieved by the end of the project? What are the main Project accomplishments?
- Are there any positive changes in the system (or area addressed by the project) that can be attributed to the Project work?
- Which are intended and unintended partnerships and networks nurtured by the Project?
- What were the main challenges along the way? How were they addressed?
- What worked well and what – not, and why?
- Has the project been implemented efficiently, and cost-effectively, and been able to adapt to any changing conditions?
- What were the project management team changes?
- To what extent are project-level monitoring and evaluation systems, reporting, and project communications supporting the project's implementation?
- What would you say has been the specific value-add by UNDP?
- What results from the project do you think will be continued moving forward? Why?
- If you could go back in time and do this project again, knowing what you know now, what would you do differently?

UNDP regional/HQ, GEF regional/HQ staff involved in the project:

- What has been the contribution of partners and other organizations to the outcomes?
- Are there any positive changes in the system (or area addressed by the project) that can be attributed to the Project work?
- Which are intended and unintended partnerships and networks nurtured by the Project?
- What were the main challenges along the way? How were they addressed?
- What worked well and what – not, and why?
- Has the project been implemented efficiently, and cost-effectively?
- What has been the specific value-add by UNDP?

- In what ways was the project able to adapt to any changing conditions thus far on the regional level?
- Has the COVID-19 pandemic affected the LCUD Project implementation and how? Were alternative approaches considered in the course of implementation on the field? What were other potential risks for the Project's efficient implementation?
- If someone asked your advice about designing a similar project, what would you say would be key to include?

Project Board members/the Ministries and the Funds:

- Which regulation was adopted by Bosnia and Herzegovina or the entity level?
- Which policy is adopted/changed?
- Has the co-financing mechanism for interventions, established by the LCUD Project and stakeholders, and applied through project activities been effective and adequate for achieving the project results? Was the ESCO model effective?
- Are there any positive changes in the system (or area addressed by the project) that can be attributed to the Project work?
- Which are intended and unintended partnerships and networks nurtured by the Project?
- What were the main challenges along the way? How were they addressed?
- What worked well and what – not, and why?
- Is the level of ownership by the main stakeholders sufficient to allow for the LCUD Project results to be sustained?
- To what extent are there financial, institutional, socio-economic, and/or environmental risks to sustaining long-term LCUD project results?
- What is the budget of the State/Entity subvention program? How much of it is committed to reducing emissions?
- What would you say has been the specific value-add of UNDP?
- What results from the project do you think will be continued moving forward? Why?
- If someone asked your advice about designing a similar project, what would you say would be key to include?

Local governments and/or local public companies:

- What is the benefit to your local government?
- What specific measures were implemented in the local community?
- How well did the cooperation with the UNDP/GEF Project work?
- Are there any positive changes in the system (or area addressed by the project) that can be attributed to the Project work?
- Which are intended and unintended partnerships and networks nurtured by the Project?
- What were the main challenges along the way? How were they addressed?

- What worked well and what – not, and why?
- How did the UNDP project support your activities?
- For public procurements (Tenders) – procedures, what was the response from the companies? How have the procurement procedures been managed?
- Is the ESCO model adequate for LGs?
- What are the main problems to be solved and what is your recommendation?
- What results from the project do you think will be continued moving forward? Why?

Beneficiaries (with oversampling of women and marginalized groups):

- What is your experience and role with the LCUD project implementation?
- What specific support did the UNDP/GEF Project provide to your organization?
- Are there any positive changes in the system (or area addressed by the project) that can be attributed to the Project work?
- Which are intended and unintended partnerships and networks nurtured by the Project?
- What were the main challenges along the way? How were they addressed?
- What worked well and what – not, and why?
- What should be strengthened in the next phase? What are the weaknesses?
- Is there some specific need for training?
- Is there any additional need for support from the LCUD Project?
- How effective was cooperation with the UNDP Project?
- How effective is EMIS?
- How did the UNDP project support your activities (i.e., green schemes, waste management etc.)?

Online Survey Template

Section 1 of 8

TERMINAL EVALUATION OF THE LCUD PROJECT

Dear ….,
UNDP has commissioned an independent consulting team to conduct the terminal evaluation for the project "Catalyzing Environmental Finance for Low-Carbon Urban Development". Through this evaluation, UNDP seeks to assess the extent to which the project was able to achieve its goals.
In accordance with your planned time and obligations, please take part in the evaluation by completing the following questionnaire. The deadline for filling out the questionnaire is seven (7) days from the date of receipt of the questionnaire.
Thank you in advance,
LCUD Project Terminal Evaluation Team

Section 2 of 8

General information about the participant.
Name and surname (optional):
Gender:
Institution:
Have you participated in the training within the LCUD project?
What is the topic of the training that you participated in within the LCUD project?

Section 3 of 8

SECTION B-RELEVANCE

Please select the appropriate option (only one answer or short text).
B1. Has the LCUD project improved your capacities and increased awareness of alternative financing mechanisms (ESCO) for low-carbon projects?

Section 4 of 8

SECTION C-EFFECTIVENESS

Please select the appropriate option (only one answer or short text).
C1. Are you satisfied with your cooperation with the LCUD project, i.e., Did the cooperation meet your expectations (e.g., in terms of the quality of training);
C2. Did the project have a unique approach or offer innovative solutions, e.g., in the choice of topics, training content, organization of training, etc.?

Section 5 of 8

SECTION D-EFFICIENCY

Please select the appropriate option (only one answer or short text).
D1. Have the resources (financial, human, technical) of the LCUD project been effectively utilized in your company in terms of raising awareness about emission reduction?
D2. Knowing what you know now, are there ways that it could have been improved?

Section 6 of 8

SECTION E-INNOVATION

E1. In what ways did the project encourage innovation? Please specify examples of innovation.

Section 7 of 8

SECTION F-IMPACT

Please select the appropriate option (only one answer or short text).

F1. Have you improved your business due to the new knowledge gained through this project, and how?

Section 8 of 8

SECTION G-GENERAL RECOMMENDATIONS

Recommendations aimed at general quality improvement of GEF/UNDP supported projects.

G1. Please share any final comments or recommendations for future GEF/UNDP projects.

G2. Would you recommend the continuation of similar activities in the future?

Annex G: Co-Financing Table

Source of Co-financing	Name of Co-financer	Type of Co-financing	Investment Mobilized	Amount (in USD)
Donor Agency	GEF	Grant Public Investment	Investment Mobilized	2,055,498.88
Municipalities	Local Governments	Public Investment	Investment Mobilized	484,841.76
Government	Fund for Environmental Protection and Energy Efficiency of the Republic of Srpska	Grant Public Investment	Investment Mobilized	4,363,471.36
Government	Fund for Environmental Protection of Federation of Bosnia and Herzegovina	Grant Public Investment	Investment Mobilized	19,597,163.94
Government	Ministry of Spatial Planning, Civil Engineering and Ecology of the Republic of Srpska	Grant Public Investment	Investment Mobilized	57,273.77
UNDP	UNDP	Grant In-Kind Public investment	Investment Mobilized	4,500,000.00
Total Co-financing				29,002,750.83
Total				31,058,249.71

Annex H: TE Rating Scales

Ratings for Outcomes, Effectiveness, Efficiency, M&E, Implementation/Oversight, Execution, Relevance	Sustainability ratings
6 = Highly Satisfactory (HS): exceeds expectations and/or no shortcomings 5 = Satisfactory (S): meets expectations and/or no or minor shortcomings 4 = Moderately Satisfactory (MS): more or less `meets expectations and/or some shortcomings 3 = Moderately Unsatisfactory (MU): somewhat below expectations and/or significant shortcomings 2 = Unsatisfactory (U): substantially below expectations and/or major shortcomings 1 = Highly Unsatisfactory (HU): severe shortcomings Unable to Assess (U/A): available information does not allow an assessment	4 = Likely (L): negligible risks to sustainability 3 = Moderately Likely (ML): moderate risks to sustainability 2 = Moderately Unlikely (MU): significant risks to sustainability 1 = Unlikely (U): severe risks to sustainability Unable to Assess (U/A): Unable to assess the expected incidence and magnitude of risks to sustainability

Annex I: UNEG Code of Conduct for Evaluators

Evaluators/Consultants:

Must present information that is complete and fair in its assessment of strengths and weaknesses so that decisions or actions taken are well founded.

Must disclose the full set of evaluation findings along with information on their limitations and have this accessible to all affected by the evaluation with expressed legal rights to receive results.

Should protect the anonymity and confidentiality of individual informants. They should provide maximum notice, minimize demands on time, and respect people's right not to engage. Evaluators must respect people's right to provide information in confidence and must ensure that sensitive information cannot be traced to its source. Evaluators are not expected to evaluate individuals and must balance an evaluation of management functions with this general principle.

Sometimes uncover evidence of wrongdoing while conducting evaluations. Such cases must be reported discreetly to the appropriate investigative body. Evaluators should consult with other relevant oversight entities when there is any doubt about if and how issues should be reported.

Should be sensitive to beliefs, manners and customs and act with integrity and honesty in their relations with all stakeholders. In line with the UN Universal Declaration of Human Rights, evaluators must be sensitive to and address issues of discrimination and gender equality. They should avoid offending the dignity and self-respect of those persons with whom they come in contact in the course of the evaluation. Knowing that evaluation might negatively affect the interests of some stakeholders, evaluators should conduct the evaluation and communicate its purpose and results in a way that clearly respects the stakeholders' dignity and self-worth.

Are responsible for their performance and their product(s). They are responsible for the clear, accurate and fair written and/or oral presentation of study limitations, findings and recommendations.

Should reflect sound accounting procedures and be prudent in using the resources of the evaluation.

TE Consultant Agreement Form

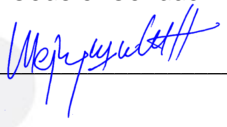
Agreement to abide by the Code of Conduct for Evaluation in the UN System:

Name of Consultant: Jude Kallick

Name of Consultant: Mitar Perusic

I confirm that I have received and understood and will abide by the Code of Conduct for Evaluation.

Signature 

Signature: 

Date ____3/7/24_____

Date __3/7/24_____

Annex J: TE Report Clearance Form

Terminal Evaluation Report for Catalyzing Environmental Finance for Low-Carbon Urban Development" (PIMS #5646) **Reviewed and Cleared By:**

UNDP Energy and Environment Sector Leader

Name: Raduska Cupac

Signature: DocuSigned by: Raduska Cupac 3F99114807FE48F...

Date: 12-Mar-2024

Regional Technical Advisor (Nature, Climate and Energy)

Name: Jana Koperniech

Signature: DocuSigned by: Jana Koperniech ED5C241FBA2C457...

Date: 12-Mar-2024

Annex K: Total Number of LCUD Project Stakeholders

Institution	# of offices/ organizations	# of Project Board Members	Location	Years with Project	Type of Activities	Comments
Governmental Bodies						
State, entity and cantonal level ministries	5	7	Sarajevo Banja Luka Mostar Travnik Zenica	From 2017	All	Ministry of foreign trade and economic relations; Federal ministry of environment and tourism; Ministry of Spatial Planning, Civil Engineering, and Ecology of the Republic of Srpska; Ministry of Education, Science, Youth, Culture and Sports Central Bosnia Canton; Ministry of Education, Science, Culture and Sports Zenica-Doboj Canton;
Local governments and municipalities	11	0	Mostar, Cazin, Bratunac, Livno, Doboj, Novi Travnik, Breza, Trebinje, Zvornik, Gradiska, Prijedor	From 2020		Mostar, Cazin, Bratunac, Livno, Doboj, Novi Travnik, Breza, Trebinje, Zvornik, Gradiska, Prijedor
Environmental Funds	2	2	Sarajevo Banja Luka	From 2017	All	
Non-Governmental Organizations (NGOs/CSOs)						

Environmental and climate advocacy groups	2	0	Sarajevo Bijeljina	2	Advocacy for the ESCO mechanism; Capacity building	Association of municipalities and cities of the FBiH Association of municipalities and cities of the RS
Human rights organizations	0	0	-	-	-	-
Local Communities						
Direct users and participants	156,282	0	Cazin, Bratunac, Travnik, Busovaca, Vitez, Breza, Livno, Cazin, Novi Travnik, Doboj, Trebinje, Zvornik, Mostar, Prijedor, Gradiska	4	ESCO, Green Logistics Schemes, Solar panels	
International Organizations						
Similar UNDP/GEF projects	2	-	Sarajevo	From 2018		GCF, SolarCET
World Bank, EBRD, etc.						
Private and public businesses						
Companies involved in sustainable practices (ESCO)	3	0	Travnik, Busovaca, Vitez, Cazin, Bratunac	3;2;1	ESCO companies	
Chambers of commerce	2	0	Sarajevo Banja Luka	1	Market research, advocacy for ESCO mechanism,	

					Capacity building	
Financial Institutions						
Banks providing project financing (if any)	0	0	-	-	-	-
Investors (if any)	0	0	-	-	-	-
Research and Academic Institutions						
Universities contributing to research in the field	1	0	Sarajevo	7	Support on various topics related to energy and environment	Mechanical Engineering Faculty in Sarajevo
Scientific organizations providing expertise/ experts in the field	0	0	-	-	-	-
Other	-	-	-	-	-	-

Annex L: TE Logical Framework Status Update

Description						
Objective **the project shall leverage investment in low-carbon urban development (LCUD) in BiH thereby promoting safer, cleaner, and healthier cities and reducing GHG emissions**						
Description of Indicator	**Baseline Level**	**Midterm target level**	**End of project target level**	**Level at 30 June, 2022**	**Cumulative progress since project start (December 2023)**	**Achievement rating and justification**
Number of new development partnerships with funding for improved energy efficiency and/or sustainable energy solutions targeting underserved communities/groups and women.	N/a	2 (with Environmental Funds of the entities)	2 (with Environmental Funds of the entities); 4 selected municipalities for implementation of LCUD investment projects; 4 selected municipalities for implementation of green logistic schemes for municipal waste recycling	Overall progress completed.	Overall, the project has achieved and surpassed the end of project target level, with following partnerships established: – 2 with Environmental Funds on implementation of ESCO and waste management, – Ministry of Foreign Trade and Economic Relations of BiH (MoFTER) and 7 entity level institutions (Ministry of Finance of FBiH, Entity-level associations of accountants, Ministries of energy, spatial planning and environmental protection in both entities) for developing ESCO strategic and regulatory framework, – 2 with Chambers of Commerce of FBiH and RS for creating ESCO Associations on entity level to advocate the energy service market development and facilitate ESCO project implementation, – Partnership with 3 public utility companies (EP BiH, ERS and EP HZHB) to become public ESCO companies, where EP BiH has already made a formal decision to become an ESCO provider, – 9 municipalities (Bratunac, Cazin, Gradiška, Srbac, Stanari, Travnik, Busovača, Vitez, Novi Travnik), 6 public institutions and enterprises (Student Centre in Sarajevo, Hospital in Foča, communal enterprises in Cazin, Sarajevo, Gradiška and Zvornik) and 4 cantonal institutions (Ministry of Education in Central-Bosnia Canton, Ministry of internal affairs in Central-Bosnia Canton, Prime Minister´s cabinet in Zenica-Doboj Canton and Ministry of Education of Zenica-Doboj Canton) for implementation of LCUD projects through ESCO model, – 5 cities/municipalities (Cazin, Mostar, Gradiška, Prijedor and Ilidža) for development and support to prosumers on local level, – 9 municipalities (Cazin, Livno, Novi Travnik, Breza, Trebinje, Bijeljina, Doboj, Zvornik) for implementation of green logistic schemes for municipal waste recycling.	Highly Satisfactory

					In this reporting period, the project has established the following partnerships: 4 partnerships with entity level institutions (Ministries of energy, spatial planning and environmental protection in both entities) for updating draft and adoption of Rulebooks for contracting and implementation of energy services in FBiH and RS, 1 public institution (Student Centre in Sarajevo) and 2 cantonal institutions (Prime Minister´s cabinet in Zenica-Doboj Canton and Ministry of Education of Zenica-Doboj Canton) for implementation of LCUD projects through ESCO model.	
Amount of project-facilitated investment in LCUD	0	15 mil USD	40 mil USD	The total amount of project facilitated investments until MTR amounts to cca 24 mil USD.	Total amount of project facilitated investments until now amounts to 26,245,590 USD, out of which 2,694,984 USD were invested during this reporting period. Until now, the project facilitated the following LCUD investments: – Total of 2,010,000 USD realized investments in energy services (ESCO model) for 4 public buildings in Central Bosnia Canton of 1,23 mil USD, 2 public lighting systems in Cazin with value of 116,000 USD and Bratunac with value of 623,900 USD. All aforementioned investments have been realized in this reporting period. – Total of 19,222,464 USD, realized through Fund for Environment of FBiH public calls in 2018, 2019, 2020 and 2021 for projects that advance energy efficiency, renewable energy, air quality, transport and waste management. In this reporting period, the 2022 call was canceled as there was political blockage of Appointment of the Government of the FBiH and this disabled any new work of entity level institutions. – Total of 4,426,126.22 USD, realized through Environmental Protection and Energy Efficiency Fund of RS public calls in 2019, 2020 and 2022 for projects in waste management, energy renovation and urban transport. In this reporting period, 242,984 USD was invested into LCUD projects. – Total of 145,000 USD was invested in green logistic schemes pilot projects in 8 municipalities in BiH in previous reporting period. – Total of 442,000 USD was invested in implementation of 66 solar systems in households for prosumers in urban areas (Cazin, Gradiška, Prijedor and Mostar) with 40% financing by cities and around 60% financing provided by citizens, in this reporting period. The project has initiated public procurement for energy services (ESCO model) in 2 public lighting systems with estimated contract value of	Moderately Satisfactory

					1,425,215 USD (Stanari with value of 817,693 USD and Srbac with value of 607,522 USD). In the next period, the project has planned the following LCUD investments: – Total of 24,427,707 USD, through public procurements for energy services (ESCO model) in 3 public buildings of Gradiška (1,393,157 USD), 20 public buildings in Zenica-Doboj Canton (10,675,000 USD) and 30 public buildings in Central-Bosnia Canton (12,359,550 USD). – Total of 2,5 mil USD through parallel financing of entities' environmental funds in LCUD projects. It is expected that all of the ongoing investments, at least ESCO project for Central Bosnia Canton out of the planned investments through ESCO public procurement and other types of planned LCUD investments presented above, will be realized by the end of the project. This will bring the project facilitated LCUD investments to 42,642,715 USD which is above the end of project target.	
tCO_2eq direct emissions reductions (which are attributable to the project-facilitated investments in LCUD made during the project's supervised implementation period, totaled over the respective lifetime of the investments	0	150,000 tCO2eq	400,000 tCO2eq (revised to 116,336 tCO2eq	As indicated in the mid-term review (MTR) report, the project originally set unrealistic objectives and indicators regarding the direct reduction of CO2 emissions, as an omission was made in the indicator which defines tCO2eq direct emissions reductions. In line with recommendations from MTR, the project revised this indicator and is on track to achieve the revised target.	The revised target for tCO2eq direct emissions reductions (which are attributable to the project-facilitated investments in LCUD made during the project's supervised implementation period, totaled over the respective lifetime of the investments) is 116,336 tCO2eq. Current estimation is that the implementation of the URBANLED investment and infrastructure activities will end up with minimum 118,763.81 tCO2eq to 184,583.35 tCO2eq emissions reduced over their lifetime, which in both cases is above the revised target. Cumulatively, the total amount of project facilitated emission reductions until now amounts to 24,633.75 tCO2eq (which are attributable to the project-facilitated investments in LCUD made during the project's supervised implementation period, totaled over the respective lifetime of the investments), out of which 15,508.75 tCO2eq emission reduction was enabled during this reporting period. Facilitated emissions reductions until now are: – 6,568 tCO2eq emissions reductions over the lifetime period of 20 years for ESCO project in 4 public buildings in Central Bosnia Canton. – 8,068.75 tCO2eq emissions reductions over the lifetime period of 25 years for ESCO project in public lighting systems of Cazin (1,857 tCO2eq) and Bratunac (6,211.75 tCO2eq). – 2,557 tCO2eq emissions reductions over the lifetime period of 20 years for green waste logistic pilot investments. – 7,440 tCO2eq emission reduction from solar energy systems for prosumers at local level in lifetime period of 25 years.	Satisfactory The revised target is estimated to have been met.

					Realization of ongoing and planned overview of expected emissions reductions through prepared and planned LCUD projects: – 128,677.1 tCO2eq emissions reductions over the lifetime period of 20 years for ESCO project in 3 public buildings in Gradiška (5,122 tCO2eq), 30 public buildings in Central-Bosnia Canton (74,133.06 tCO2eq) and 20 public buildings in Zenica-Doboj Canton (49,422.04 tCO2eq).	
Number of project beneficiaries, including % of women	NA	6,000 (including 60% - women)	15,000 (including 60% - women)	The project is on track to significantly exceed the targets as the number of beneficiaries for planned investments accounts for 1.5 million people, including an estimated number of 730.000 women (49 percent).	The project is on track to significantly exceed the targets as the number of total beneficiaries' accounts for 204,394 beneficiaries with 50,8% women. This information has been obtained from official statistical reports and estimates and information reported in the Energy Management Information System (EMIS). Current progress is set at 156,282 beneficiaries, with 50,19% women beneficiaries. This result has been achieved through: – 1,225 beneficiaries (48,24% women) of ESCO project in 4 public buildings in Central Bosnia Canton. – 84,417 beneficiaries (50,36% women) of ESCO public lighting project in Cazin (65,766 citizens – 50,29% women) and Bratunac (18,651 citizens – 50,61% women). – 70,343 beneficiaries (over 50% women), through green waste logistic schemes pilot projects in Breza (waste bins covering 120 households with estimated 372 citizens), Novi Travnik (waste bins covering 160 households with estimated 496 citizens), Livno (waste bins covering 200 households with estimated 620 citizens), Cazin (waste bins covering 130 household with estimated 403 citizens), Trebinje (waste management center design for all 28,239 citizens – 51,27% women), Zvornik (waste recycling yard design for all 39,717 citizens – 50,69% women), Bijeljina (canopy for containers covering 60 households with estimated 186 citizens) and Doboj (waste bins covering 100 households with estimated 310 citizens). – 66 households with 297 (60% women) members were selected as end-users for development and implementation of PV systems for prosumers at local level in 4 LGUs. In the next period will be implemented LCUD projects which will bring 48,112 beneficiaries, out of which is 52,77% women. This will be achieved through: – 23,924 beneficiaries (50,46% women) of ESCO public lighting project in Stanari (6,931 citizens – 49,57% women) and Srbac (16,993 citizens – 50,83% women). – 18,778 beneficiaries (51,95% women) of ESCO project in 3 public buildings in Gradiška (1,278 beneficiaries – 45,85%	Satisfactory The project exceeds the total target, but it is behind in achieving the 60% of beneficiaries who are women

					women), 30 public buildings in Central-Bosnia Canton (estimated 10,000 beneficiaries – 60% women) and 20 public buildings in Zenica-Doboj Canton (7,500 beneficiaries – 50% women).	
The progress of the objective/outcome can be described as:	**On track**					
Outcome 1 **Innovative Financing Mechanisms for Implementation of Low-Carbon Urban Development Concept (LCUD)**						
Description of Indicator	**Baseline Level**	**Midterm target level**	**End of project target level**	**Level at 30 June 2022**	**Cumulative progress since project start**	
Status and level of capitalization of the financial mechanism (ESCO Funding window)	ESCO Funding window does not exist	Regulatory framework for ESCO Fund established at each entity	ESCO Funds established and capitalized with at least 24 mln US$	The project is close to fulfilling the mid-term target (Regulatory framework for ESCO Fund established at each entity) – overall MTR cumulative progress: 80%.	In the previous periods the project has analyzed the potential roles of the Environmental Funds in the ESCO business model in BiH, institutional and financial assumptions from the aspect of the public and private sector and developed drafts of the Rulebook on energy service contracting, energy performance contracts and technical criteria for selection of a private partner. All these documents have served as input for the development of second draft Rulebooks on energy service contracting in FBiH and RS (in July 2022) and development of accounting and bookkeeping methods for ESCO projects which resulted in the adoption of a new Rulebook on income tax in FBiH (which includes ESCO). The draft Rulebooks and accounting and bookkeeping methods set out the needed basis for establishing the ESCO Fund. In this reporting period the project has received confirmation of Ministries of energy of FBiH and RS that by end of 2023 they will work on legal framework for energy efficiency and that they plan to adopt the developed draft Rulebooks for contracting and implementation of energy services in FBiH and RS. The project will continue supporting the Ministries in the finalization of Rulebooks and advocate for their adoption. In regard to achieving the end of project target of establishing ESCO Funds capitalized with at least 24 mln USD, the project has: – Developed an analysis of potential for utilization of revolving fund for funding ESCO projects and proposed a structure of revolving fund and submitted it to Entity's environmental funds. Based on this, we have received verbal confirmation of Entity's environmental funds that they plan to put in operation revolving fund in the near future. – Developed a proposal of structure and conditions for financing approval for credit line within commercial bank for ESCO projects based on the guarantees available from the	Moderately Satisfactory Progress has been made, but not yet reached its 24 million USD target

					Green for Growth programme, formerly a component of the EFSI (the 'Junckers Plan'). – Collaborated with GCF Low-Carbon project implemented by UNDP CO BiH on establishing the revolving fund within the Ministry of spatial planning of FBiH which can be used for ESCO projects in public buildings. The revolving fund is established and operational. – Developed a proposal for green credit line for Intesa Sanpaolo bank in Bosnia and Herzegovina - In June 2023, Intesa Sanpaolo Bank and UNDP team initiated a discussion to develop a green credit line for SMEs. The credit line will target the companies from industries and value chains with a carbon- and/or resource-intensive footprint and emerging ESCO (Energy Service Companies) providers. Having in mind that the project has already facilitated 2,010,000 USD ESCO investments and is planning to facilitate additional 29,743,193 USD ESCO investments, coupling these investments with established revolving fund within Ministry of spatial planning of FBiH, planned revolving funds within Entity's environmental funds and initiated cooperation with Intesa Sanpaolo bank on developing green credit line that includes ESCO projects, it can be concluded that the project is on track to establish needed ESCO funds for further growth and sustainability of ESCO model in Bosnia and Herzegovina.	
Number of staff at EFs and other stakeholders trained on the operation of ESCO Fund and other innovative financing mechanisms (including number of women)	0	10 (5 women)	40 (20 women)	The project has already reached its end target in the previous reporting period and MTR reporting.	The project has already reached its end target in the previous reporting period, as 1,426 representatives of public sector stakeholders and 423 representatives of private sector stakeholders have been trained and educated, with over 50% of women participants. During this reporting period project has continued working on capacity building of both public and private sectors to facilitate ESCO market development by building interest and capacities of municipalities and public institutions to use ESCO model (building up demand for energy services) and creating a supply of energy services through education and capacity building of SMEs that have potential and interest to become ESCO companies. Also, the project worked on building capacities for prosumers and usage of innovative subsidy-based financing mechanism for prosumers on local level. This resulted in coverage of 557 representatives of public and private sector (35,73% women), through following activities: – 6 trainings on application of ESCO model for potential ESCO companies with 95 participants (31 women). – 6 info sessions on application of the ESCo model of financing energy efficiency projects in FBiH and RS with SMEs, with 114 participants (46 women).	Highly Satisfactory The project far exceeded the target number of participants and achieved 50% participation of women.

					– 2 info sessions on ESCO business model for municipalities and cities in FBiH and RS, with 25 participants (13 women). – 4 face-to-face and 1 online info sessions for citizens of Cazin, Gradiška, Mostar and Prijedor to utilize the financing opportunity for prosumers and local governmental units to implement financing mechanism for solar energy, with 237 participants (70 women). – One online training on capacity development of SMEs and public Institutions on usage of ESCO model for improving energy efficiency and achieving savings in their building and systems, with 58 participants (28 women). – Study visits to ESCO companies in Serbia (Negawatt solutions) and Croatia (HEP ESCO) for sharing experience and building trust in applicability of ESCO in Bosnia and Herzegovina based on regional success, with 28 participants (11 women) from key public institutions and interested companies.	
Status of MRV system	No MRV system in place	MRV system proposed and tested	MRV system is both operational in both entities	Based on previously developed instructions by the URBANLED project, in this reporting period, the ESCO module in EMIS and the Handbook for ESCO module have been developed. Overall progress: 70%	In previous period, the ESCO module in EMIS and the Handbook for ESCO module, the Monitoring, Reporting and Verification (MRV) protocols for different ESCO projects (public buildings, heating systems, public lighting systems and waste transportation) have been developed, as well as the draft Roadmap for ESCO market development in BiH which has the instructions for MRV system deployment and the draft Rulebooks for contracting and implementation of energy services in FBiH and RS which state the obligation of MRV and formulate the MRV process to be undertaken by Entity's Environmental Funds and Ministries of energy in FBiH and RS. In this reporting period, the MRV protocols for different ESCO projects have been tested and the ESCO projects Guidebook with concrete instructions for MRV of individual ESCO projects by end-user, the ordering party and ESCO company, has been developed.	Moderately Satisfactory The MRV system was developed but not fully operational
The progress of the objective/outcome can be described as:	**On track**					
Outcome 2 **Low-carbon public buildings and utilities**						
Description of Indicator	**Baseline Level**	**Midterm target level**	**End of project target level**	**Level at 30 June 2022**	**Cumulative progress since project start**	
Number of public facilities and utilities covered by EMIS on municipal level	2300	1500	3800	MTR team noticed an omission in the log frame regarding the midterm target – 500 buildings	3,936 In this reporting period, the project in cooperation with GCF Low-Carbon project, entered into EMIS 388 public facilitates and utilities on municipal level.	Highly Satisfactory The target was met

				should be covered by midterm while the entire progress is targeted at 1500 buildings (as the end of project target level). So far, data on 1251 public facilities formally registered as owned or used by municipalities have been covered by EMIS. This means that the project is close to achieving the real end of project target (1500 buildings). When it comes to the total level of entries at the municipal level it sums up to 3.551 public facilities in EMIS. These public facilities include administrative, educational and medical buildings, as well as public utility systems such as the public lighting system. Current overall progress is around 93.4%	In total since project initiation, data on 1,639 public facilities and utilities formally registered as owned or used by municipalities have been covered by EMIS. This means that the project has achieved the revised end of project target (1,500 buildings). When it comes to the total level of entries at the municipal level it sums up to 3,936 public facilities in EMIS.	
Number of people trained in energy management and LCUD project design and implementation (and % women)	0	500 (20%)	1,500 (30%)	In the MTR period, the project has reached the end-of-project target (1,500 people trained in energy management and LCUD project design and implementation), as it has directly provided training to over 2,349 representatives of the public and private sector (with an average	In the previous reporting period, the project has reached and surpassed the end-of-project target, as it has directly provided training to over 2,349 representatives of the public and private sector (with an average participation of women around 40%). In this reporting period, the project has provided training to 1,354 representatives of the public and private sector (39,8% women), which was achieved through following activities: – 2 months long certification programme in Kaizen and Lean management focused on building skills of participants to identify and initiate, design and implement Kaizen solutions in their operations, that will enable them to increase their resistance to risks of decarbonization and reduce their carbon footprint, with 39 participants (18 women).	Highly Satisfactory The project exceeded the target and the percentage of women.

				participation of women around 40%).	– 49 training sessions for energy associates and energy managers, coordinators/energy managers from the organizational scheme of energy management in FBIH and RS, in cooperation with GCF Low-Carbon project, with 758 participants (322 women). – Previously mentioned and elaborated capacity building activities of both public and private sectors to implement ESCO projects and prosumers on local level. This resulted in coverage of 557 representatives of public and private sector (199 women).	
Number of infrastructural LCUD projects implemented	0	15	45		65 The project has exceeded the end target as the implementation of the LCUD projects advances. Until now, the project has implemented 65 LCUD infrastructural projects, out of which: – the Environmental funds have been supported to invest in 51 LCUD projects out of which 43 have been implemented in FBiH (16 in waste management, 14 in energy efficiency, 4 in renewables and 9 in transport) and 8 LCUD infrastructure projects in RS (1 in energy efficiency, 1 in fuel switch and 6 in the field of waste management). – 4 ESCO public building projects of Canton Central Bosnia (primary school in Busovača, secondary school in Busovača, primary school in Travnik and police station in Vitez). – 2 ESCO public lighting projects in Cazin and Bratunac. – 5 green waste schemes projects in Breza (140 bins of 120 l and metal bins of 1,1m3), Novi Travnik (metal bins of 1,1m3), Cazin (glass crusher and plastic bins of 1,1m3), Livno (plastic bins of 1.1 m3) and Doboj (bins of 7 m3). – through development of green waste logistic schemes the municipalities have been supported to invest in 3 projects (Breza: sanitation of illegal waste landfills, construction of bring banks, Livno: procurement of waste transport vehicle and Novi Travnik: procurement of waste transport vehicle, waste bins and recycling and waste management equipment, construction of four bring banks). In this reporting period, the project has: a) Implemented the following LCUD infrastructure projects: – the Environmental fund of RS has been supported to invest in 2 LCUD infrastructure projects (1 in energy efficiency and 1 in fuel switch). – 1 ESCO public lighting project in Bratunac. b) Initiated implementation of LCUD infrastructure projects: – 2 ESCO public lighting projects in Stanari and Srbac.	Highly Satisfactory The project Exceeded the target

					– 60 solar systems (4,5 and 6 kW) in households for first prosumers in Cazin, Gradiška, Mostar and Prijedor. c) Prepared implementation of LCUD projects: – 3 ESCO public building projects in Gradiška. – 7 ESCO public building projects in University of Zenica – on hold. – 1 ESCO heating project in university hospital of Foča – on hold. – 4 ESCO waste transport vehicles projects for Sarajevo, Cazin, Gradiška and Zvornik. – 11 ESCO public building projects in Novi Travnik. Vogošća, Canton Sarajevo. Which are on hold and might not be implemented due to lack of political will. – 2 ESCO public lighting projects in Zvornik and Brod, which will not be implemented as the municipalities have decided to seek grant financing. d) Is developing documentation for LCUD infrastructure projects: – 30 ESCO public building projects in Central-Bosnia Canton. – 20 ESCO public building projects in Zenica-Doboj Canton.	
The progress of the objective/outcome can be described as:	**On track**					
Outcome 3 **Status of MRV for waste sector**						
Description of Indicator	**Baseline Level**	**Midterm target level**	**End of project target level**	**Level at 30 June 2022**	**Cumulative progress since project start**	
Status of MRV for waste sector	No MRV for waste sector	Identified MRV modalities evaluated and MRV system proposed	MRV system established (data collection, assessment, archive and evaluation), institutionalized and legally recognized responsibility for MRV in place	Waste Management System (WMS) of FBiH (https://www.otpadfbih.ba/) has been finalized and in use since the beginning of 2021. Besides, training materials have been developed in line with modules of the system and online trainings for the representatives of the waste management enterprises and selected	In this reporting period, the project has succeeded in achieving the end of project target, by having digital waste management system functional in both entities of BiH and recognized through legal framework. Waste Management System (WMS) of FBiH (https://www.otpadfbih.ba/) has been finalized and in use since the beginning of 2021. While, the IT WMS in RS has been finalized in May 2023 and transfer of ownership towards Environmental Fund of RS in planned for July 2023. Both systems are designed to enable the usage and generation of reliable waste-related data for drafting of strategic and action plans, monitoring their implementation and results of activities on the field in terms of reduction of GHG emission and generated waste, as well as	Satisfactory The Systems are in place and functional.

				reporting entities (recycling enterprises, waste producers, etc.) have been held. Overall, around 500 participants attended online trainings.	reporting to the European Union on the generation and waste flows in BiH. In the next period, the project will work on advocating data entry into system and promotion of registration of obliged entities into Waste Management Systems of FBiH and RS.	
Reduction in fuel consumption from the municipal waste transportation (% to baseline) in pilot municipalities	N/a	15% reduction in at least 2 municipalities	15% reduction in all 6 pilot municipalities	The project has identified 8 municipalities and one Canton to achieve a 15 percent reduction in fuel consumption. Overall cumulative progress: 85%	Based on the developed green logistic schemes (with feasibility studies for environmentally acceptable collection and transport of municipal waste in FBIH and RS) and pilot projects for fuel reduction in waste transportation, in this reporting period the project has achieved the end of project target. The implemented green logistic schemes pilot projects have resulted with 22,96% reduction in fuel consumption in 6 municipalities. The reduction of fuel consumption per municipality is as follows: – Breza: 25% reduction in fuel consumption (through pilot project implementation). – Cazin: 25% reduction in fuel consumption (5% through pilot project, rest by implementation of other measures from green logistic schemes by municipality). – Novi Travnik: 21,5% reduction in fuel consumption (8,3% through pilot project, rest by implementation of other measures from green logistic schemes by municipality) – Livno: 27,6% reduction in fuel consumption (11,4% through pilot project, rest by implementation of other measures from green logistic schemes by municipality) – Doboj: 20% reduction in fuel consumption (through pilot project implementation). – Bijeljina: 18,7% reduction in fuel consumption (through pilot project implementation). The project has potential to surpass the set-out target through: – 50% reduction in fuel consumption in Zvornik. The project developed project design for waste recycling yard and the City aims to implement it in next period. – More than 30% reduction in fuel consumption through implementation of ESCO waste vehicles projects in Cazin (estimated 39,7% reduction), Gradiška (estimated 39,6%), Zvornik (estimated 54,5%) and Sarajevo (estimated 55,2%). The project has developed ESCO tender documentation and is now facilitating potential ESCO suppliers.	Highly Satisfactory The project has exceeded its target
The progress of the objective/outcome can be described as:	**On track**					

Outcome 4 **National and sectoral policies, institutional coordination and awareness raising on low carbon urban development**						
Description of Indicator	**Baseline Level**	**Midterm target level**	**End of project target level**	**Level at 30 June 2022**	**Cumulative progress since project start**	
Status of relevant LCUD enabling rules and regulations	n/a	Harmonized LCUD-enabling rules and regulations proposed	Harmonized LCUD-enabling rules and regulations developed and enacted across BiH	Harmonization of LCUD-enabling rules and regulations across BiH is a complex task. The project has facilitated several local, entity and state-level regulations that are supporting LCUD development. Current overall progress is 95%.	The project has developed 65 local, entity and state-level regulations, legal analysis and strategic documents that are supporting LCUD development. In this reporting period, the project has advocated the adoption of legal and strategic documents by relevant governmental levels during the remaining project period. The project facilitated adoption of 46 regulations and strategic documents, and are working on adoption of following documents in the remaining period of project implementation: – SECAPs for remaining 4 municipalities (38 adopted) – Circular Economy Roadmap for BiH – Roadmap for ESCO market development in BiH – Rulebook for contracting of energy services (RS and FBiH)	Satisfactory The project developed a vast number of legal and strategic documents that were adopted by the relevant governmental levels. However, one overarching law at the state level has not be approved.
Number of people reached out to by national LCUD awareness raising campaign (refer to Annex B of the Project Document for details on how this will be measured)	0	200,000 (at least 50% women)	750,000 (at least 50% women)	In this MTR period, the approach for awareness-raising activities has been mainly focused on targeted direct communication and promotion of realized and planned activities and in line with the official COVID-19 prevention mechanism (virtual, hybrid and face-to-face modalities). TV media: 1 million citizens. Face-to-face modality: cca 500 representatives of the public, commercial and residential sectors. Current overall progress: 100%	In this reporting period, the following raising awareness activities have been implemented: – Participation at high-level energy events with more than 100 participants each: ○ Trebinje Energy Summit – had a panel on ESCO on March 23rd, 2023 ○ Energy Summit Neum 2023 – where UNDP Resident Representative mentioned the project achievements ○ The Regional Knowledge Symposium "Energy Efficiency of Buildings in the Balkans+ Region" – participation on consumer behavior panel ○ Conference "Green Economy – Driver of economic development of RS" – participation on sustainable financing panel ○ Sarajevo Energy Forum – participation on panel for sustainable financing – Online promotion of public calls for prosumers on local level, which covered 146,000 citizens (73,500 women). – 25 online training sessions on IT WMS, with 259 participants (number of women 104)	Highly Satisfactory Communications far exceeded the target for total number of people reached. However, data on the percentage of women was not available for all activities.

					– Organization of ESCO info sessions and study visit to Croatia and Serbia (before mentioned) with 404 participants (140 women). – Social media engagement, for which the links are provided in Chapter J. Until now, the project has cumulatively reached through: Online promotion: 1,062,352 people reached (146,000 in 2022, 310,090 in 2021, 79,221 In 2021, 477,500 in 2020, 39,541 in 2019) out of which is 54% women. TV media: 1 million citizens. Face-to-face modality: more than 1,200 representatives of the public, commercial and residential sectors. Additional promotion is planned for the next period, as the project has planned the following: – Ensure effective dissemination of information and visibility of URBANLED project activities and results through 5 stories in regional and local media outlets, – Identify and ensure participation and URBANLED project and visibility at three high-level events in the country, and one for region and one international event, – Develop press releases for 5 key project results and ensure presences of URBANLED project on UNDP social media channels (one post per month until end of 2023) including development of 3 promo videos.	
The progress of the objective/outcome can be described as:	**On track**					