

UNITED NATIONS DEVELOPMENT PROGRAMME

Mid Term Review of the UNDP GEF Project: Catalysing Environmental Finance for Low-Carbon Urban Development

(UNDP PIMS ID 5646; GEF ID 9151)

REVIEW REPORT

3 DECEMBER 2020

Country(ies)	Bosnia & Herzegovina
UNDP-GEF Technical Team	Energy, Infrastructure, Transport and Technology
Project Implementing Partner	BIH10 (Bosnia & Herzegovina)
Project Type	Full Size
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A Report for UNDP

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GLOSSARY

BiH Bosnia and Herzegovina CDT (Local) Country Delivery Team Ctry/ies Country/Countries DoA Description of the Action of the Contribution Agreement EC European Commission EE Energy Efficiency Ers Environmental Funds of the Federation of Bosnia and Herzegovina and Republika Srpska
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Environmental Funds of the Fodoration of Possia and Horzogovina and Popublika Srnska
Ers Environmental runus of the rederation of boshia and nerzegovina and kepublika srpska
EIA Environmental Impact Assessment
EIB European Investment Bank
EQ Evaluation Question
EMIS Energy Management Information System
ESCO Energy Service Company
EU European Union
FV/FVP Field Visit/Field Visit Programme
FBiH Federation of Bosnia and Herzegovina
GEF Global Environment Facility
GHG Greenhouse Gases
LCUD Low-Carbon Urban Development
MET FBiH Ministry of Environment and Tourism of Federation of BiH
MOFTER Ministry of Foreign Trade and Economic Relations of BiH
MRV Measurement, Reporting and Verification
MSPCE RS Ministry of Spatial Planning, Civil Engineering, and Ecology of Republika Srpska
PIR GEF Project Implementation Report
Prodoc Project Document
RES Renewable Energy Sources
RS Republika Srpska
SECAP Sustainable Energy and Climate Action Plan
SES UNDP Social and Environmental Standards
SME Small and Medium Enterprise
SO Specific Outputs
ToR Terms of Reference
UNDP United Nations Development Programme

Review Report

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1 EXECUTIVE SUMMARY

Project Information Table

The table below provides a summary of the UNDP GEF Project Catalysing Environmental Finance for Low-Carbon Urban Development.

Table 1.1 – Project Summary

Project Title: Catalyzing Environmental Finance for Low-Carbon Urban Development			
UNDP Project ID (PIMS #): 5646		PIF Approval Date	e: Jun 8, 2016
GEF Project ID (PIMS #): 9151		CEO Endorsement Date: Aug 2, 2017	
ATLAS Business Unit, Award # Proj. I	D: 00100625	Project Documen	t (ProDoc) Signature Date (date
		project began): 01.12.2017.	
Country(ies): Bosnia and Herzegovin	а	Date project manager hired: 01.01.2018.	
Region: Europe and the CIS		Inception Worksh	nop date: May 28, 2018
Focal Area: Climate Change Mitigation	on	Midterm Review	completion date: 03.12.2020.
GEF Focal Area Strategic Objective: I	Demonstrate	Planned planed c	losing date: Dec 1, 2022
systematic impact of mitigation options			
Trust Fund [indicate GEF TF, LDCF, SCCF, NPIF]: GEF		If revised, proposed op. closing date: Dec 1, 2023	
TF			
Executing Agency/ Implementing Partner: UNDP (DIM)			
Other execution partners: Ministry of Foreign Trade and Economic Relations of BiH (MoFTER); Ministry of			
Spatial Planning, Construction, and Ecology of Republika Srpska (MSPCE RS); Ministry of Environment and			
-	Tourism of Federation of BiH (MET FBiH); Fund for environmental protection of FBiH (EF FBiH); The		
Environmental Protection and Energy Efficiency Fund of RS (EF RS)			
Project Financingat CEO endorsement (US\$)at Midterm Review (US\$)*			
[1] GEF financing: 2,370,000 2,370,000			
[2] UNDP contribution: 4,500,000 4,500,000		4,500,000	
[3] Government: 37,550,627			12,900,000**
[4] Other partners:	N/A		N/A
[5] Total co-financing [2 + 3+ 4]:	42,050,627		

^{*} data from the last PIR (D. Implementation Progress)

44,420,627

Project Description

PROJECT TOTAL COSTS [1 + 5]

The project rationale stems from the history of neglect and under-investment in urban infrastructure in BiH, spanning not just public and residential buildings but also energy systems and utilities, waste management, and transport, are the significant modernization, upgrading and expansion needs that emanate from this under-investment. The 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. 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

^{**} current data on parallel co-financing

¹ Description of the Action – Project Implementation review, UNDP, 2019.

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).

The 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 Board is comprised of the following institutions: Ministry of Foreign Trade and Economic Relations of BiH, Ministry of Spatial Planning, Civil Engineering and Ecology of Republika Srpska, Ministry of Environment and Tourism of Federation of BiH, Fund for Environmental Protection and Energy Efficiency of Republika Srpska and the Fund for Environmental Protection of Federation of BiH.

It is of note to emphasize complex structure of the country which represent a challenge toward achieving project targets. For example, project has to develop and test two ESCOs for two entities of the country – Federation of BiH (hereinafter FBiH) and Republika Srpska (hereinafter RS). Same also holds for the IT waste management systems. In general, the background in two entities is identical; however the climate and overall readiness for achieving such reforms varies and it is a challenge to secure that parallel processes are in line both in terms of progress and approaches as the overall reporting for the entities should result with a common picture at the level of Bosnia and Herzegovina (hereinafter BiH).

Project Progress Summary

The project has implemented a series of activities from all four project's components, providing for example technical assistance for the preparation of draft Rulebook on Energy Service Contracting and Implementation/Energy Performance Contract for FBiH. As a result of this activity, local consultant for development of EPC/ESC and analysis of potential roles of EF FBiH in ESCO financial mechanism has been engaged, and the draft legislative framework, ESCO Rulebook and Contracts² have been completed, with only a final review and confirmation from the Project Board pending. Along with these activities, collaboration with FBiH Ministry of Energy, Mining and Industry and State Ministry of Finance and Treasury on creating the preconditions for introduction of ESCO in FBiH have been intensified. Parallel to these activities, testing of ESCO contracts on selected public buildings in FBiH have been initiated (local consultants for development of feasibility study for ESCO projects have been selected) while realization of infrastructure projects is planned for 2021. In case of RS, four consultants (2 economists; legal expert and engineer) have been engaged for development of the ESCO financial mechanism in RS by the beginning of 2020. Most of the documentation and analysis needed for the development of ESCO model in RS (i.e. analysis of preconditions for ESCO regarding legislative and institutional preconditions as well as market and financial risks analysis; criteria for selection of private partner, conceptual model of ESCO mechanism, bookkeeping model) have been finalized in 2020 while initiation of its testing is planned for the first half of 2021.

In case of the International Consultant for the development of the financial mechanism and development of regulations on polluter pays principles, tasks defined in the contract referred to the development of necessary regulations for instituting polluters pay principle (PPP) aiming to improve the system for collecting PPP fees by entities' Environmental Funds (EFs) and to develop a detailed financial mechanism for the low-carbon urban development (LCUD) projects which represent an ESCO funding window within entities' EFs. However, current conditions in Bosnia Herzegovina (BiH) have been assessed as not conducive to a proper introduction of PPP, with comprehensive reforms being deemed necessary before any introduction of PPP, and consequently not all tasks of the international consultant could be executed. By the beginning of 2020, the situation regarding the establishment of ESCO financial mechanisms has evolved in FBiH and RS, both

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² ESCO Contract for Public Lighting and ESCO Contract for Buildings

substantially and in terms of the timeframe. Therefore, new contract for the international consultant has been focused exclusively on the ESCO mechanisms through overall steering of local consultants to ensure development of self-sustain ESCO models (position of International Consultant for development of ESCO financial mechanisms in BiH). When it comes to the PPP, so far, a local consultant conducted analysis on environmental taxes in FBiH and potentials for introducing PPP. In case of RS, Project Board members did not express the need for conducting such analysis so far. Project will maintain communication with Project Board members on this issue and provide technical assistance for providing similar analysis in RS and advocating the benefits of PPP. However, having in mind current situation, concrete progress in terms of its introduction and operationalization is not expected during the project implementation.

Additionally, the project engaged the Service Provider for development and organization of trainings on project cycle management for representatives of Project Board institutions of UrbanLED project. Tailor-made trainings will be initiated in December 2020.

Regarding partnerships with municipalities, 15 Sustainable Energy and Climate Action Plans (hereinafter SECAPs) are finalized by the end of August 2020 and five SECAPs were adopted by the municipal assemblies (Doboj, Gradiška, Kotor Varoš, Laktaši, Odžak) so far. Along with the applications for preparation of SECAPs, municipalities submitted written consent on readiness to co-finance infrastructure projects stemming from SECAPs in the amount of at least 30%.

Along with that, following steps for the selection of infrastructure projects which are to be realized in line with ESCO models developed in FBiH and RS were developed by UrbanLED project team and communicated with LowCarbon and GED project teams:

- a. 37 municipalities for which SECAPs have been prepared by the technical support of GCF-funded "Scalingup Investment in Low-Carbon Public Buildings" (LowCarbon) project and UrbanLED will be the pool for selection of pilot municipalities
- b. Priority projects from SECAPs will be used as starting point for selection of projects to be implemented in accordance with the ESCO models
- c. Public facilities for which detailed energy audits have been prepared by the Green Economic Development (GED) and LowCarbon projects in SECAP municipalities will be used as a pool for piloting the ESCO models in FBiH and RS
- d. Tracking the progress of the investments will rely on the data of the selected public facilities which are already inserted into the Energy Management Information System (EMIS); particularly the ones which are needed for emission reduction calculations.

These steps were approved by the Project Board.

When it comes to the EMIS, one of the outcomes of UrbanLED project is its expansion both in terms of the number of public facilities for which the data will be compiled and their representatives educated for usage of EMIS, as well as in the development of ESCO module for EMIS as its important asset. International Consultant for development of ESCO financial mechanisms in BiH is currently working on Guidebook for development of ESCO module for EMIS which will be finalized by the end of 2020.

Furthermore, the project has cooperated closely with the Environmental Funds of RS and FBiH in order to encourage municipalities to send list of facilities and utilities owned by municipalities that could be entered into the EMIS, and to-date data on 490 municipal public facilities has been covered by EMIS. For purpose of usage of EMIS, so far, 205 representatives (males: 112; females: 93) of public facilities and utilities have been trained.

Regarding the development of the MRV for the waste sector (IT waste management system) ToRs were developed under the review of the Working Group³. The decision to have two separate IT systems for FBiH and RS has generated significant delays. Service Provider for development of IT waste management system in FBiH has been contracted in August 2019 (which is 1 year and 8 months after project initiation) and the most important modules of the system⁴ have been developed and are in testing phase by employees of FBiH EF. Trainings for users of IT waste management system were planned for the end of 2020, however postponed to a later date due to the COVID-19 pandemic and inability to have face-to-face trainings. In case of RS, draft ToR was prepared along with the one for FBiH. However, the tendering procedure awaited the adoption of amendment to the Law on waste management of RS, adopted quite recently. This amendment regulates the preparation of two modules of the IT waste management system. As recently decided, tendering procedure will be announced, and development of IT waste management system will be initiated in February 2021.

UrbanLED has also engaged a local consultant for revision of fees in FBiH on municipal waste for disposal (including industrial non-hazardous waste) with propositions to introduce weight or volume-based tariffs for disposal of these types of waste. ToR for local consultants for revision of these fees in RS is to be announced in forthcoming period. This will ensure common ground for advocating the reforms needed in this sector in both entities.

Furthermore, the Project has organized public call for municipalities in RS for preparation of waste management plans with green logistic schemes for waste management. Four municipalities (Trebinje, Zvornik, Bijeljina and Doboj) have been selected. Selected municipalities submitted their consents for cofinancing in amount of at least 30% for the development of waste management plans with green logistic schemes as well as implementation of infrastructure projects selected from the documents developed. ToRs for preparation of waste management plans with green logistic schemes are prepared and will be announced by the beginning of 2021. As for FBiH, decision on green logistic schemes is still pending and it will be further agreed with FBiH Environmental Fund on approaches for realization of this activity in FBiH.

Both SECAPs and waste management plans with green logistic schemes for RS represent a basis for selection of infrastructure projects to be piloted in order to achieve CO₂ emission reductions, planned by the Project.

When it comes to the development and harmonization of legislative frameworks relevant for low carbon urban development in BiH, in consultation with Project Board members, ToRs were prepared, local consultants engaged and following documents developed and/or under development: Draft Law on air protection in FBiH, Draft bylaw document on GHG inventory in FBiH; detailed analysis of the current Law on waste management of RS, Amendment of current Law on waste management in RS, Decision on establishment of energy management system at state-level, Analysis of all parafiscal charges collected on the basis of environmental pollution in FBiH, Draft Rulebook on energy audits for utility services in FBiH, Strategic document in field of energy efficiency at level of BiH, Draft versions of Decree on Environmental Impact Assessment and Decree on Environmental Permitting as bylaw documents of the draft Law on Environmental Protection in the FBiH.

In the previous period, the Service Provider was selected, focus groups and opinion survey on low-carbon urban development concept were organized. Results of survey and focus groups were utilized for development of Communication Strategy. After that, 3 brochures (on LCUD concept, Energy Efficiency

³ Comprising representatives from the Ministry of Foreign Trade and Economic Relations of BiH, RS Ministry of Spatial Planning, Civil Engineering and Ecology, Federal Ministry of Environment and Tourism, Environmental Fund of FBiH and Environmental and Energy Efficiency Fund of RS.

⁴ Administration module; Module for monitoring and calculation of fees for special categories of waste; Waste streams management module.

measures in context of LCUD and Waste management in context of LCUD), leaflet on project's activities and general principles of LCUD concept have been developed. In previous period, Service Provider prepared 5 posts per month based on promotional materials developed. Additionally, several TV guests have been organized. Based on the AGB Nielsen; Ipsos; media guests in different TV channels resulted in reach of around 1 mil. BiH citizens. Moreover, Service Provider provided support to marking the June 5th, World Environment Day, by painting the mural at one kindergarten in Banja Luka. This activity was very welcomed and supported on social media channels.

Review Ratings & Achievements (Summary Table)

The table below sets out the review ratings and a summary of the project's key achievements:

Table 1.2 - Overview Review Ratings

Measure	Project Area	MTR Rating
Project Strategy	N/A	
	Objective: To leverage investment in low-carbon urban development in BiH thereby promoting safer, cleaner, and healthier cities and reducing GHG emissions	Moderately Unsatisfactory
	Number of new development partnerships with funding for improved energy efficiency and/or sustainable energy solutions targeting underserved communities/groups and women.	Moderately Satisfactory
	Amount of project-facilitated investment in LCUD	Highly Satisfactory
	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	Moderately Unsatisfactory
	Number of project beneficiaries, including % of women	Moderately Unsatisfactory
Progress Towards Results	Outcome 1: Innovative Financing Mechanisms for Implementation of Low-Carbon Urban Development Concept (LCUD)	Moderately Unsatisfactory
	Outcome 1.1 Status and level of capitalization of the financial mechanism (ESCO Funding window)	Moderately Unsatisfactory
	Outcome 1.2. Number of staff at EFs and other stakeholders trained on the operation of ESCO Fund and other innovative financing mechanisms (including number of women)	Moderately Satisfactory
	Outcome 1.3. Status of MRV system	Moderately Unsatisfactory
	Outcome 2: Low-carbon public buildings and utilities	Moderately Unsatisfactory
	Outcome 2.1: Number of public facilities and utilities covered by EMIS on municipal level	Moderately Satisfactory
	Outcome 2.2.: Number of people trained in energy management and LCUD project design and implementation (and % women)	Moderately Unsatisfactory
	Outcome 2.3.: Number of infrastructural LCUD projects implemented	Moderately Unsatisfactory

	Outcome 3: Status of MRV for waste sector	Moderately Unsatisfactory
	Outcome 3.1.: Status of MRV for waste sector	Moderately Unsatisfactory
	Outcome 3.2.: Reduction in fuel consumption from	Moderately Unsatisfactory
	the municipal waste transportation (% to baseline)	
	in pilot municipalities	
	Outcome 4: National and sectoral policies,	Moderately Satisfactory
	institutional coordination and awareness raising	
	on low carbon urban development	
	Outcome 4.1.: Status of relevant LCUD enabling	Moderately Satisfactory
	rules and regulations	
	Outcome 4.2.: Number of people reached out to	Moderately Unsatisfactory
	by national LCUD awareness raising campaign	
Project		Unsatisfactory
Implementation		
& Adaptive		
Management		
Sustainability		Moderately Likely

Review Conclusions (Summary Table)

The table below summarises the mid-term review conclusions:

Table 1.3 - Summary of Mid-term Review Conclusions

No.	Conclusion
C1	C1 - Project design and scope of coverage: Regarding design, the project combines activities from two large sectors, namely energy and waste. The original proposal, according to the information from UNDP, covered several additional activities and a larger budget for implementation, with the budget and related activities reduced following negotiation with GEF. However, the project activities in the field of energy efficiency (e.g. development of innovative financial mechanism, preparation of SECAPs) and waste (e.g. development of IT waste management systems in FBiH and RS) are for the most part distinct and there are limited internal linkages and synergies between them; apart from the fact that both segments of the project should contribute to the CO2 emission reductions.
C2	Project progress towards outcomes: The implementation of two key activities of the Project have been delayed since the decision on approaches to introduce ESCO financial mechanisms (two approaches for two entities; FBiH and RS) as well as negotiation to have two separate IT systems for waste management for two entities (although originally it was planned to have one IT system for waste management), took a lot of time and effort to reach consensus (app. 2 years of project implementation). It is of note to emphasize that these activities have been intensified by the beginning of 2020 and, despite of the delays, project is on the track to achieve the targets defined. For now, a key positive outcome of the project is the finalisation of 15 Sustainable Energy and Climate Action Plans in cities and municipalities. The process of adoption of SECAPs by local assemblies has however been slowed down due to reduced activities of municipal authorities, COVID 19 pandemic and upcoming local elections. So far, five SECAPs were adopted by the municipal assemblies (Doboj, Gradiška, Kotor Varoš, Laktaši, Odžak). Along with EMIS and detailed energy audits conducted by the LowCarbon and GED projects, SECAPs will be utilized as

No.	Conclusion
	starting point for selection of infrastructure projects for ESCO piloting in FBiH and RS which is to be initiated in 2021.
	Regarding some of the educational activities (e.g. trainings), these have been delayed as a result of the COVID-19 pandemic. When it comes to the waste management component, the most important modules of the IT system for waste management in FBiH have been developed and tested by the employees of EF FBiH. Selection of service provider for the development of the IT system for waste management in RS shall be finalized by the beginning of 2021 as well as the development of waste management plans with green logistic schemes for 4 selected municipalities in RS. As for FBiH, decision on green logistic schemes is still pending and it will be further agreed with FBiH Environmental Fund on approaches for realization of this activity in FBiH. In case of provision of support for the development of legislative documents relevant for the LCUD in BiH, project has not faced with any difficulties and impediments ever since its initiation. Same also holds for the awareness raising activities, although in general it misses the focus as the finalization of core activities of the project (i.e. introduction of ESCOs in FBiH and RS) are in delay.
	Overall, however, the project is off track, and is expected to partially achieve its end-of-project targets by project closure with significant shortcomings. Project results might be fully achieved by project closure if adaptive management is undertaken immediately. Adaptive management measures are needed for the realization of the core project activities: introduction of ESCO financial mechanisms in RS and FBiH, realization of ESCO pilot infrastructure projects and further adoption of ESCO financial mechanisms in the country; introducing IT waste management systems in FBiH and RS and realization of green infrastructure projects. However, project achieved significant progress in recent period in development of ESCO financial mechanisms in RS and FBiH, initiation of activities in RS regarding development of IT waste management system and preparation of waste management plans with green logistic schemes, thus the chances to reach the planned results of the Project have increased.
C3	Focus on ESCO Mechanism: The project focus on developing ESCOs as a core financial mechanism has not been underpinned by detail analysis. The MTR team has not identified any example of functioning ESCOs in BiH. However, UNDP team conducted baseline assessment during the development of project document. Withal, UNDP team has constant communication with Project Board member institutions, both during the development of project document as well as during the initiation of activities regarding introduction of ESCO models in FBiH and RS. In order to be a more efficient, due to the delays in initiation of ESCO development activities, it has been decided that a detailed gap analysis relevant for introduction of ESCOs is to be conducted by local consultants engaged for the development of ESCOs in FBiH and RS (i.e. development of report on preconditions for ESCO in RS; development of criteria for selection of private partner; sustainability analysis of proposed ESCO model in RS; feasibility study for selected public buildings RS; development of bylaw document in FBiH that defines ESCO contracting modalities; analysis of potential roles of FBiH EF in ESCO model and development of draft ESCO contracts for public lightning and energy efficiency measures and their testing on selected public buildings, and feasibility study for selected public buildings in FBiH). The development of an innovative financial mechanism for financing low-carbon urban development projects and ESCO project is a one of the key issues for implementation of investments, introducing co-financing and further

No.	Conclusion
	development of partnerships. Therefore, apart from the involvement of selected public partners for realization of pilot ESCOs, it is planned to have extensive discussion with private sector representatives, identified as potential ESCO companies, on what have been developed and proposed by the UrbanLED project. At a minimum, the basic ESCO market overview should be prepared and could for example contain desk research of ESCO experience in neighbouring countries (e.g. Croatia, Serbia) as an analysis of current practices.
C4	GCF-UrbanLED cooperation and synergies: In order to secure synergetic action among these two projects as well as to increase the effects of project activities (i.e. to finance development of SECAPs for 37 municipalities rather than 15 as planned by the UrbanLED project), the cooperation between GCF and UrbanLED projects needs to be clearly elaborated and follow-up with joint decision making and promotion of results achieved. Following steps for the selection of infrastructure projects which are to be realized in line with ESCO models developed in FBiH and RS were developed by UrbanLED project team and communicated with LowCarbon and GED project teams:
	 a. 37 municipalities for which SECAPs have been prepared by the technical support of GCF-funded "Scaling-up Investment in Low-Carbon Public Buildings" (LowCarbon) project and UrbanLED will be the pool for selection of pilot municipalities b. Priority projects from SECAPs will be used as starting point for selection of projects to be implemented in accordance with the ESCO models c. Public facilities for which detailed energy audits have been prepared by the Green Economic Development (GED) and LowCarbon projects in SECAP municipalities will be used as a pool for selection of facilities for piloting the ESCO models in FBiH and RS d. Tracking the progress of the investments will rely on the data of the selected public facilities which are already inserted into the Energy Management Information System (EMIS); particularly the ones which are needed for emission reduction calculations These steps were approved by the Project Board.
	When it comes to the EMIS, one of the outcomes of UrbanLED project is its expansion both in terms of the number of public facilities for which the data will be compiled (amounting to 490 public facilities covered by EMIS until now) and their representatives educated for usage of EMIS (so far, 205 representatives, out of which 93 are females), as well as in the development of ESCO module for EMIS as its important asset. International Consultant for development of ESCO financial mechanisms in BiH is currently working on Guidebook for development of ESCO module for EMIS which will be finalized by the end of 2020. Joint development of SECAPs represents a good example of the possible collaboration of two
	projects. Additionally, the analysis and presentation of cooperation and synergies between two projects should be reported in the PIR and other reports (e.g. minutes from the Project Board meetings).
C5	Direction of support towards waste management and logistics. Project faced with significant delays for two different segments relevant for the waste management activities. Thus, an additional effort for negotiation with Project Board members for pending activities should be invested by the project team. In case of FBiH, IT waste management system is close to full operational functionality, while no activities on green logistic schemes have been initiated. In

No.	Conclusion
	case of RS decision on development of IT waste management system awaited adoption of the amendment to the Law on waste management of RS that happened quite recently. This means that development of IT waste management system in RS will be initiated by the beginning of 2021 along with revision of waste disposal fees in RS. This progress increase alignment of project progress towards achievement of targets defined for waste management and logistics. However, Project Board needs to steer further activities under this Component; having in mind the lack of decision regarding development of green logistic schemes in FBiH.
C6	Project Management and Governance: UrbanLED has suffered from sub-optimal management and governance. There have been a number of reasons for this, including the changes in project manager which have not favoured continuity, the absence of the CTA due to the travel restrictions caused by COVID-19 pandemic has deprived the project of expertise to drive change. However, the selection of project managers, and the wider management and governance of the project, has not taken sufficient account of the skills and expertise required to develop a functioning ESCO market. The management shortcomings mainly occurred due to the changes in perspectives and planning of the Project Board members institutions regarding the ESCO, PPP and IT system for waste management that cause delays in realization of project activities. Besides, project team invest a lot of time and efforts to achieve common ground regarding the approaches for implementation of core project activities. Although time consuming, such approach seems to be better option in order to reach sustainability of the project and to enhance sense of ownership over the main project outcomes. Being aware on management shortcomings, project engaged two additional team members in the last 5 months (project officer with technical background focused on ESCO and project clerk). Currently, project management structure has 2 project officers and project clerk which are supervised by the CCM Programme manager. Such decision was made in order to enhance synergies among UrbanLED, LowCarbon and GED projects.
С7	COVID-19 and UrbanLED's relevance and importance: The COVID-19 pandemic, and the related negative impact on business activity, revenues and employee incomes, along with the associated increase in state debt, means that finding financially efficient ways of advancing a green-based economic recovery becomes more important. In this respect, the project's work around finding models that can use reimbursable/loan-based financing where possible becomes even more important, as well as working to ensure the wider financing ecosystem can evolve (for example, finding ways to move the EFs away from their principal focus of grant disbursement). In this respect, the project's potential contribution to supporting a green-based recovering from COVID-19 has increased in significance. Still, it is worthwhile to mention EFs's obligations to participate in the economic recovery from the COVID-19 pandemic which increase the uncertainty regarding the EFs' ability to co-finance activities of the UrbanLED project.
C8	UrbanLED communication and visibility: While UrbanLED's has implemented communication activities and developed communications outputs, based on the communication strategy developed, municipalities have not been provided with a full overview of the project and its various activities that are beneficial for local communities no doubt in part due to the delays in realization of concrete infrastructure measures. Going forward, a clearer and more proactive and dynamic communications strategy and information flow to external is recommended (including more use of social media, newsletters, webinars and short online presentations covering all of the project's components equally. Concretely, it should be based on concrete outputs of the project (i.e. SECAPs developed, waste management plans with green logistic schemes which will

No.	Conclusion
	be developed, ESCO models to be developed, LCUD pilot investments to be implemented, and IT
	waste management systems).

Review Recommendations (Summary Table)

The table below summarises the mid-term review conclusions and all of the recommendations are addressed to UNDP and UrbanLed project staff and engaged consultants. All of the recommendations require immediate actions and approach to their execution is for the most part already set out presented in the project proposal.

Table 1b - Summary of Mid-term Review Recommendations

No.	Recommendation		
	Develop a short but well-researched scenario option(s) on how best to take UrbanLED forward. The project strategy should be revised in line with UNDP's adaptive management techniques in order to make clear work and time plan and to take the project forward. This should include: a. Ensuring the sustainability of financial mechanisms: A key issue in the options review and		
R1	scenario development is to assess to what extent does the piloting which will be supported by the project can assure sustainable implementation of ESCO mechanism in BiH market? Part of this reflection should involve revisiting the work of the CTA expert ⁵ regarding the proposed financing of small-scale projects and to accelerate a process of ESCO piloting using a small-scale projects approach, including the intensification of cooperation and exchange of experience with neighbouring countries that advanced with ESCO implementation. Besides, project needs to intensify consultation process with private sector representatives identified as potential ESCO companies in BiH. This should include organization of webinars and discussion sessions on the draft ESCOs already developed. Such approach should provide valuable inputs needed for further advocating to responsible institutions (namely ministries responsible for finance both at state and entity's levels) as a valuable segment to assure sustainability. When it comes to introduction of PPP, current climate within the country is unfavourable for such initiatives. Therefore, project strategy is aimed at provision of technical support needed for preparing analysis, assessments, recommendations so as to advocate for their future introduction. This activity has been realized in FBiH while the consent of Project Board institutions from RS is still pending. Project team will continue with discussions in this regard.		
	b. Focus on wider LCUD financial ecosystem: The scenario development should map out the LCUD financing ecosystem, and the needs, constraints and opportunities. This has not been done at this stage, mainly because of ESCO models which have not be developed yet. For example, banks are interested in the financing of low-carbon urban development projects including ESCOs, and are investing in analysing of the approach as well. However, basic information on the financial ecosystem is needed in order to propose a feasible financial mechanisms and possibilities for cooperation with financial institutions (e.g. EBRD, EIB, KfW) which have related credit lines. However, it should be emphasized that ESCO is included in		

⁵ Louis Phillipe Lavoie.

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No.	Recommendation					
			ment Framework, developed by LowCarbon project, which in a way could tempt to assure sustainability of ESCO concept in BiH.			
	c. COVID-19 Green Recovery: It is recommended that the scenario development conexplicit COVID-19 green recovery. The additional strain COVID-19 has placed of finances (increased health expenditure, employee support, cost of reduced business etc.) means that it is imperative that public finance is used efficiently had achieved leverage/catalytic effect. This means not giving expensive grant funding where reimfinancing can be deployed. Therefore, activities on introducing innovative financimense importance and COVID-19 economic consequences should be used a argument for their advocating at responsible institutions. Beyond the financial did UrbanLED could consider specific stimulus or green recovery dimensions.					
	:					
	e. Decision on technical assistance to support waste management and logistics (ass possibilities/directions in line with Project document/targets). Project face with signific delays for two different segments relevant for the waste management activities (Compon 3 of the Project). In case of FBiH, no activities on green logistic schemes have been initial while in case of RS – decision to initiate the development of IT waste management syst happened quite recently, after the adoption of the Law on waste management of Furthermore, decision to go with analysis of waste disposal fees in RS has been made quite recently as well. To be able to achieve the targets set for this component of the project make final decision on activities to be implemented under this Component. Having in make final progress, this refers to the decision whether to go with green logistic scheme.					
	To b	e actioned by:	UNDP UrbanLED project team			
		eframe:	December 2020 – February 2021			
R2	quest a no-cost extension. The project extension should be at least for a naddition to that, a new strategy on implementation should be adopted ogical framework and workplan). However, the new strategy should be in sal, its targets and indicators that are already set up. This is a clear task r and coordinators.					
	on o	development of IT ing of ESCOs plan	ent progress made, particularly regarding the initiation of activities in RS for waste management system, finalization of ESCOs in FBiH and RS, ned for 2021, there are enough arguments for optimism that planned shall be reached although with some delays in regard to the timeframe			

No.	Recommendation				
	planned originally. Therefore, it is anticipated that the project extension in the duration of months will be sufficient to finalize all activities of the project.				
	To be actioned by:	UNDP UrbanLED project team			
	Timeframe:	December 2020 – March 2021			
R3	appear that some project-facilitated inverse reductions, level of MI mid-term targets towal logframe indicator will tCO2eq direct emission	ew project strategy with the aim to reach the project's targets. It would lect targets as currently set up as too ambitious (e.g. target on amount of restment in LCUD (including co-financing), tCO2eq direct emissions RV system implementation). They need to further overview and justify the lards the achievable ones. Besides, MTR team noticed an omission in the lards the technical direct emissions reductions — instead of 18,592.5 has reductions calculated in the GEF tracking tool based on the annual direct the indicator was calculated based on the sum of direct and indirect			
	To be actioned by:	UNDP UrbanLED project team			
	Timeframe:	December 2020 – March 2021			
R4	project identify entitied finance, as important to be organize due to the system in FBiH (muninformation on its devention of FBiH are postponed during greater extent, and a	akeholders: During the initiation of activities regarding ESCO mechanisms, es' ministries of energy and finance, including the state-level ministry of stakeholders to be involved. Initial meetings were planned but not able to e COVID-19 situation. Project includes users of the IT waste management icipalities, cantonal services, private companies, etc.) and disseminate relopment. Trainings on the usage of the IT waste management system in use to the COVID-19 situation. There is scope to involve municipalities to a more structured involvement of at least some IFIs and possible other local commercial banks) should also be considered. UNDP UrbanLED project team			
	Timeframe:	December 2020 – March 2021			
R5	Project management: The project management and governance of UrbanLED will req significant overhaul and strengthening, in part influenced by the strategy and target results after the MTR. Depending also on the scale of synergies and increased cooperation with the project, one possible option might be that management of UrbanLED is more closely integ with the GCF project management (while retaining separate budget resourcing etc.), and power with an external specialist hired to drive the change and lead the development and deploy of ESCO and/or other innovative financial mechanisms. The cooperation between UrbanLED other projects (e.g. GCF, GED) should be coordinated by Programme Manager for CC Mitig that performs management and cooperation of all UNDP CO B&H Mitigation projects. There synergies and strengthen management of UrbanLED will be reached. Being award management shortcomings, project engaged two additional team members in the last 5 m (project officer with technical background focused on ESCO and project clerk). Currently, p management structure has 2 project officers and project clerk which are supervised by the Programme manager. Such decision was made in order to enhance synergies among Urba LowCarbon and GED projects.				

No.	Recommendation			
	To be actioned by:	UNDP UrbanLED project team		
	Timeframe:	December 2020 – January 2021		
	-	tion and visibility: UrbanLED's communication to external stakeholders		
R6	understanding of the p drafts and policy pape awareness-raising effor important stakeholder	ned, and in particular towards municipalities, to allow them to have a full project and its various activities (including for example prepared legislation ers). Going forward this should include a dedicated communications and ort, focused on SECAPs and ESCO, for municipalities as a distinct and r group. Besides, UrbanLED, LowCarbon and GED projects should take a arch toward municipalities and secure coordination.		
	To be actioned by:	UNDP UrbanLED project team		
	Timeframe:	December 2020 – February 2021		
R7	Establish a close connection between ESCO projects and EMIS. It is important that EMIS covers ESCOs and low-carbon urban development projects energy savings and emissions reduction for the monitoring and verification, including pilot LCUD projects. Therefore, International Consultant for development of ESCO financial mechanisms in BiH shall finalize the Guidebook or ESCO model for EMIS which should be further tested and discussed on regional level.			
	To be actioned by:	UNDP UrbanLED project team		
	Timeframe:	December 2020 – February 2021		

2 ABOUT THIS MID-TERM REVIEW

About this Report

This document sets out the draft Mid-Term Review (MTR) report for the *Mid Term Review of the UNDP GEF Project: Catalysing Environmental Finance for Low-Carbon Urban Development.* The Mid Term Review process is conducted in line with the GEF Monitoring and Evaluation Policy⁶ and the MTR report is structured as follows:

- Section 2 (this section) sets out the background context, some summary information about the UrbanLED project, and the evaluation objectives, scope and work programme;
- Section 3 sets out the Project Development Context
- Section 4 sets out the Review Findings
- Section 5 sets out the Review Conclusions and Recommendations
- Section 6 sets out the Report Annexes.

About the UNDP GEF Project: Catalysing Environmental Finance for Low-Carbon Urban Development

The rationale of the URBANLED project lies in the legacy of neglect and under-investment in urban infrastructure in BiH, including public and residential buildings, energy systems and utilities, waste management, and transport, are the significant modernization, upgrading and expansion needs that emanate from this under-investment. Financed through the GEF trust fund (USD 2.37 mil.) and parallel co-financing (USD 44.42 mil.), this full-sized GEF project is a five-year project (December 2017 - December 2022) and is directly implemented by UNDP Bosnia and Herzegovina Country Office.

An important part of the project's rationale is to mitigate the CO2 emissions consequences of this legacy of neglect and under-investment, not only in terms of the relatively sub-standard energy efficiency performance but also their relative significance as the largest energy users and GHG emission sources in municipalities in BiH. Thus, through the modernization, upgrade and expansion of municipal buildings, infrastructure, and services in BiH through leveraging investment for transformational shift towards low-carbon urban development, the project is expected to improve the quality of urban life and achieve a range of important local and global environmental and sustainable development benefits.

The 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.⁷ 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, as set out in Table 1 below.

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⁶ http://www.thegef.org/gef/Evaluation%20Policy%202010

 $^{^{\}rm 7}$ Description of the Action – Project Implementation review, UNDP, 2019.

Table 2.1 - Overview Project Structure by Core Component

Component	Focus	Core Activity
Component (Environmental Finance		Project support to key environmental finance institutions (i.e. environmental funds) to establish innovative financial mechanisms for LCUD
Component 2	Local Capacity Support & Engagement - public facilities and utilities	Engagement at the local level with relevant public authorities to help build their capacities to identify, carry out and monitor low-carbon projects in public facilities and utilities
Component 3	Local Capacity Support & Engagement - Waste management and logistics/transport	Engagement at the local level with relevant public authorities to help build their capacities to identify, carry out and monitor low-carbon projects in waste management and logistics/transport.
Component 4	LCUD Enabling Environment	Tackling gaps in the LCUD enabling environment 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. In addition, national awareness raising, and an advocacy campaign is conducted to secure public support and promote behavioural changes toward low-carbon urban living.

Regarding **project stakeholders and governance and ownership arrangements**, the Project Board is comprised of the following institutions: Ministry of Foreign Trade and Economic Relations of BiH (this is also a senior beneficiary institution of the project), Ministry of Spatial Planning, Civil Engineering and Ecology of Republika Srpska, Ministry of Environment and Tourism of Federation of BiH, Fund for Environmental Protection and Energy Efficiency of Republika Srpska and Fund for Environmental Protection of BiH.

Review Objectives and Scope

As per the ToR, this mid-term review includes generating an assessment of the up-to-date effectiveness and efficiency of project activities in relation to the stated objective. The MTR assessed four categories of project progress — i) project strategy, ii) progress towards results, iii Project Implementation and Adaptive Management, and iv) sustainability.

Table 2.2 - Overview MTR Categories of Progress and Sub-Areas

Category	Focus Areas/Issues
Project Strategy	 Project Design: Review the problem addressed by the project and the underlying assumptions (including possible effect of any incorrect assumptions or changes to the context to achieving the targeted project results). Review the relevance of the project strategy and assess whether it provides the most effective route towards expected/intended results. Review how the project addresses country priorities.

Category	Focus Areas/Issues
	 Review decision-making processes. Results Framework/Logframe: Undertake a critical analysis of the project's logframe indicators and targets, assess how "SMART" ness' of the midterm and end-of-project targets⁸, and suggest specific amendments/revisions to the targets and indicators as necessary. Examine if progress so far has led to or could in the future catalyse beneficial development effects (i.e. income generation, gender equality and women's empowerment, improved governance etc) that should be included in the project results framework and monitored on an annual basis.
Progress Towards Results	 Review the logframe indicators against progress made towards the end-of-project targets; populate the Progress Towards Results Matrix⁹; colour code progress in a "traffic light system" based on the level of progress achieved; assign a rating on progress for the project objective and each outcome; make recommendations from the areas marked as "not on target to be achieved" (red). Compare and analyse the GEF Tracking Tool at the Baseline with the one completed right before the Midterm Review. Identify remaining barriers to achieving the project objective. By reviewing the aspects of the project that have already been successful, identify ways in which the project can further expand these benefits.
Project Implementation and Adaptive Management	Assessment of the following categories of project progress ¹⁰ : Management Arrangements; Work Planning; Accessibility Finance and co-finance; Project-level monitoring and evaluation systems; Stakeholder Engagement; Reporting; Communications;
Sustainability	Assessment of overall risks to project sustainability factors w.r.t. following 4 categories: • Financial risks to sustainability; • Socio-economic risks to sustainability; • Institutional framework and governance risks to sustainability; • Environmental risks to sustainability;

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⁸ SMART - Specific, Measurable, Attainable, Realistic and Timebound.

⁹ As described in the *Guidance for Conducting Midterm Reviews of UNDP-Supported, GEF-Financed Projects.*

¹⁰ Idem.

3 PROJECT DEVELOPMENT CONTEXT



Section Guide

This section sets out the principal review findings with regard to:

- Project development context (Section 3.1)
- Problems addressed by the Project (Section 3.2)
- Project description and strategy (Section 3.3)
- Project implementation arrangements (Section 3.4)
- Project timing and milestones (Section 3.5)
- Main stakeholders (Section 3.6)

Development Context

UrbanLED's rationale is rooted in the decades of under-investment and under-maintenance in BiH's urban infrastructure, including not only public and residential buildings but also energy systems and utilities, waste management, and transport. This has created a separation where significant investment, upgrading and modernisation in urban infrastructure is now urgently required.

This legacy of under-investment has also had negative environmental effects, contributing to a steady increase in national GHG emissions, mainly due to energy use in public facilities - the largest energy users and GHG emission sources in municipalities in BiH. This legacy has also created a development brake, with outdated and energy-inefficient urban infrastructure constraining economic development and growth (e.g. transport infrastructure) but also constraining quality of life in urban centres and making these centres less attractive, for example for internationally mobile investment as well as in terms of reduced attractiveness to international companies looking for investment locations, where the quality of the urban offer and related amenities for company staff/expatriates are important considerations. Thus, modernising, upgrading and expanding municipal buildings, infrastructure, and services in BiH will not only improve the quality of urban life and bring environmental benefits, but also support economic growth and wider sustainable development.

The country's institutional context also makes it difficult to start addressing the above infrastructure deficits, given its highly-decentralized nature that comprises some 145 local governments located in two entities, Republika Srpska (RS) and Federation of Bosnia and Herzegovina (FBiH), as well as the separate administrative unit of Brčko District (BD). This challenge of a complex institutional tapestry is further accentuated by the lack of institutional capacities for enacting and implementing policy, legislative and strategic documents to strengthen environmental protection and reduce carbon emissions, such as regulating innovative concepts and mechanisms of environmental protection and climate change mitigation.

BiH has been developing its policy framework, in particular with regard to international frameworks, starting with its ratification of the United Nations Framework Convention on Climate Change in 2000 (as a non-Annex I party) and has thus far submitted its Initial and Second National Communications, with the Third National Communication under finalisation. In 2013, the Government adopted the Strategy for Climate Change Adaptation and Low Emission Development Strategy for Bosnia and Herzegovina and the National Emission Reduction Plan for BiH, and in April 2016 signed the Paris Agreement (with ratification following in October 2016) and thereby developed its Nationally Determined Contribution (NDC). In the NDC, there is explicit acknowledgement of the potential contribution of the country's public sector for GHG emission reduction,

while also stating international financing support will be required to increase emission reduction amount and develop a sustainable system for public building renovation.

At the sub-national level, there is also understanding among local authorities of the importance of starting the transition to low-carbon urban development. The EU Covenant of Mayors initiative has been an important role in this process, with a number of BiH municipalities having signed up to become signatory municipalities of the Covenant of Mayors initiative and under this initiative developing, adopting and implementing their own Sustainable Energy and Climate Action Plan (SECAP), which has involved these signatory municipalities have set up specific urban GHG emission reduction targets, which cumulatively represent a commitment to reduce the urban carbon footprint in BiH by 870,000 tCO₂ by 2030.

There is also recognition by the government of the need to improve energy efficiency to ensure sustainable and low carbon development, with BiH for example being a signatory to the he Energy Community Treaty in 2009 and to the International Energy Charter in 2016. This recognition is operationalised in BiH's National Energy Efficiency Action Plan (NEEAP), where an indicative energy savings of 9% by 2018 was targeted (and where BiH's improved energy efficiency performance in public buildings and public sector utilities is a priority area)¹¹, as well as emphasising the need for the public sector to lead by example as a low-carbon urban transformation actor.

The project's origins also rely on an acknowledgement that involvement of authorities from all levels of government will be required for implementing low carbon urban development in BiH, as well as openness to take on board new concepts and financial and operational mechanisms that require new ways of collaboration between the public and private spheres. The project formulation has analysed that creating an effective business model for low-carbon urban projects preparation and implementation supported by affordable financing for the public sector, several barriers must first be addressed. These barriers can be grouped into three main categories: a) financial, including limited access to finance and low financial returns; b) insufficient local capacities; and c) lack of a broader enabling environment.

Problems Addressed by the Project

URBANLED has sought to address a number of key problems:

- Limited access to finance and low financial returns (Municipal authorities' and SMEs' poor financial standing, high level of debt and lack of credit-worthiness constrain their ability to self-finance and leverage third-party financing for infrastructural LCUD projects. Limited availability of long-term financing at affordable rates: financing from IFIs and commercial banks does not match the scale and risk/return profile of infrastructural LCUD projects and municipal borrowers. EFs' revenue base (and capacity and relevant regulatory framework as noted later in this table), are inadequate and do not allow scaling-up financing for infrastructural LCUD projects. Reduced financial returns from investment in low-carbon measures in public sector (in part due to prevalence of cheap domestic coal as baseline heating source, as well as widespread under-heating and inadequate building maintenance practices) making these investments unattractive for private investors.
- Inadequate local capacities for LCUD (public facilities and utilities) (Lack of capacity to prepare and implement technically and economically feasible projects, as well as incorporate low-carbon considerations into urban development plans and programs, in particular in the key resourceconsuming/emission-producing urban sectors, such as public facilities and utilities. There is no system in

¹¹ Improved energy efficiency performance in public buildings and public sector utilities was expected to contribute an annual reduction in energy consumption of 1,900 GWh.

Review Report

place to systematically collect and analyse information on resources use/GHG emissions in cities, which limits the ability of municipal authorities to identify and pursue the most cost-effective climate change mitigation actions.)

• Lack of enabling policy and regulatory environment for LCUD (Enforcement of relevant environmental policies and regulations (e.g. laws and by-laws on energy efficiency, regulation on the technical requirements for thermal protection of buildings and rational use of energy, waste management strategy, etc.) is patchy due to complex administrative and governance structure, as well as because of the lack of capacities among relevant national/sub-national authorities to effectively oversee and monitor their implementation. City managers, municipalities and urban residents have not yet embraced the principles of low-carbon behaviour. They lack basic awareness and understanding about resource efficiency, sustainable consumption as well as environmental and health impacts resulting from urban emissions.)

Project Description and Strategy

The objective of the project is to leverage investment for transformational shift towards LCUD in BiH thereby promoting safer, cleaner and healthier cities, and reducing GHG emissions. Building on UNDP's prior work with the Environmental Funds, the project foresees support to the design of an innovative financing mechanism that will help a gradual shift from predominantly grant-based financing of LCUD towards an ESCObased model whereby public subsidies (grants) are used to address specific structural, technical and financial barriers in BiH. At the pilot stage as well as the implementation of full-scale EE projects, the ESCO business model cannot finance a long-term debt of EE projects having a payback period longer than two or three years. Such a long-term debt is possible on a mature market after ESCO(s) and the project beneficiaries demonstrated the viability and cost-effectiveness of EE investments and this should be taken into consideration. Furthermore, building on earlier UNDP-supported efforts to promote Energy Management Information System (EMIS) in public buildings, the project aims expanding the scale and scope of its application and facilitate implementation of low-carbon measures in public facilities and utilities (e.g. public lighting, water supply and sanitation system – large energy users with high potential for resources saving). The project addresses identified shortcomings in municipal capacities for LCUD in the waste management and logistic sector, in particular with development of a functional MRV system and optimal transport collection routes for the waste management sector to minimize emissions and improve effectiveness; including the development of an IT-based system for waste data collection and analysis, assessing feasibility of waste collection route optimization, and capacity buildings at the level of municipalities, cantons in FBiH and entities and relevant Ministries for MRV implementation. Moreover, the project 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.

The project is consisted of four components with related expected outcomes and outputs:

• Component 1 (Innovative Financing Mechanism for Implementation of Low-Carbon Urban Development Concept (LCUD)) has two expected outcomes: Outcome 1.1: Strengthened public capacities to programme and monitor environmental finance for LCUD and Outcome 1.2: Increased and diversified sources and modalities of public investment in LCUD. The related expected outputs for this component are: Output 1.1: Regulations for polluter pays principle developed; Output 1.2: Financial mechanism (ESCO Funding window) established at EFs and capitalized with EF's own finance; Output 1.3: At least 40 staff of relevant institutions gaining first-hand experience (through trainings) on innovative finance

options for LCUD and at least 100 representatives of relevant SMEs informed about the ESCO-support mechanism; Output 1.4: Contractual and implementation arrangements for repayment mechanism established and Output 1.5: Measurement, Reporting and Verification (MRV) for implementation of ESCO-support mechanism established.

- Component 2 Low-carbon public facilities and utilities has two expected outcomes: Outcome 2.1: Strengthened capacities of municipal managers, companies and utilities to monitor resources use, prepare and implement feasible infrastructural LCUD projects and Outcome 2.2: Reduced GHG emissions from pilot investment. The related expected outputs for this component are: Output 2.1: EMIS expanded to cover all types of public facilities and resources use in public utilities (1,500 buildings); Output 2.2: Municipal staff trained and equipped to apply EMIS (1,500 end-users trained); Output 2.3: 45 LCUD investment projects in public facilities and utilities implemented; and Output 2.4: At least 15 SECAPs and/other relevant municipal planning documents prepared to scale-up piloted investment.
- Component 3 Low-carbon waste management and logistics (transport) has two expected outcomes: Outcome 3.1: Reduced GHG emissions from improved waste management system as a result of waste minimization and Outcome 3.2: Reduced GHG emissions from improved waste management system as a result of waste collection route optimization. The related expected outputs for this component are: Output 3.1: MRV system for waste sector developed, institutionalized and legally recognized; Output 3.2: Municipal managers (45) and Environmental Fund and environmental Ministry's staff (10) trained and equipped with skills and tools to improve and monitor the waste management system; Output 3.3: Reformed waste fee system introduced; Output 3.4 Green logistic scheme for municipal waste recycling designed and piloted in 4 municipalities
- Component 4 National and sector policies, institutional coordination and awareness raising on LCUD has
 two expected outcomes: Outcome 4.1: LCUD-related policies adopted and institutional coordination
 strengthened and Outcome 4.2: Increased awareness of urban dwellers regarding LCUDs. The related
 expected outputs for this component are: Output 4.1: Harmonized environmental related rules and
 regulations developed and enacted across BiH and Output 4.2: National awareness—raising campaign
 conducted reaching out to at least 750,000 urban citizens.

Project Implementation Arrangements

Regarding **project stakeholders and governance and ownership arrangements**, the Project Board is comprised of the following institutions: Ministry of Foreign Trade and Economic Relations of BiH (this is also a senior beneficiary institution of the project), Ministry of Spatial Planning, Civil Engineering and Ecology of Republika Srpska, Ministry of Environment and Tourism of Federation of BiH, Fund for Environmental Protection and Energy Efficiency of Republika Srpska and Fund for Environmental Protection of BiH. The Project Board typically meets on a quarterly basis, for example with its most recent meetings having taken place in December 2019, March 2020 and June 2020.

UNDP is the **Implementing Partner** for UrbanLed, and thus responsible for overall project management, and the project is implemented under the UNDP's Direct Implementation Modality (DIM)¹², with the DIM implementation modality having been chosen due to a number of factors that would make partner country/local implementation a challenging implementation option¹³. Another important factor was that BiH

¹² According to the Standard Basic Assistance Agreement between UNDP and the Government of *B&H* (SBAA of 7 December 1995), and the Country Program Action Plan (CPAP)

¹³ These include the complexity of BiH's administrative and governance structure and its public sector institutional structure, as well as the complexity of its policy and financing framework for public infrastructure.

does not have an entity with the requisite capacities and power of authority to ensure effective dialogue, coordination and synchronization of tasks between the two entities. Regarding project management, the project is run by a UNDP-appointed project manager who has operational management responsibility for the project, within the framework set out by the Project Board.

Project Timing and Milestones

The table below sets out the key project dates and milestones:

Table 3.1 – Overview Project Dates and Milestones

Key Project Dates/Milestones			
PIF Approval Date	Jun 8, 2016		
CEO Endorsement Date	Aug 2, 2017		
Project Document Signature Date (project start 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		
Original Planned Closing Date	Dec 1, 2022		
Revised Planned Closing Date	To be decided		

Main Stakeholders

The principal stakeholders of URBANLED are:

- Ministry of Foreign Trade and Economic Relations of BiH (MOFTER)
- Ministry of Environment and Tourism of Federation of BiH (MET FBiH)
- Ministry of Spatial Planning, Construction, and Ecology of Republika Srpska (MSPCE RS),
- Environmental Fund of the Federation of Bosnia and Herzegovina
- Fund for Environmental Protection and Energy Efficiency of Republika Srpska
- Ministry of Energy, Mining and Industry of FBiH
- Ministry of Finance and Treasury of BiH
- Municipalities.

4 MAIN FINDINGS



Section Guide

This section sets out the principal review findings with regard to:

- Project Strategy (Section 4.1)
- Progress towards Results (Section 4.2)
- Project Implementation and Adaptive Management (Section 4.3)
- Project Sustainability (Section 4.4)

Project Strategy – Review Findings

Project Design

The project design is of very good quality, taking into account previous experiences, complex situation in Bosnia and Herzegovina, in particular the lack of institutional capacities to adopt and implement relevant strategic and legislative documents which, inter alia, regulates implementation of innovative concepts of environmental protection and climate change mitigation, including low-carbon urban development (LCUD). It is an ambitious design combining two large sectors (energy and waste management), intervention areas (e.g. development of financial mechanism, capacity buildings, development of policies and legislation), requiring strong cooperation with partners, solid assessment of the baseline and set-up of realistic targets. The project design reflects need for strong technical expertise, extensive knowledge of the project areas, and context in governments and administration to achieve local ownership of expected outcomes.

Furthermore, 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 modernisation 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.

To remove the three main groups of barriers related to inadequate access to finance, local capacities and policy and regulatory framework for LCUD, the project adopts a three-pronged approach, the project aims 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, it supports design and adoption of policies and regulations to enable the scale-up low-carbon investment at the entity/sub-national level the project will work with relevant public authorities (Component 4). In addition, the project foresees national awareness raising and an advocacy campaign that should secure a public support and promote behavioural changes towards low-carbon urban living.

The project is built upon UNDP's prior work with EFs and it aims to support the design of an innovative financing mechanism that will support a gradual shift from predominantly grant-based financing of LCUD towards an ESCO-based model whereby public subsidies (grants) are used to address specific structural, technical and financial barriers in BiH. Moreover, the project is built (Component 2) on earlier UNDP-

supported efforts to promote Energy Management Information System (EMIS) in public buildings and the project aims to expand the scale and scope of its application and facilitate implementation of low-carbon measures in public facilities and utilities (e.g. public lighting, water supply and sanitation system - large energy users with high potential for resources saving). Furthermore, the project foresees development of a functional Measurement, Reporting and Verification (MRV) system and optimal transport collection routes that should be introduced for the waste management sector to minimize emissions and improve effectiveness; including the development of an IT-based system for waste data collection and analysis (WMIS), assessing feasibility of waste collection route optimization, and capacity buildings at the level of municipalities, cantons in FBiH and entities and relevant Ministries for MRV implementation. In addition, the project (Component 4) addresses gaps in the enabling policy environment for LCUD at state and entity levels and 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. In the interview with representatives of Ministries, the project design is marked as very wide with broad spectrum of activities and it should be more precise in order to achieve clear tangible results, to specify project's priorities, to improve synchronisation of legal framework and polices between entities, to improve visibility of a project as a whole and its components, to improve coordination between partners and key stakeholders.

Results Framework/Logframe

As part of this midterm review, the project results framework was assessed against "SMART" criteria, whether the indicators and targets were sufficiently specific, measurable, achievable, relevant, and time bound. With respect to being time-bound, the end targets were designed to be achieved by the end of the 5-year duration project. In the table below, the critical analyse of the project's logframe indicators and targets is undertaken. There is assessed how "SMART" the end-of-project targets are (SMART: Specific, Measurable, Achievable, Relevant, Time-Bound) and suggest specific amendments/revisions to the targets and indicators as necessary. The following marking is used for assessment of the objectives and outcomes.

Table 4.1: Overview Smart Assessment of UrbanLed Objectives and Outcomes

Green: SMART criteria compliant	Yellow: questionably compliant with	Red: not compliant with SMART
	SMART criteria	criteria)

Indicator	End-of-project target		MTR SMART analysis			
		S	М	Α	R	Т
Objective: to leverage investment in low-car and healthier cities and reducing GHG emiss	bon urban development (LCUD) in BiH thereby p ions	romo	oting	safer	, clea	ner,
Number of new development partnerships with funding for improved energy efficiency and/or sustainable energy solutions targeting underserved communities/groups and women.	 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 	G	G	G	G	G
Amount of project-facilitated investment in LCUD	40 mil USD	G	G	R	R	R
tCO2eq direct emissions reductions (which are attributable to the project-facilitated investments in LCUD made during the project's supervised implementation period,	61,975.00 tCO2eq	G	Υ	Υ	Y	Υ

investments Number of project beneficiaries, including % 15,000 (including 60% - women) Component 1: Innovative Financing Mechanisms for Implementation of Low-Carbon Urban Development Concept (LCUD) Status and level of capitalization of the ESCO Funds established and capitalized with at G G R R	G T R
of women Component 1: Innovative Financing Mechanisms for Implementation of Low-Carbon Urban Development Concept (LCUD) S M A R	Т
Component 1: Innovative Financing Mechanisms for Implementation of Low-Carbon Urban Development Concept (LCUD)	
Development Concept (LCUD)	
Development Concept (LCUD)	R
Status and level of capitalization of the ESCO Funds established and capitalized with at GO GO ROLL REPORT OF THE RESEARCH AND ADDRESS OF THE	R
financial mechanism (ESCO Funding least 24 mil US\$	
window)	
Number of staff at EFs and other 40 (20 women) G G G G	G
stakeholders trained on the operation of	
ESCO Fund and other innovative financing	
mechanisms (including number of women)	
Status of MRV system is both operational in both G G G G	G
entities	
Component 2: Low-carbon public buildings and utilities	
Number of public facilities and utilities 3,800 G G G G	G
covered by EMIS on municipal level	
Number of people trained in energy 1,500 (30%) G G G G	G
management and LCUD project design and	
implementation (and % women)	
Number of infrastructural LCUD projects 45 G G Y Y	Υ
implemented	
Component 3: Low-carbon waste management and (transport)	
Status of MRV for waste sector MRV system established (data collection, G G Y Y	Υ
assessment, archive and evaluation),	
institutionalized and legally recognized	
responsibility for MRV in place	
Reduction in fuel consumption from the 15% reduction in all 6 pilot municipalities G G Y Y	Υ
municipal waste transportation (% to	
baseline) in pilot municipalities	
Component 4: National and sectoral policies, institutional coordination and awareness raising on low carbon un	oan
development	
Status of relevant LCUD enabling rules and Harmonized LCUD-enabling rules and G G G G	Υ
regulations developed and enacted across BiH	
Number of people reached out to by 750,000 (at least 50% women) G G G G	G
national LCUD awareness raising campaign	
(refer to Annex B of the Project Document	
for details on how this will be measured)	

The project set-up ambitious objective and indicators regarding amount of investment, direct reduction of CO2 emissions and number of LCUD projects implemented. These goals are characterised as unlikely to be significantly achieved during the project implementation, unrealistic and not time bound, in particular due to reasons that no tangible results and targets achieved by the mid-term period. In addition, the measurement of CO2 emission reduction is questionable because there is no yet clear calculation and monitoring approach in place. Besides, MTR team noticed an omission in the indicator which defines tCO2eq direct emissions reductions — instead of 18,592.5 (mid-term) and 61,975.00 (end of project) tCO2eq direct emissions reductions calculated in the GEF tracking tool based on the annual direct emission reductions, the indicator was calculated based on the sum. Furthermore, the achievability, measurement and time bond for development of MRV system, reduction of fuel consumption from the municipal waste transportation, status of relevant LCUD enabling rules and regulations are questionable due to delays in implementation of related actions.

Broader development and gender aspects of the project are being monitored effectively. However, due to the delays in implementation of key project activities aimed at targeting socio-economic benefits and services for women (i.e. implementation of LCUD infrastructure projects), for now Project failed to deliver concrete results regarding addressing the different needs of men and women, changed norms, values and power structures, transformation of challenging gender inequalities and discrimination. Furthermore, following the structure of the Annex L (Gender assessment and action plan) of the Project document, project succeeded to deliver some results relevant for the following aspects of gender equality:

- Engage women for unique perspectives This mostly refer to the consultation processes with relevant stakeholders, where women from institutions constituting Project Board (Ministry of Foreign Trade and Economic Relations of BiH, RS Ministry of Spatial Planning, Civil Engineering and Ecology, Federal Ministry of Environment and Tourism, Environmental Fund of FBiH and Environmental and Energy Efficiency Fund of RS) took active role and carry forward with critical insights, perspective and knowledge that significantly supported the activities aimed at proper introduction of low-carbon urban development project. This is reflected through identification of needs in terms of development of regulations (laws and by-laws) in relation to introduction of LCUD concept in BiH and active participation in its development and activities implemented in the development of IT system for waste management in FBiH female representatives of the Environmental Fund of FBiH took proactive role and are deeply involved in the entire process.
- Empower women: This refers to activities aimed at assurance of equal participation of women in activities aimed at capacity strengthening of municipal staff. For now, this has been addressed through trainings on EMIS usage where 45% of municipal staff attended the trainings were females.
- Data collection: This mostly refer to the activities implemented in order to secure balanced number of women and men participating in all aspects of the project. For example, while organizing the focus groups and opinion surveys on low-carbon urban development, online survey was conducted on a sample of 1,000 people living in urban areas in BiH (50% of the sample includes female citizens). Focus groups will be organized in three largest cities of BiH (Sarajevo, Banja Luka and Mostar) with two groups of minimum 10 participants per focus group (at least 50% of female participants). This approach has been utilized in order to capture women's perspectives and knowledge regarding this concept.
- Awareness raising: Focus groups and opinion surveys have been designed against specific gender-related indicators (with 50% female participants) in order to collect gender-specific information on understanding the low-carbon urban development concept by BiH citizens.

Both in promotional materials and social media contents, images of man and women are equally used in various aspects of low-carbon urban development to show that man and women have a role in everyday activities relevant for the LCUD concept.

Progress towards Results – Review Findings

The following are the MTR findings related to progress towards results by component, outcome and outputs, as appropriate:

The MTR assessment and rating are based upon the review of project implementation reports, additional country reports and interviews. Assessments in this table are based on the current end date of the project (that is, not factoring in a no-cost extension).

Table 4.2: Progress Towards Results Matrix (achievement of outcomes against end-of-project targets)

MLA = Midterm level and assessment - Indicator Assessment Key (Legend):

Gre	en	A chieved	Yellow	On target to be achieved	AR = Achievement rating - Progress towards results rating scale: Highly satisfactory (HS);
Red	t	Not on target to be achieved			Satisfactory (S); Moderately satisfactory (MS); Moderately unsatisfactory (MU)
					Unsatisfactory (U); Highly unsatisfactory (HU).

Indicator	Baseline Level	Midterm Target	End-of-Project Target	Cumulative Progress Reported	MLA	AR	Justification for Rating		
Objective:	Objective: To leverage investment in low-carbon urban development (LCUD) in BiH thereby promoting safer, cleaner, and healthier cities and reducing GHG emissions								
No. new development partnerships with funding for improved energy efficiency and/or sustainable energy solutions targeting underserved communities/gro ups and women.	N/a	2 (with Environ- mental 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	Based on the principles of adaptive management, project intensified activities aimed at establishment of development partnerships; both with entities' Environmental Funds (hereinafter EFs) and municipalities. Project provided technical assistance for preparation of draft Rulebook on Energy Service Contracting and Implementation/Energy Performance Contract for FBiH. As a result of this activity, local consultant for development of Energy Performance / Energy Service contracts (hereinafter EPC/ESC) and analysis of potential roles of EF FBiH in ESCO financial mechanism has been engaged. Along with these activities, collaboration with Ministry of Energy, Mining and Industry of Federation of Bosnia and Herzegovina and State Ministry of Finance of the and Treasury on creating the preconditions for introduction of ESCO have been intensified. In case of Republika Srpska 4 local consultants (2 economists; one with expertise in public finance analysis and other with expertise in financial risk assessments; legal expert and engineer) have been engaged for development of ESCO financial mechanism in RS. It is planned for ESCO model to	Yellow	MS	The partnership with the Environmental Funds entities has been established including foreseen establishment of ESCO working group consisting of entity and state ministries for finance, Ministry of Energy, Mining and Industry Federation of Bosnia and Herzegovina, Environmental Fund of Federation of Bosnia and Herzegovina, Ministry of Foreign Trade and Economic Relations of BiH and UNDP Project. Additionally, it is planned to initiate the piloting of ESCO contract in FBiH in 2020 based on the financial agreement made with EF FBiH. Based on the status of activities related to the different aspects of ESCO financial mechanism, implemented by the GED, UrbanLED and Low Carbon projects of the E&E sector of UNDP in BiH, it has been decided that the support provided by the international consultant should be aimed at		

Indicator	Baseline Level	Midterm Target	End-of-Project Target	Cumulative Progress Reported	MLA	AR	Justification for Rating
		10900	i i i go	be developed by mid-November while first ESCO contracts			the following: Development of ESCO module
				should be signed by the end of 2020.			as an important segment of Energy
				In case of the International Consultant for the development			Management Information System (EMIS);
				of the financial mechanism and development of regulations			Development of criteria for selection of
				on polluter pays principles, tasks defined in the contract			infrastructure projects to be financed;
				referred to the development of necessary regulations for			Development/amendment of the relevant
				instituting polluters pay principle (PPP) aiming to improve			legislative frameworks for establishment of
				the system for collecting PPP fees by entities' Environmental			ESCO mechanisms in FBiH and RS;
				Funds (EFs) and to develop a detailed financial mechanism			Development of ESCO model within the
				for the low-carbon urban development (LCUD) projects			National Investment Framework (NIF) for
				which represent an ESCO funding window within entities'			Low-Carbon Public Buildings; Development
				EFs.			of guidelines and modules for ESCO
				However, circumstances in the country are unfavourable for			trainings. In Republika Srpska, four local
				a proper introduction of PPP and thorough reforms need to			consultants (two economists; one with
				be implemented in this regard. Therefore, a certain number			expertise in public finance analysis and other
				of tasks of international consultant could not be executed to			with expertise in financial risk assessments;
				the extent defined by this contract. Furthermore, occasions			legal expert and engineer) have been
				related to establishment of ESCO financial mechanisms in			engaged for development of ESCO financial
				FBiH and RS significantly changed, both substantially and in			mechanism in RS. It is planned for ESCO
				terms of time-frame.			model to be developed by mid-November
				Therefore, based on the mutual agreement, this contract			while first ESCO contracts should be signed
				was terminated with the effective date of 8th of May, 2020.			by the end of 2020. In case of the
				UrbanLED Project team finalized the issuance of the new			International Consultant for the
				contract for international consultant which is focused on			development of the financial mechanism
				ESCO mechanism exclusively. When it comes to the			and development of regulations on polluter
				partnerships with municipalities, Sustainable Energy and			pays principles, tasks defined in the contract
				Climate Action Plans (SECAPs) are finalized in course of July			referred to the development of necessary
				and August 2020 (deadline has been extended due to the			regulations for instituting polluters pay
				COVID-19 pandemic) and five SECAPs were adopted by the			principle (PPP) aiming to improve the system
				local communities.			for collecting PPP fees by entities' EFs and to
				The Project organized public call for municipalities in RS for			develop a detailed financial mechanism for
				preparation of waste management plans with green logistic			the LCUD projects which represent an ESCO
				schemes for waste management. Four municipalities			funding window within entities' EFs.

Indicator	Baseline Level	Midterm Target	End-of-Project Target	Cumulative Progress Reported	MLA	AR	Justification for Rating
				(Trebinje, Zvornik, Bijeljina and Doboj) have been selected			However, circumstances in the country are
				and in forthcoming period ToRs for 6 experts (senior and			unfavourable for a proper introduction of
				junior environmental experts, economist, legal expert, GIS			PPP and thorough reforms need to be
				expert and mechanical engineer) will be announced.			implemented in this regard. Therefore, a
				Selected municipalities submitted their consents for			certain number of tasks of international
				proposed co-financing.			consultant could not be executed to the
							extent defined by this contract.
							Furthermore, occasions related to
							establishment of ESCO financial mechanisms
							in FBiH and RS significantly changed, both
							substantially and in terms of time-frame. Therefore, based on the mutual agreement,
							this contract was terminated with the
							effective date of 8th of May, 2020.
							UrbanLED Project team finalized the
							issuance of the new contract for
							international consultant which will be
							focused on ESCO mechanism exclusively.
							International consultant will closely
							collaborate with local consultants engaged
							for development of ESCO mechanisms in RS
							and FBiH. The partnerships with
							municipalities are well developed. 15
							Sustainable Energy and Climate Action Plans
							(hereinafter SECAPs) are finalized by the end
							of August 2020 and five SECAPs were
							adopted by the municipal assemblies (Doboj,
							Gradiška, Kotor Varoš, Laktaši, Odžak) so far.
							SECAPs will be used also as a guide for
							selection and implementation of ESCO pilot
							infrastructure projects.
							The Project organized public call for
							municipalities in RS for preparation of waste

Indicator	Baseline Level	Midterm Target	End-of-Project Target	Cumulative Progress Reported	MLA	AR	Justification for Rating
							management plans with green logistic schemes for waste management. 4 municipalities (Trebinje, Zvornik, Bijeljina and Doboj) have been selected and in forthcoming period ToRs for 6 experts (senior and junior environmental experts, economist, legal expert, GIS expert and mechanical engineer) will be announced. Green logistic schemes for waste management should result with concrete proposal for infrastructure measures with cost estimates and estimated time frame for their implementation and impacts on GHG emission reduction (with estimated reduction potential). These documents will be developed by July 2021 after which the realization of infrastructure projects will be initiated. For both development of documents and realization of infrastructure projects in waste management sector, cofinancing of selected municipalities with at least 30% is planned. Selected municipalities submitted their consents for proposed cofinancing. Further steps will be agreed in forthcoming period.
Amount of project-facilitated investment in LCUD	0	15 mil USD	40 mil USD	The development of financial mechanisms has been initiated quite recently. The initiation phase implies selection of two local consultants (for development of PPP mechanism within Environmental Fund of FBiH and development of by-law document on ESCO in FBiH) and international consultant for development of financial mechanisms and regulations for PPP. Project is selected the service provider for development of 15 SECAPs. The drafts	Green	υ	As per the mid-term status, 12,9 mil USD of parallel co-finance have been invested by the EFs of FBiH and RS in 2018 and 2019 for various types of LCUD projects; covering both environmental protection and energy efficiency projects. These funds were invested as co-finance of projects approved through public calls of EFs of FBiH and RS.

Indicator	Baseline Level	Midterm Target	End-of-Project Target	Cumulative Progress Reported	MLA	AR	Justification for Rating
				of SECAPs are finalized during by the August 2020 and it initiated their adoption in cites and municipalities.			Data on 2020 are still missing while impacts of COVID-19 pandemic on EFs budget spending for these types of projects pandemic is still unclear. EFs are obliged to participate in the economic recovery from the COVID-19 pandemic which increase the uncertainty regarding the EFs' ability to cofinance activities of the UrbanLED project.
tCO2eq direct emissions reductions (attributable to project-facilitated LCUD investments made during project duration, totalled over respective lifetime of the investments	0	18,592.5 tCO2eq	61,975.00 tCO2eq	Please see cumulative progress for previous indicators 1 and 2. This indicator should be subject to the revision and the project indicator and activities should be redesigned accordingly.	Yellow	U	The targeted mid-term targets of the direct reductions of direct tCO2eq emissions are attributable to the project-facilitated investments in LCUD projects, including project's financing, initiated investments from EFs and municipalities co-financing. Due to fact that these investments are not initiated, the project did not succeed fully in reach the defined mid-term indicator. Besides, MTR team noticed an omission in the indicator which defines tCO2eq direct emissions reductions – instead of 18,592.5 (mid-term) and 61,975.00 (end of project) tCO2eq direct emissions reductions calculated in the GEF tracking tool based on the annual direct emission reductions, the indicator was calculated based on the sum of direct and indirect emission reductions. Midterm target should be revised.
No. project beneficiaries, including % of women	NA	6,000 (including 60% - women)	15,000 (including 60% - women)	Please see cumulative progress for previous indicators 1 and 2	Yellow	MS	The project moderately satisfactory includes project beneficiary into project including percentage of women.

Outcome 1

Innovative Financing Mechanisms for Implementation of Low-Carbon Urban Development Concept (LCUD)

	Baseline	Midterm	End-of-Project				
Indicator	Level	Target	Target	Cumulative Progress Reported	MLA	AR	Justification for Rating
Status and level	ESCO	Regulatory	ESCO Funds	Project provided technical assistance for preparation of	Yellow	MU	The MTR team has not identified any
of capitalization	Funding	framework	established and	draft Rulebook on Energy Service Contracting and			example of functioning ESCOs in BiH.
of the financial	window	for ESCO	capitalized with	Implementation/Energy Performance Contract for FBiH. As a			However, UNDP team conducted baseline
mechanism	does not	Fund	at least 24 mln	result of this activity, local consultant prepared draft			assessment during the development of
(ESCO Funding	exist	established	US\$	EPC/ESC contracts and preprared analysis of potential roles			project document. Withal, UNDP team has
window)		at each		of EF FBiH in ESCO financial mechanism. Along with these			constant communication with Project Board
		entity		activities, collaboration with FBiH Ministry of Energy, Mining			member institutions, both during the
				and Industry and State Ministry of Finance and Treasury on			development of project document as well as
				creating the preconditions for introduction of ESCO have			during the initiation of activities regarding
				been intensified. Furthermore, local consultants for			introduction of ESCO models in FBiH and RS.
				development of feasibility study on ESCO piloting in FBiH			In order to be a more efficient, due to the
				have been engaged. In case of RS, 4 local consultants (2			delays in-initiation of ESCO development
				economists; one with expertise in public finance analysis			activities, it has been decided that a detailed
				and other with expertise in financial risk assessments; legal			gap analysis relevant for introduction of
				expert and engineer) have been engaged for development			ESCOs is to be conducted by local
				of ESCO financial mechanism in RS, and are finalizing the			consultants engaged for the development of
				ESCO financial model for RS. In case of the International			ESCOs in FBiH and RS (i.e. development of
				Consultant for the development of the financial mechanism			report on preconditions for ESCO in RS;
				and development of regulations on polluter pays principles,			development of criteria for selection of
				tasks defined in the contract referred to the development of			private partner; sustainability analysis of
				necessary regulations for instituting polluters pay principle			proposed ESCO model in RS; feasibility study
				(PPP) aiming to improve the system for collecting PPP fees			for selected public buildings RS;
				by entities' Environmental Funds (EFs) and to develop a			development of bylaw document in FBiH
				detailed financial mechanism for the low-carbon urban			that defines ESCO contracting modalities;
				development (LCUD) projects which represent an ESCO			analysis of potential roles of FBiH EF in ESCO
				funding window within entities' EFs.			model and development of draft ESCO
				However, circumstances in the country are unfavourable for			contracts for public lightning and energy
				a proper introduction of PPP and thorough reforms need to			efficiency measures and their testing on
				be implemented in this regard. Therefore, a certain number			selected public buildings, and feasibility
				of tasks of international consultant could not be executed to			study for selected public buildings in FBiH).
				the extent defined by this contract. Furthermore, occasions			
				related to establishment of ESCO financial mechanisms in			

Indicator	Baseline Level	Midterm Target	End-of-Project Target	Cumulative Progress Reported	MLA	AR	Justification for Rating
				FBiH and RS significantly changed, both substantially and in terms of time-frame. Thus, based on the mutual agreement, this contract was terminated with the effective date of 8th of May, 2020. UrbanLED Project team finalized the issuance of the new contract for international consultant which will be focused on ESCO mechanism exclusively. When it comes to the partnerships with municipalities, 15 Sustainable Energy and Climate Action Plans (hereinafter SECAPs) are finalized by the end of August 2020 and five SECAPs were adopted by the municipal assemblies (Doboj, Gradiška, Kotor Varoš, Laktaši, Odžak) so far. The Project organized public call for municipalities in RS for preparation of waste management plans with green logistic schemes for waste management. 4 municipalities (Trebinje, Zvornik, Bijeljina and Doboj) have been selected and in forthcoming period ToRs for 6 experts (senior and junior environmental experts, economist, legal expert, GIS expert and mechanical engineer) will be announced. Selected municipalities submitted their consents for proposed cofinancing.			
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)	Project is currently providing technical assistance aimed at development of ESCO financial mechanisms in FBiH and RS. As final outcome of this process, trainings for staff at EFs and other stakeholders are planned. In May 2020, project organized a regional ESCO webinar for representatives of EFs, responsible ministries, colleagues from UNDP in Serbia and representatives of project teams for GED, Low Carbon and UrbanLED projects, including local consultants. Webinar was attended by around 20 representatives of institutions mentioned above. Colleagues from APN, institution responsible for monitoring of ESCO projects in Croatia, shared their knowledge and lessons-learned from this	Yellow	MU	None of the planned trainings are prepared and conducted. The large influence on this has COVID-19 crises. All planned trainings should switch to online trainings and webinars until the situation is adequate to have in person trainings.

Indicator	Baseline Level	Midterm Target	End-of-Project Target	Cumulative Progress Reported	MLA	AR	Justification for Rating
				process. It has been agreed among three projects (UrbanLED, Low Carbon and GED) together with Project Board members of UrbanLED project to engage consultant that provide support to the APN in development of ESCO framework. His tasks will be mainly aimed at steering the overall process of ESCO development, together with International consultant already engaged, and preparation and organization of ESCO trainings. Project is in process of contract issuance for Service Provider that will develop and organize trainings on project cycle management for representatives of Project Board institutions of UrbanLED project.			
Status of MRV system	No MRV system in place	MRV system proposed and tested	MRV system is both operational in both entities	So far, project provided technical assistance for preparation of draft Rulebook on Energy Service Contracting and Implementation/Energy Performance Contract for FBiH, development of draft contracts on EPC/ESC and analysis of potential roles of EF FBiH in ESCO financial mechanism. Along with these activities, collaboration with FBiH Ministry of Energy, Mining and Industry and State Ministry of Finance and Treasury on creating the preconditions for introduction of ESCO have been intensified. This will result with establishment of ESCO working group consisting of entity and state ministries for finance, FBiH Ministry of Energy, Mining and Industry, EF, Ministry of Foreign Trade and Economic Relations of BiH and UNDP Project. Based on the financial agreement made with EF FBiH, it is planned to initiate the piloting of ESCO contract in FBiH in 2021. As of now, local consultants for preparation of Feasibility study for ESCO piloting are engaged. In case of RS, 4 local consultants (2 economists; one with expertise in public finance analysis and other with expertise in financial risk assessments; legal expert and engineer) have been engaged for development of ESCO financial mechanism	Yellow	MU	Most of the activities regarding the MRV have been initiated and it will result with MRV developed; with delays occurred.

Indicator	Baseline Level	Midterm Target	End-of-Project Target	Cumulative Progress Reported	MLA	AR	Justification for Rating
				in RS. ESCO model will be developed by beginning of 2021 while first ESCO projects should be initiated in 2021. In case of the International Consultant for the development of the financial mechanism and development of regulations on polluter pays principles, tasks defined in the contract referred to the development of necessary regulations for instituting polluters pay principle (PPP) aiming to improve the system for collecting PPP fees by entities' Environmental Funds (EFs) and to develop a detailed financial mechanism for the low-carbon urban development (LCUD) projects which represent an ESCO funding window within entities' EFs. However, circumstances in the country are unfavorable for a proper introduction of PPP and thorough reforms need to be implemented in this regard. Therefore, a certain number of tasks of international consultant could not be executed to the extent defined by this contract. Furthermore, occasions related to establishment of ESCO financial mechanisms in FBiH and RS significantly changed, both substantially and in terms of time-frame. Therefore based on the mutual agreement, this contract was terminated with the effective date of 8th of May, 2020 and new contract signed; focused on ESCO mechanism exclusively. International consultant is currently working on the development of Guidebook for ESCO module in EMIS and it will be finalized by end of 2021.			
Outcome 2 - Low-carbon public	buildings an	nd utilities					
Number of public facilities and utilities covered by EMIS on municipal level	2300	500	3800	In previous period, Project closely cooperated with Environmental Funds of RS and FBiH in order to motivate municipalities in BiH (173, in total) to send list of facilities and utilities owned by municipalities that could be entered	Green	S	This outcome is built on the previous successful implemented intervention of development of EMIS and it is expected increase of number of facilities and utilities covered by EMIS.

Indicator	Baseline Level	Midterm Target	End-of-Project Target	Cumulative Progress Reported	MLA	AR	Justification for Rating
		· ungur	·	into EMIS. So far, data on 490 public facilities have been covered by EMIS on municipal level.			MTR team noticed an omission in the logframe regarding the midterm target – 500 buildings should be covered by midterm while the entire progress is targeted at 1500 buildings.
Number of people trained in energy management and LCUD project design and implementation (and % women)	0	500 (20%)	1,500 (30%)	So far, 205 representatives (Males: 112; Females: 93) of public facilities and utilities at municipal level have been trained. The discrepancy in number of facilities and people trained is due to the fact that one person usually provides information for EMIS for more than one facility.	Yellow	MS	Some of the trainings on energy management and LCUD project design are prepared and conducted and achievement in number of people trained is on moderately satisfactory level. The large influence on this has COVID-19 crises. All planned trainings should switch to online trainings and webinars until the situation is adequate to have in person trainings.
Number of infrastructural LCUD projects implemented	0	15	45	Project has initiated the development of ESCO financial mechanisms in FBiH and RS through selection of local consultants and international consultant for development of ESCO financial mechanisms in BiH. Currently, project engaged local consultants for development of feasibility study for ESCO pilots in FBiH. In case of RS, 4 local consultants (2 economists; one with expertise in public finance analysis and other with expertise in financial risk assessments; legal expert and engineer) have been engaged for development of ESCO financial mechanism in RS and ESCO mechanism is to be finalized by beginning of 2021.	Yellow		There are no registered LCUD projects implemented during the previous reporting period, including pilot project. Midterm target should be revised.
Outcome 3 Status of MRV for	waste sector						
Status of MRV for waste sector	No MRV for waste sector	Identified MRV modalities evaluated and MRV	MRV system established (data collection, assessment, archive and evaluation),	Until June 30 2018, the Working Group for review of ToR for development of MRV for waste sector developed. It consists of representatives of following institutions: Ministry of Foreign Trade and Economic Relations of BiH, RS Ministry of Spatial Planning, Civil Engineering and Ecology, Federal	Yellow	MS	Significant progress towards achieving planned outcomes have been achieved. In case of RS decision on development of IT waste management system awaited adoption of the amendment to the Law on

Indicator	Baseline Level	Midterm Target	End-of-Project Target	Cumulative Progress Reported	MLA	AR	Justification for Rating
		system	institutionalized	Ministry of Environment and Tourism, Environmental Fund			waste management of RS that happened
		proposed	and legally	of FBiH and Environmental and Energy Efficiency Fund of RS.			quite recently. This means that development
			recognized	On these meetings ToR for development of MRV system was			of IT waste management system in RS will be
			responsibility	developed and jointly agreed. Furthermore, it has been			initiated by the beginning of 2021 along with
			for MRV in	decided and approved by Project Board that two separate IT			revision of waste disposal fees in RS. This
			place	systems for two entities (FBiH and RS) should be developed.			progress increase alignment of project
				This decision significantly delayed the process of engaging			progress towards achievement of targets
				the IT company.			defined for waste management and logistics.
				IT company for development of MRV for waste sector in			
				FBiH has been contracted in August 2019 (which is 1 year			
				and 8 months after the project initiation). Project provided			
				technical support to the FBiH EF on establishment of IT			
				waste management system. The most important modules of			
				IT system (Administration module; Module for monitoring			
				and calculation of fees for special categories of waste;			
				Waste streams management module) have been developed			
				and are in testing phase by employees of FBiH EF. Withal,			
				project engaged local consultant for revision of fees for			
				disposal of municipal waste (including industrial non-			
				hazardous waste) with propositions to introduce weight or			
				volume-based tariffs for disposal of these types of waste. In			
				case of RS, project is still waiting for adoption of the			
				amendment to the RS Law on waste management which			
				represent prerequisite for final definition of the scope of IT			
				waste management system in RS. As communicated at the			
				last Project Board meeting (held on June 18th, 2020), the			
				preparation of the IT waste management system in RS will			
				be initiated in 2020. Adoption of the amendment Law is			
				prerequisite for engagement of local consultant for revision			
				of fees for disposal of municipal waste (including industrial			
				non-hazardous waste) as well. Recently, it has been decided			
				to go with both activities by the beginning of 2021.			

Indicator	Baseline Level	Midterm Target	End-of-Project Target	Cumulative Progress Reported	MLA	AR	Justification for Rating
Reduction in fuel consumption from the municipal waste transportation (% to baseline) in pilot municipalities	N/a	15% reduction in at least 2 municipalit ies	15% reduction in all 6 pilot municipalities	No progress has been made so far. Project organized public call for municipalities in RS for preparation of waste management plans with green logistic schemes for waste management. Four municipalities (Trebinje, Zvornik, Bijeljina and Doboj) have been selected and in forthcoming period ToRs for 6 experts (senior and junior environmental experts, economist, legal expert, GIS expert and mechanical engineer) will be announced. Selected municipalities submitted their consents for proposed co-financing.	Yellow	М	No progress on development of new waste transportation systems in pilot municipalities and related reduction of fuel consumption from municipal waste transportation is not achieved. However, upcoming engagement of experts for development of municipal waste management plans and proposal of effective waste transportation system will contribute to take this intervention on track. Still, in case of FBiH, no activities on green logistic schemes have been initiated. Project Board needs to steer further activities under this Component; having in mind the lack of decision regarding development of green logistic schemes in FBiH.
Outcome 4 National and secto	ral policies.	institutional c	oordination and av	vareness raising on low carbon urban development			· · ·
Status of relevant LCUD enabling rules and regulations	N/a	Harmonize d LCUD- enabling rules and regulations proposed	Harmonized LCUD-enabling rules and regulations developed and enacted across BiH	At First Project Board meeting (February 14th, 2018), Project Board members were asked to send the list of identified needs in terms of development of regulations (laws and by-laws) in relation to introduction of LCUD concept in BiH. In consultation with Project Board members, ToRs were prepared, local consultants engaged and following documents developed so far: Draft Law on air protection in FBiH developed and submitted for further adoption; Draft bylaw document on GHG inventory in FBiH; Detail analysis of current Law on waste management of RS prepared; amendment of current Law on waste management prepared and submitted to the RS Government for the adoption; Decision on establishment of	Yellow	MS	The process of identification and drafting of relevant legislation is going properly and appropriate cooperation with policy makers (e.g. ministries) is established. ToRs for technical assistance in preparation of draft documents was developed in cooperation with representatives of Ministries and Funds. Several drafts of laws and bylaws are prepared (e.g. Draft Law on air protection in FBiH; ESCO contracting in FBiH; Waste fees and Polluters Pay Principle in FBIH; Detail analysis of current Law on waste management of RS prepared; Draft Decision on establishment of energy management

Indicator	Baseline Level	Midterm Target	End-of-Project Target	Cumulative Progress Reported	MLA	AR	Justification for Rating
Number of people reached out to by national LCUD awareness raising campaign (refer to Annex B of the Project Document for		200,000 (at least 50% women)	750,000 (at least 50% women)	energy management system at state-level developed and adopted; Analysis of all parafiscal charges collected on the basis of environmental pollution in FBiH (Federation, Canton and Local self-government level) finalized; Draft Rulebook on energy audits for utility services in FBiH finalized; Strategic document in field of energy efficiency at level of BiH is under development; Draft versions of Decree on Environmental Impact Assessment and Decree on Environmental Permitting, as bylaw documents of the for draft Law on Environmental Protection in the FBiH, developed In previous period, Service Provider is selected, focus groups and opinion survey on low-carbon urban development concept were organized. Results of survey and focus groups were utilized for development of Communication Strategy developed in September 2018. After that, 3 brochures (on LCUD concept, Energy Efficiency measures in context of LCUD and Waste management in context of LCUD), leaflet on project's activities and general principles of LCUD		S	System at state-level; Policy on energy efficiency in BIH). There are regular activities on awareness raising through social networks and media. The COVID-19 crises and related measures of social distance reduced planned direct contacts with citizens.
details on how this will be measured)				concept have been developed. In previous period, Service Provider prepared 5 posts per month based on promotional materials developed. Along with these activities, several TV guests have been organized as well. Based on the AGB Nielsen; Ipsos; media guests in different TV channels resulted in reach of around 1 mil. BiH citizens. Along with these activities, Service Provider provided support to marking the June 5th, World Environment Day, by painting the mural at one kindergarten in Banja Luka. This activity was very welcomed and supported on social media channels.			

This section sets out the principal review findings by project component:

Component 1: Innovative financing mechanisms for low-carbon urban development (LCUD)

The related expected outcomes for this component are: Outcome 1.1: Strengthened public capacities to programme and monitor environmental finance for LCUD and Outcome 1.2: Increased and diversified sources and modalities of public investment in LCUD. The related expected outputs for this component are: Output 1.1: Regulations for polluter pays principle developed; Output 1.2: Financial mechanism (ESCO Funding window) established at EFs and capitalized with EF's own finance; Output 1.3: At least 40 staff of relevant institutions gaining first-hand experience (through trainings) on innovative finance options for LCUD and at least 100 representatives of relevant SMEs informed about the ESCO-support mechanism; Output 1.4: Contractual and implementation arrangements for repayment mechanism established and Output 1.5: Measurement, Reporting and Verification (MRV) for implementation of ESCO-support mechanism established.

The cooperation with two Environmental Funds is well established, but it is unclear whether their involvement will lead to participation in financial model other than grants disbursement. The National Investment Framework, developed by the LowCarbon project, should give some directions towards development and inclusion of financial models that will help increased of public-private partnership, development of public ESCO and other possible solutions. Commercial debt financing is practically not utilized in BiH for EE/RE projects in public facilities, with an exception of fuel-switch projects (oil to biomass).

The process of engaging the international consultant seems anchored on a surface understanding of the country's legal/policy infrastructure for the introduction of the Polluter Pay Principle (PPP). After realizing that certain policy conditions in the country are not conducive to introduction of a PPP, the contract of the international consultant had to be terminated and another consultant had to be engaged to focus on the development of an ESCO model in RS and FBiH. The 6-month engagement process understandably led to the corresponding delay in coming up with financing mechanisms for low-carbon urban development (LCUD) projects in FBiH and RS. In order to be a more efficient, due to the delays in initiation of ESCO development activities, it has been decided that a detailed gap analysis relevant for introduction of ESCOs is to be conducted by local consultants engaged for the development of ESCOs in FBiH and RS (i.e. development of report on preconditions for ESCO in RS; development of criteria for selection of private partner; sustainability analysis of proposed ESCO model in RS; feasibility study for selected public buildings RS; development of bylaw document in FBiH that defines ESCO contracting modalities; analysis of potential roles of FBiH EF in ESCO model and development of draft ESCO contracts for public lightning and energy efficiency measures and their testing on selected public buildings, and feasibility study for selected public buildings in FBiH). Besides, provision of technical support aimed at PPP have been devoted only to the preparation of analysis and recommendations in FBiH. This will be utilized as tool for advocating the needed reforms. In case of RS, Project Board members institutions did not give their consent for initiating this analysis and final decision will be made in forthcoming period.

The development of a financial mechanism is a key issue for implementation of investments, introducing cofinancing and further development of partnerships. The lack of clear supporting legislation is a barrier to implementation. Furthermore, the process of engaging the international consultant seems anchored on a surface understanding of the country's legal/policy infrastructure for the introduction of Polluter Pay Principle (PPP). After realizing that certain policy conditions in the country are not conducive to introduction of (PPP), the contract of the international consultant had to be terminated and that another consultant had to be engaged to focus on the development of ESCO model in RS and FBiH. The 6-month engagement process understandably led to the corresponding delay in coming up with financing mechanisms for low-carbon

urban development (LCUD) projects in FBiH and RS. This could have been avoided if a thorough gap analysis would have been carried out at the onset of the project. The part of the activities related to development of financial mechanism is a development of contracts, and internal and external regulatory documents related to repayment of EFs for works and services. This part is not taken in consideration as required output at the previous implementing period.

Notwithstanding the delays, the partnerships established with the Environmental Funds and municipalities led to the drafting Rulebook on Energy Service Contracting and Implementation/Energy Service Contract for FBiH and the subsequent engagement of local consultant to develop Energy Performance/Energy Service contracts (EPC/ESC) and analyse the functions of EF FBiH in ESCO financial mechanism. An agreement has also been entered with EF FBiH to pilot an ESCO contract this year. Feasibility study is also being carried out which will include the tender documentation to select an ESCO. The Project also engaged experts to do the feasibility study for 27 public buildings subject to the procurement process of the Ministry in the selection of private partner ESCO in the Canton of Middle Bosnia.

In Republika Srpska, 4 local consultants have been engaged with relevant expertise to develop ESCO financial model by Mid-November (the planned deadline was the end of September 2020). With the status-quo, the process becomes more tedious and to some extent, consent by municipalities on subsequent steps may be deemed precarious, compared to having a clear holistic picture of the partnership at the beginning of the engagement. Salient elements of the partnership should include the adoption of Sustainable Energy and Climate Action Plans and its role in the selection and implementation of ESCO pilot infrastructure projects, the holding of public call for municipalities in RS for the formulation of waste management plan with green elements and the selection of municipalities thereof, implementation of infrastructure projects in waste management, a mutually agreed co-financing scheme, among other important points in the partnership.

In case of RS, four consultants (2 economists; legal expert and engineer) have been engaged for development of the ESCO financial mechanism in RS by the beginning of 2020. Most of the documentation and analysis needed for the development of ESCO model in RS (i.e. analysis of preconditions for ESCO regarding legislative and institutional preconditions as well as market and financial risks analysis; criteria for selection of private partner, conceptual model of ESCO mechanism, bookkeeping model) have been finalized in 2020 while initiation of its testing is planned for the first half of 2021.

Although the project presents some eligibility factors (e.g. project readiness; amount of expected annual GHG emission reduction; expected energy and costs savings; social/human development effects; investment based on SECAPs and/other relevant municipal planning documents, the project activity 1.2 foresees development of eligibility criteria for grants, monitoring and verification procedures for proving savings achieved, and procurement methods with criteria for awarding grants and revolving loans. Therefore, following steps for the selection of infrastructure projects which are to be realized in line with ESCO models developed in FBiH and RS were developed by UrbanLED project team and communicated with LowCarbon and GED project teams:

- 37 municipalities for which SECAPs have been prepared by the technical support of GCF-funded "Scaling-up Investment in Low-Carbon Public Buildings" (LowCarbon) project and UrbanLED will be the pool for selection of pilot municipalities
- Priority projects from SECAPs will be used as starting point for selection of projects to be implemented in accordance with the ESCO models
- Public facilities for which detailed energy audits have been prepared by the Green Economic Development (GED) and LowCarbon projects in SECAP municipalities will be used as a pool for piloting the ESCO models in FBiH and RS

 Tracking the progress of the investments will rely on the data of the selected public facilities which are already inserted into the Energy Management Information System (EMIS); particularly the ones which are needed for emission reduction calculations

These steps were approved by the Project Board.

The Project was instrumental in drafting the Rulebook on energy service contracting and implementation/Energy performance contract of FbiH which resulted to the engagement of a local consultant to develop EPC/ESC and analyse prospective functions of EF FbiH in the development of ESCO financial mechanism. Pursuant to an agreement between EF FbiH, a pilot ESCO contract in FBiH will be in place this year.

The engagement of an international consultant to develop regulations for polluter principles emanated from the realization that reforms are needed in order for PPPs to work in the country. This aims to improve the system for collecting PPP fees by entities' Environmental Funds (AFs) and to develop a financial mechanism for low-carbon urban development (LCUD) projects capitalizing on the ESCO funding window within entities' EFs.

The preparation of training modules on project cycle management for representatives of Project Board Institutions is slightly delayed and is initiated in December 2020. Additionally, there are unclear on-the-job training and advisory provided for the staff of EFs and relevant ministries.

Component 2 Low-carbon public facilities and utilities

The related expected outcomes for this component are: Outcome 2.1: Strengthened capacities of municipal managers, companies and utilities to monitor resources use, prepare and implement feasible infrastructural LCUD projects and Outcome 2.2: Reduced GHG emissions from pilot investment. The related expected outputs for this component are: Output 2.1: EMIS expanded to cover all types of public facilities and resources use in public utilities (1,500 buildings); Output 2.2: Municipal staff trained and equipped to apply EMIS (1,500 end-users trained); Output 2.3: 45 LCUD investment projects in public facilities and utilities implemented; and Output 2.4: At least 15 SECAPs and/other relevant municipal planning documents prepared to scale-up piloted investment.

Level of preparation of SECAPs and it is influence to the selection of pilot and other LCUD project: Finalization of Sustainable Energy and Climate Action Plans (SECAPs) may be delayed due to COVID Pandemic. It should be noted that SECAPs will be utilized as basis for choosing and implementing ESCO infrastructure projects. It is noteworthy that two SECAPS have been adopted by two municipalities. The development of 15 SECAPs is a base for the subsequent selection of 4 pilot infrastructure projects. Finalization of SECAPs is due to end of August 2020 and their adoption by municipal assemblies is foreseen by the end of 2020. Adoption of the SECAPs may be delayed due to COVID-19 pandemic and local elections, which occur in November 2020.

The project insufficiently implemented activities related to involvement of private companies to participate in ESCO arrangements and their feedback on financial mechanisms and contracting models. The market analyse of the ESCO business is not adequately conducted as the one of preconditions for further development of ESCO regulations, financial mechanism as well as the modalities for involvement of the private sector into a development of ESCO models in FBiH and RS.

There is a formal willingness of local self-governments to co-finance infrastructure projects according to ESCO model and adding that to the process of selecting infrastructure pilot projects. The Project is targeting at least 30% share of Municipalities and "selected municipalities submitted their consent". There is no clear

indication that all or targeted municipalities will be amenable to such co-financing scheme. No basis was articulated that established the 30% share.

Project is on track in organization of EMIS trainings and progress in reaching the target of number of public buildings and other public facilities/utilities covered by EMIS. Cumulatively 490 public utilities have been covered by EMIS across different municipalities while at the level as of June 30, 2019, 236 public facilities had been covered. MTR team noticed an omission in the logframe regarding the midterm target – 500 buildings should be covered by midterm while the entire progress is targeted at 1500 buildings.

Component 3: Low-carbon transport and logistics for waste management

The related expected outcomes for this component are: Outcome 3.1: Reduced GHG emissions from improved waste management system as a result of waste minimization and Outcome 3.2: Reduced GHG emissions from improved waste management system as a result of waste collection route optimization. The related expected outputs for this component are: Output 3.1: MRV system for waste sector developed, institutionalized and legally recognized; Output 3.2: Municipal managers (45) and Environmental Fund and environmental Ministry's staff (10) trained and equipped with skills and tools to improve and monitor the waste management system; Output 3.3: Reformed waste fee system introduced; Output 3.4 Green logistic scheme for municipal waste recycling designed and piloted in 4 municipalities.

There are some delays in development of the waste management information system (WMIS). Technical support has been provided to the FBiH EF on establishment of IT waste management system. Different modules have been developed and tested (administration, monitoring and calculation of fees for special categories of waste, waste stream management module. The midterm Target requires identification, evaluation of MRV modalities and that MRV system is proposed. In RS, The Project is anticipating the amendment of pertinent laws on waste management as a precursor for the development of its waste management information system and will be initiated on the second half of 2020.

Regarding the status of revision of fees for disposal of municipal waste (including industrial non-hazardous waste) and propositions to introduce weight or volume-based tariffs for disposal of these types of waste, the Project engaged utilized the services of a consultant for the disposal of waste (including industrial nonhazardous waste) and possible introduction of weight or volume-based tariffs for disposal of those wastes. Such analysis will improve efficiency on waste management in FBiH as it will lead to proposed legal standards for those practices. Both FBiH and RS require these legal reforms prior to the development of their respective WMIS. The Project organized public call for municipalities in RS for the formulation of waste management plans with green logic scheme for waste management and 4 municipalities have been selected: Trebinje, Doboj, Zvornik and Bijeljina. Furthermore, regarding the development of waste management plans with green logistic schemes for waste recycling for four selected municipalities, green logistic schemes for waste management will enable the selected municipalities to come up with well-documented proposals to mitigate GHG emission and will potentially lead to identification and implementation of relevant infrastructure projects in waste management. Moreover, the consultant, for revision of fees for disposal of municipal waste (including industrial non-hazardous waste) with propositions to introduce weight or volume-based tariffs for disposal of these types of waste in FBiH, has prepared the analysis required. As communicated at the last Project Board meeting (held on June 18th, 2020), the preparation of the IT waste management system in RS will be initiated in 2020. Adoption of the amendment Law is prerequisite for engagement of local consultant for revision of fees for disposal of municipal waste (including industrial non-hazardous waste) as well. Recently, it has been decided to go with both activities by the beginning of 2021.

Component 4: National and sectoral policies, institutional coordination and awareness raising on low-carbon urban development

The related expected outcomes for this component are: Outcome 4.1: LCUD-related policies adopted and institutional coordination strengthened and Outcome 4.2: Increased awareness of urban dwellers regarding LCUDs. The related expected outputs for this component are: Output 4.1: Harmonized environmental related rules and regulations developed and enacted across BiH and Output 4.2: National awareness—raising campaign conducted reaching out to at least 750,000 urban citizens.

The project provided external technical assistance for development of several sectoral policies and legislation mainly at entity level. This legislation was mostly identified at the First Project Board Meeting (Feb, 14, 2018) as the need in terms of laws related to introduction of LCUD in BiH and entity ministries and EFs were included in the preparation of ToR for consultants to be engaged. These are the related legislation:

- Draft FBiH Law on air protection;
- Draft FBiH Rulebook on GHG Inventory;
- Preparation of an FBiH Rulebook for conducting energy audits related to utility services;
- Preparation of the amendment to the RS Law on waste management;
- Progress in preparation of Decree on Environmental Impact Assessment and Decree on Environmental Permitting, with a draft version having been developed already;
- Progress in preparation of strategic document on energy efficiency at BiH level;
- Preparation of the RS Law on Climate Change;

It should be noted that Midterm target is to have a full proposal of harmonized LCUD-enabling rules and regulations. Great challenge laying in the process of adopting new waste related legislation. Depending on how Parliaments work in entities, normally, it takes time before laws are passed. Lobbying is difficult and it entails identifying a lawmaker who not only has the strong advocacy on environmental protection and management but also someone who can rally and persuade his/her peers to such advocacy. The process of support to preparation of relevant legislation is well organized. The Ministries expressed a good cooperation and methodological approach for drafting of laws and by-laws. The UNDP is drafting Terms of Reference for the engagement of experts and sends to Ministries for overview and comments and the agreed ToR was released for selection of consultants.

Project Implementation and Adaptive Management – Review Findings

Considering the difficulties and delays experienced in the Project, it is noted that Steering Project Committee /Board Meetings were held seven times. It is not clear whether there is a monthly or quarterly reporting mechanism in place from the Project team to the Steering Project Committee. Some examples of adaptive management have been in evidence, such as the pivoting away from PPPs and focusing on ESCOs. Overall, however, the project has shown limited adaptive management, and in particular in addressing the bigger issues facing the project.

Work planning

The work planning processes of the project are relatively weak due to fact that project change the project manager tice and there is no project manager at the moment of Mid-Term Review. Quarterly work planning, strategic discussions and PSC meetings are unclear and they need to be organized online due to COVID-19 restrictions in in person meetings.

Finance and co-financing

"Risk description: Municipalities' and EFs' resources currently available to support LCUD investments are based on annual budget decisions, which can be subject to major changes as a result of eventual political changes and/or increased budget constraints.

Impacts of the risk: unavailability of municipalities' and EFs' resources currently available to support LCUD investments.

Management response: The financial risks are reduced by the formal co-financing letters obtained from the entities' EFs to support the LCUD infrastructure projects with at least USD 40 million over the duration of the project. Support provided to entities' EFs to diversify and strengthen their funding base have been also sought as attempt to minimize this risk. However, current situation regarding COVID-19 pandemic increases the uncertainty regarding the readiness and financial viability of both municipalities and entities' EFs to invest into the LCUD projects. For instance, Government of FBiH has established so called COVID-19 fund by which almost 50% of annual funds of the FBiH EF have been reallocated to this fund. In order to minimize the impacts of such a risk, Project implements the gradual approach in this regard. Co-financing from municipalities selected for development of Waste management plans with green logistic schemes in RS will firstly refer to the preparation of the document (municipalities will participate with 30%). Next step will be devoted for realization of infrastructure projects recommended through these documents. By doing so, Project give time to municipalities to plan accordingly as per priorities and current circumstances. Also, RS EF will financially participate in these activities so that the financial burden will be split among RS EF and municipalities selected."

Management Arrangements

So far, adaptive management is not fully in place and proper and timely actions are not taken to mitigate problems and challenges related to project management and administration. More positively, based on adaptive management principles the Sector Leader took over role of Acting Project Manager and two additional team members have been engaged in the last 5 months (project offices with technical background focused on ESCO and project clerk). Currently, project management structure has 2 project officers and project clerk which are supervised by the CCM Programme manager. Such decision was made in order to enhance synergies among UrbanLED, LowCarbon and GED projects.

In addition, there is a pressing need for the CTA to complete his assignment in accordance with their ToRs and contracts, and for progress to be accelerated through working remotely until COVID-19 restrictions are lifted.

Combined Delivery Reports (CDR) Analysis

For all the five activities, under the main disbursements in 2019 consultant fees represented the largest share, accounting for 47.55% or (USD 75,132.32) of the annual funds engaged, with this including both international and local consultants. This was followed by Co-trade and Business Services, which accounted for 41.73% of the annual expenditure amount, or USD 158,008.59. This was followed by i) Per Diem costs (both international and local), which represented 4.98% of the annual funds engaged, and ii) Travel costs (included international and local travel), which accounted for just under 5% (4.59%).

During 2020, with the project expenditure increasing by almost 50% compared with 2019, total consultant fees represented 57.69% of the total annual spent amount of the project (USD 226,884.04) while the Cotrade and Business Services represented 23.56%, followed by UN Volunteers costs at 6.76% and Per Diems and Travel accounting for 2.53% and 1.71% respectively. Overall, project expenditure has totalled USD 384,892.63, with consultant fees representing 53.52% and Co-trade and Business Services representing 31% of the total disbursed budget.

Stakeholder engagement

Stakeholders are properly engaged through their participation in the Project Steering Board, consultations and active involvement in implementation of project activities (e.g. Municipalities/Cities signed letter of intent for co-financing, Municipalities/Cities participated in preparation of SECAPs, Ministries and Funds took active role in preparation of ToRs for involvement of experts for preparation relevant legislation). In accordance with information gathered from interviews with stakeholders, the situation in the Bosnia and Herzegovina is complex with big number of stakeholders involved and covering two large fields of engagement: energy and waste. Municipalities, as important stakeholders are committed to participate in the project activities in particular with signature of a commitment letter for co-financing of urban low-carbon projects and participation in pre2paration of SECAPs (15 cities/municipalities prepared a draft of SECAP). There is no information on market surveys and involvement of SMEs from the field of energy into project activities, yet this is important in order to inform them on ESCO-support mechanism.

Reporting

Adaptive management changes have been reported by the UNDP Staff and shared with the Project Board. The UNDP and partners are undertaking and fulfilling GEF reporting requirements, and have undertaken necessary meetings and online communication, as needed. However, an adaptive management should be more intensively implemented, in particular issue of project's staff engagement. In order to improve project management and reporting a new (adapted) logical framework needs to be prepared and it will help in preparation of new and detailed workplan.

Communication

Project communication with key stakeholders is regular and acceptably effective. The general project's visibility is however only moderately satisfactory, linked in part to the limited 'external' results generated todate by the project. During the stakeholder consultation phase stakeholders (e.g. municipalities, ministries) underlined the need for improvement of information and communication flows on the UrbanLED project component and activities in which they are not directly involved. Internal communication is appropriate, especially in light of the range of involved parties and complexity of interventions.

Project Sustainability - Review Findings

The risks to sustainability are monitored quarterly by the UNDP Country Office in Bosnia and Herzegovina in line with standard UNDP requirements. The UNDP Country Office updates project-level risks in the Atlas Risk Register line with UNDP's enterprise risk management policy and have a detailed discussion with the Regional Technical Advisor (RTA) on risk management prior to update of the PIR. Furthermore, the Country Office selects the 'high' risks identified in the Atlas Risk Register as well as any other 'substantial' risks from the Atlas Risk Register identified by the RTA as needing to be addressed in the PIR. Moderate and Low risks do not need to be entered in the PIR Risk Management section. After selecting the risk, a text field will appear where the Country Office should describe the risk and explain actions undertaken this reporting period to address the risk selected.

Financial risks to sustainability

Risk description: Municipalities' and EFs' resources currently available to support LCUD investments are based on annual budget decisions, which can be subject to major changes as a result of eventual political changes and/or increased budget constraints and committed funds may be rearranged to finance COVID-19 recovery.

Impacts of the risk: Unavailability of municipalities' and EFs' resources currently available to support LCUD investments.

Mitigation response: The financial risks are reduced by the formal co-financing letters obtained from the entities' EFs to support the LCUD infrastructure projects with at least USD 40 million over the duration of the project. As per the mid-term status, 12,9 mil USD of parallel co-finance have been invested by the EFs of FBiH and RS in 2018 and 2019 for various types of LCUD projects; covering both environmental protection and energy efficiency projects. These funds were invested as co-finance of projects approved through public calls of EFs of FBiH and RS. Data on 2020 are still missing while impacts of COVID-19 pandemic on EFs budget spending for these types of projects pandemic is still unclear. Support provided to entities' EFs to diversify and strengthen their funding base have been also sought as attempt to minimize this risk. However, current situation regarding COVID-19 pandemic increases the uncertainty regarding the readiness and financial viability of both municipalities and entities' EFs to invest into the LCUD projects. For instance, Government of FBiH has established so called COVID-19 fund by which almost 50% of annual funds of the FBiH EF have been reallocated to this fund. In order to minimize the impacts of such a risk, Project implements the gradual approach in this regard. Co-financing from municipalities selected for development of Waste management plans with green logistic schemes in RS will firstly refer to the preparation of the document (municipalities will participate with 30%). Next step will be devoted for realization of infrastructure projects recommended through these documents. By doing so, Project give time to municipalities to plan accordingly as per priorities and current circumstances. Also, RS EF will financially participate in these activities so that the financial burden will be split among RS EF and municipalities selected.

Institutional framework and governance risks to sustainability

Risk description: 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.

Impacts of the risk: The regulatory framework is not compatible between entities and state level to implement identified financial mechanism.

Mitigation approach: The project works with and support from both entities, FBiH and RS, and Environmental Funds to design the financial support mechanism for LCUD, which is appropriate for each entity. Moreover, the project works with MOFTER and facilitate inter-entity dialogue and exchange of experiences and approaches to ensure harmonized approaches among entities.

Risk description: Complex administrative and governance structure in BiH coupled with low capacities of public authorities poses risks related to enforcement of required policy and regulatory changes related to enabling environment for private investment in LCUD.

Impacts of the risk: inability of relevant bodies to undertake and enforce required policy and regulatory changes.

Mitigation approach: The project has invested significant effort and time to involve stakeholders relevant for introduction of the LCUD concept in BiH, due in part to the decentralized administrative structure of the country. The project has made a point of cooperating with relevant authorities and the Ministry of Foreign Trade and Economic Relations of BiH to facilitate inter-entity dialogue and harmonize/ align pro-LCUD policies and regulations between the entities. As for the ESCO financial mechanism, the project has supported a collaborative approach, and in the case of ESCO in FBiH the project has initiated the involvement of Ministry of Finance and Treasury of BiH in the development of the required legislative framework for ESCOs in FBiH. Collaboration with the FBiH Ministry of Energy, Mining and Industry has also been intensified in this field, and as a result of this initiative an ESCO Working Group will be established. Regarding the development of

the ESCO financial mechanism in RS, an ESCO Working Group has also been established, comprising amongst others representatives of RS Ministry of Spatial Planning, Civil Engineering and Ecology, RS Environmental Fund, Ministry of Finance, RS chamber of commerce, RS Ministry of Energy and Mining, and RS Guarantee Fund. This approach should help secure involvement of an appropriately wide range of relevant institutions to secure the sustainability of ESCO financial mechanisms in the Country. This needs to be done in this or other format in order to accelerate the whole process of ESCO sector development.

Risk description: The state of emergency, caused by the COVID-19 pandemic, disrupted government counterparts to be fully involved in planning and realization of project activities.

Impacts of the risk: It is assumed that COVID-19 will postpone implementation of activities with concrete impact on intended environmental and development benefits (i.e. implementation of ESCO pilot infrastructure projects which is planned to be initiated in 2020).

Management response: Project has been constantly communicating with governmental counterparts and following the situation in the country in terms of possibility to implement planned activities.

The wider status of ESCO market development and sustainability risks

Overall, the project has made very limited impact in terms of advancing the ESCO market 'on the ground'. None of the companies reviewed by the MTR team is functioning as a real ESCO, something that was also confirmed in interviews with the project CTA.

Thus, even if real progress can be secured in the project's completing the ESCO regulatory and legal framework, there are no currently functioning examples of ESCOs that can be leveraged as demonstration projects by the project. Of significant concern are also institutional constraints and lack of clear political will – not only has the FBiH Environmental Fund not provided an unambiguous commitment to (co-)fund a pilot project, but it has not engaged with innovative models such as ESCOs, preferring to focus on low-risk grant funding.

Not only is this of concern for the country in terms of the prospects of significantly reduced market development impact by the EFs in terms of the low leverage of a grant-only focus, it raises serious question marks about the real commitment of the EFs and BiH Government to support this project and the development of an ESCO market in the country. The current situation not only does this raise significant risks about the sustainability of project risks, but requires a clear and though-through response on the part of UNDP.

Regarding strengthening linkages to the work of the GCF project, and to support the sustainability of the same, linkages could be explored at a number of levels. As UNDP stakeholders have already mentioned, for example, the GCF project has been preparing feasibility studies on 27 public buildings in the Central Bosnia Canton, which could provide a pipeline for follow-up retrofitting under an ESCO demonstration project, as well as showcasing synergies between both projects.

5 REVIEW CONCLUSIONS AND RECOMMENDATIONS



Section Guide

This section provides an overview of the following:

- Review Conclusions (5.1)
- Review Ratings (5.2)
- Review Recommendations (5.3)

Review Conclusions

The mid-term review conclusions are set out below, with each conclusion (C) numbered.

C1 - Project design and scope of coverage: Regarding design, the project combines activities from two large sectors, namely energy and waste. The original proposal, according to the information from UNDP, covered several additional activities and a larger budget for implementation, with the budget and related activities reduced following negotiation with GEF. However, the project activities in the field of energy efficiency (e.g. development of innovative financial mechanism, preparation of SECAPs) and waste (e.g. development of IT waste management systems in FBiH and RS) are for the most part distinct and there are limited internal linkages and synergies between them; apart from the fact that both segments of the project should contribute to the CO2 emission reductions.

Project progress towards outcomes: The implementation of two key activities of the Project have been delayed since the decision on approaches to introduce ESCO financial mechanisms (two approaches for two entities; FBiH and RS) as well as negotiation to have two separate IT systems for waste management for two entities (although originally it was planned to have one IT system for waste management), took a lot of time and effort to reach consensus (app. 2 years of project implementation). It is of note to emphasize that these activities have been intensified by the beginning of 2020 and, despite of the delays, project is on the track to achieve the targets defined. For now, a key positive outcome of the project is the finalisation of 15 Sustainable Energy and Climate Action Plans in cities and municipalities. The process of adoption of SECAPs by local assemblies has however been slowed down due to reduced activities of municipal authorities, COVID 19 pandemic and upcoming local elections. So far, five SECAPs were adopted by the municipal assemblies (Doboj, Gradiška, Kotor Varoš, Laktaši, Odžak). Along with EMIS and detailed energy audits conducted by the LowCarbon and GED projects, SECAPs will be utilized as starting point for selection of infrastructure projects for ESCO piloting in FBiH and RS which is to be initiated in 2021.

Regarding some of the educational activities (e.g. trainings), these have been delayed as a result of the COVID-19 pandemic. When it comes to the waste management component, the most important modules of the IT system for waste management in FBiH have been developed and tested by the employees of EF FBiH. Selection of service provider for the development of the IT system for waste management in RS shall be finalized by the beginning of 2021 as well as the development of waste management plans with green logistic schemes for 4 selected municipalities in RS. As for FBiH, decision on green logistic schemes is still pending and it will be further agreed with FBiH Environmental Fund on approaches for realization of this activity in FBiH. In case of provision of support for the development of legislative documents relevant for the LCUD in

BiH, project has not faced with any difficulties and impediments ever since its initiation. Same also holds for the awareness raising activities, although in general it misses the focus as the finalization of core activities of the project (i.e. introduction of ESCOs in FBiH and RS) are in delay.

Overall, however, the project is off track, and is expected to partially achieve its end-of-project targets by project closure with significant shortcomings. Project results might be fully achieved by project closure if adaptive management is undertaken immediately. Adaptive management measures are needed for the realization of the core project activities: introduction of ESCO financial mechanisms in RS and FBiH, realization of ESCO pilot infrastructure projects and further adoption of ESCO financial mechanisms in the country; introducing IT waste management systems in FBiH and RS and realization of green infrastructure projects. However, project achieved significant progress in recent period in development of ESCO financial mechanisms in RS and FBiH, initiation of activities in RS regarding development of IT waste management system and preparation of waste management plans with green logistic schemes, thus the chances to reach the planned results of the Project have increased.

Focus on ESCO Mechanism: The project focus on developing ESCOs as a core financial mechanism has not been underpinned by detail analysis. The MTR team has not identified any example of functioning ESCOs in BiH. However, UNDP team conducted baseline assessment during the development of project document. Withal, UNDP team has constant communication with Project Board member institutions, both during the development of project document as well as during the initiation of activities regarding introduction of ESCO models in FBiH and RS. In order to be a more efficient, due to the delays in initiation of ESCO development activities, it has been decided that a detailed gap analysis relevant for introduction of ESCOs is to be conducted by local consultants engaged for the development of ESCOs in FBiH and RS (i.e. development of report on preconditions for ESCO in RS; development of criteria for selection of private partner; sustainability analysis of proposed ESCO model in RS; feasibility study for selected public buildings RS; development of bylaw document in FBiH that defines ESCO contracting modalities; analysis of potential roles of FBiH EF in ESCO model and development of draft ESCO contracts for public lightning and energy efficiency measures and their testing on selected public buildings, and feasibility study for selected public buildings in FBiH). The development of an innovative financial mechanism for financing low-carbon urban development projects and ESCO project is a one of the key issues for implementation of investments, introducing co-financing and further development of partnerships. Therefore, apart from the involvement of selected public partners for realization of pilot ESCOs, it is planned to have extensive discussion with private sector representatives, identified as potential ESCO companies, on what have been developed and proposed by the UrbanLED project. At a minimum, the basic ESCO market overview should be prepared and could for example contain desk research of ESCO experience in neighbouring countries (e.g. Croatia, Serbia) as an analysis of current practices.

GCF-UrbanLED cooperation and synergies: In order to secure synergetic action among these two projects as well as to increase the effects of project activities (i.e. to finance development of SECAPs for 37 municipalities rather than 15 as planned by the UrbanLED project), the cooperation between GCF and UrbanLED projects needs to be clearly elaborated and follow-up with joint decision making and promotion of results achieved. Following steps for the selection of infrastructure projects which are to be realized in line with ESCO models developed in FBiH and RS were developed by UrbanLED project team and communicated with LowCarbon and GED project teams:

e. 37 municipalities for which SECAPs have been prepared by the technical support of GCF-funded "Scaling-up Investment in Low-Carbon Public Buildings" (LowCarbon) project and UrbanLED will be the pool for selection of pilot municipalities

- f. Priority projects from SECAPs will be used as starting point for selection of projects to be implemented in accordance with the ESCO models
- g. Public facilities for which detailed energy audits have been prepared by the Green Economic Development (GED) and LowCarbon projects in SECAP municipalities will be used as a pool for selection of facilities for piloting the ESCO models in FBiH and RS
- h. Tracking the progress of the investments will rely on the data of the selected public facilities which are already inserted into the Energy Management Information System (EMIS); particularly the ones which are needed for emission reduction calculations

These steps were approved by the Project Board.

When it comes to the EMIS, one of the outcomes of UrbanLED project is its expansion both in terms of the number of public facilities for which the data will be compiled (amounting to 490 public facilities covered by EMIS until now) and their representatives educated for usage of EMIS (so far, 205 representatives, out of which 93 are females), as well as in the development of ESCO module for EMIS as its important asset. International Consultant for development of ESCO financial mechanisms in BiH is currently working on Guidebook for development of ESCO module for EMIS which will be finalized by the end of 2020.

Joint development of SECAPs represents a good example of the possible collaboration of two projects. Additionally, the analysis and presentation of cooperation and synergies between two projects should be reported in the PIR and other reports (e.g. minutes from the Project Board meetings).

Direction of support towards waste management and logistics. Project faced with significant delays for two different segments relevant for the waste management activities. Thus, an additional effort for negotiation with Project Board members for pending activities should be invested by the project team. In case of FBiH, IT waste management system is close to full operational functionality, while no activities on green logistic schemes have been initiated. In case of RS decision on development of IT waste management system awaited adoption of the amendment to the Law on waste management of RS that happened quite recently. This means that development of IT waste management system in RS will be initiated by the beginning of 2021 along with revision of waste disposal fees in RS. This progress increase alignment of project progress towards achievement of targets defined for waste management and logistics. However, Project Board needs to steer further activities under this Component; having in mind the lack of decision regarding development of green logistic schemes in FBiH.

Project Management and Governance: UrbanLED has suffered from sub-optimal management and governance. There have been a number of reasons for this, including the changes in project manager which have not favoured continuity, the absence of the CTA due to the travel restrictions caused by COVID-19 pandemic has deprived the project of expertise to drive change. However, the selection of project managers, and the wider management and governance of the project, has not taken sufficient account of the skills and expertise required to develop a functioning ESCO market. The management shortcomings mainly occurred due to the changes in perspectives and planning of the Project Board members institutions regarding the ESCO, PPP and IT system for waste management that cause delays in realization of project activities. Besides, project team invest a lot of time and efforts to achieve common ground regarding the approaches for implementation of core project activities. Although time consuming, such approach seems to be better option in order to reach sustainability of the project and to enhance sense of ownership over the main project outcomes.

Being aware on management shortcomings, project engaged two additional team members in the last 5 months (project officer with technical background focused on ESCO and project clerk). Currently, project management structure has 2 project officers and project clerk which are supervised by the CCM Programme

manager. Such decision was made in order to enhance synergies among UrbanLED, LowCarbon and GED projects.

COVID-19 and **UrbanLED's relevance and importance:** The COVID-19 pandemic, and the related negative impact on business activity, revenues and employee incomes, along with the associated increase in state debt, means that finding financially efficient ways of advancing a green-based economic recovery becomes more important. In this respect, the project's work around finding models that can use reimbursable/loan-based financing where possible becomes even more important, as well as working to ensure the wider financing ecosystem can evolve (for example, finding ways to move the EFs away from their principal focus of grant disbursement). In this respect, the project's potential contribution to supporting a green-based recovering from COVID-19 has increased in significance.

Still, it is worthwhile to mention EFs's obligations to participate in the economic recovery from the COVID-19 pandemic which increase the uncertainty regarding the EFs' ability to co-finance activities of the UrbanLED project.

UrbanLED communication and visibility: While UrbanLED's has implemented communication activities and developed communications outputs, based on the communication strategy developed, municipalities have not been provided with a full overview of the project and its various activities that are beneficial for local communities no doubt in part due to the delays in realization of concrete infrastructure measures. Going forward, a clearer and more proactive and dynamic communications strategy and information flow to external is recommended (including more use of social media, newsletters, webinars and short online presentations covering all of the project's components equally. Concretely, it should be based on concrete outputs of the project (i.e. SECAPs developed, waste management plans with green logistic schemes which will be developed, ESCO models to be developed, LCUD pilot investments to be implemented, and IT waste management systems).

Review Recommendations

The mid-term review recommendations are set out below:

No.	Recommendation
R1	Develop a short but well-researched scenario option(s) on how best to take UrbanLED forward. The project strategy should be revised in line with UNDP's adaptive management techniques in order to make clear work and time plan and to take the project forward. This should include: a. Ensuring the sustainability of financial mechanisms: A key issue in the options review and scenario development is to assess to what extent does the piloting which will be supported by the project can assure sustainable implementation of ESCO mechanism in BiH market? Part of this reflection should involve revisiting the work of the CTA expert ¹⁴ regarding the proposed financing of small-scale projects and to accelerate a process of ESCO piloting using a small-scale projects approach, including the intensification of cooperation and exchange of experience with neighbouring countries that advanced with ESCO implementation. Besides, project needs to intensify consultation process with private sector representatives identified as potential ESCO companies in BiH. This should include organization of webinars and discussion sessions on the draft ESCOs already developed. Such approach should provide valuable inputs needed for further advocating to responsible institutions (namely ministries

¹⁴ Louis Phillipe Lavoie.

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No.		Recommendation
		responsible for finance both at state and entity's levels) as a valuable segment to assure sustainability. When it comes to introduction of PPP, current climate within the country is unfavourable for such initiatives. Therefore, project strategy is aimed at provision of technical support needed for preparing analysis, assessments, recommendations so as to advocate for their future introduction. This activity has been realized in FBiH while the consent of Project Board institutions from RS is still pending. Project team will continue with discussions in this regard.
	b.	Focus on wider LCUD financial ecosystem: The scenario development should map out the LCUD financing ecosystem, and the needs, constraints and opportunities. This has not been done at this stage, mainly because of ESCO models which have not be developed yet. For example, banks are interested in the financing of low-carbon urban development projects including ESCOs, and are investing in analysing of the approach as well. However, basic information on the financial ecosystem is needed in order to propose a feasible financial mechanisms and possibilities for cooperation with financial institutions (e.g. EBRD, EIB, KfW) which have related credit lines. However, it should be emphasized that ESCO is included in the National Investment Framework, developed by LowCarbon project, which in a way could be treated as an attempt to assure sustainability of ESCO concept in BiH.
	c.	COVID-19 Green Recovery: It is recommended that the scenario development consider an explicit COVID-19 green recovery. The additional strain COVID-19 has placed on public finances (increased health expenditure, employee support, cost of reduced business activity etc.) means that it is imperative that public finance is used efficiently had achieves optimal leverage/catalytic effect. This means not giving expensive grant funding where reimbursable financing can be deployed. Therefore, activities on introducing innovative financing is of immense importance and COVID-19 economic consequences should be used as strong argument for their advocating at responsible institutions. Beyond the financial dimension, UrbanLED could consider specific stimulus or green recovery dimensions.
	d.	Specific plan on maximising GCF-UrbanLED Synergies: UrbanLED project team has engaged a highly technical person that will work with the LowCarbon project manager and under supervision of the Climate change mitigation Program Manager to ensure efficient and effective synergy between these two projects. Cooperation with the GCF project is needed and it is already ongoing (e.g. SECAPs preparation) the further details should be presented by the UNDP, in particular both projects' staff and coordinators.
	e.	Decision on technical assistance to support waste management and logistics (assess possibilities/directions in line with Project document/targets). Project face with significant delays for two different segments relevant for the waste management activities (Component 3 of the Project). In case of FBiH, no activities on green logistic schemes have been initiated while in case of RS – decision to initiate the development of IT waste management system happened quite recently, after the adoption of the Law on waste management of RS. Furthermore, decision to go with analysis of waste disposal fees in RS has been made quite recently as well. To be able to achieve the targets set for this component of the project (mainly referred to the emission reductions), Project Board of the UrbanLED project needs to make final decision on activities to be implemented under this Component. Having in mind

No.		Recommendation								
	the overall progre FBiH or not.	ss, this refers to the decision whether to go with green logistic schemes in								
	To be actioned by:	UNDP UrbanLED project team								
	Timeframe:	December 2020 – February 2021								
	project may need to r period of 12 months. (including rearranged line with project prop	Project duration and possible contract extension for at least 12 months: It is likely that the project may need to request a no-cost extension. The project extension should be at least for a period of 12 months. In addition to that, a new strategy on implementation should be adopted (including rearranged logical framework and workplan). However, the new strategy should be in line with project proposal, its targets and indicators that are already set up. This is a clear task for the project manager and coordinators.								
R2	on development of I piloting of ESCOs pla targets of the project planned originally. Th	Having in mind the recent progress made, particularly regarding the initiation of activities in RS on development of IT for waste management system, finalization of ESCOs in FBiH and RS, piloting of ESCOs planned for 2021, there are enough arguments for optimism that planned targets of the project shall be reached although with some delays in regard to the timeframe planned originally. Therefore, it is anticipated that the project extension in the duration of 12 months will be sufficient to finalize all activities of the project.								
	To be actioned by:	UNDP UrbanLED project team								
	Timeframe:	December 2020 – March 2021								
R3	Devise and agree a new project strategy with the aim to reach the project's targets. It would appear that some project targets as currently set up as too ambitious (e.g. target on amount of project-facilitated investment in LCUD (including co-financing), tCO2eq direct emissions reductions, level of MRV system implementation). They need to further overview and justify the mid-term targets towards the achievable ones. Besides, MTR team noticed an omission in the logframe indicator which defines tCO2eq direct emissions reductions – instead of 18,592.5 tCO2eq direct emissions reductions calculated in the GEF tracking tool based on the annual direct emission reductions, the indicator was calculated based on the sum of direct and indirect emission reductions.									
	To be actioned by:	UNDP UrbanLED project team								
	Timeframe:	December 2020 – March 2021								
R4	Involvement of key stakeholders: During the initiation of activities regarding ESCO mechanisms, project identify entities' ministries of energy and finance, including the state-level ministry of finance, as important stakeholders to be involved. Initial meetings were planned but not able to be organize due to the COVID-19 situation. Project includes users of the IT waste management system in FBiH (municipalities, cantonal services, private companies, etc.) and disseminate information on its development. Trainings on the usage of the IT waste management system in FBiH are postponed due to the COVID-19 situation. There is scope to involve municipalities to a greater extent, and a more structured involvement of at least some IFIs and possible other financing actors (e.g. local commercial banks) should also be considered. To be actioned by: UNDP UrbanLED project team									
	Timeframe:	December 2020 – March 2021								

No.		Recommendation
R5	significant overhaul ar after the MTR. Dependence project, one possible of with the GCF project in with an external speci- of ESCO and/or other other projects (e.g. GC that performs manage synergies and streng management shortcom (project officer with te management structure	The project management and governance of UrbanLED will require a nd strengthening, in part influenced by the strategy and target results fixed ding also on the scale of synergies and increased cooperation with the GCF option might be that management of UrbanLED is more closely integrated nanagement (while retaining separate budget resourcing etc.), and possibly alist hired to drive the change and lead the development and deployment innovative financial mechanisms. The cooperation between UrbanLED and CF, GED) should be coordinated by Programme Manager for CC Mitigation, ement and cooperation of all UNDP CO B&H Mitigation projects. Therefore, gthen management of UrbanLED will be reached. Being aware on mings, project engaged two additional team members in the last 5 months echnical background focused on ESCO and project clerk). Currently, project e has 2 project officers and project clerk which are supervised by the CCM Such decision was made in order to enhance synergies among UrbanLED, projects. UNDP UrbanLED project team
	Timeframe:	December 2020 – January 2021
R6	needs to be strengthe understanding of the p drafts and policy pap awareness-raising eff important stakeholde	ention and visibility: UrbanLED's communication to external stakeholders ened, and in particular towards municipalities, to allow them to have a full project and its various activities (including for example prepared legislation ers). Going forward this should include a dedicated communications and ort, focused on SECAPs and ESCO, for municipalities as a distinct and r group. Besides, UrbanLED, LowCarbon and GED projects should take a each toward municipalities and secure coordination.
	To be actioned by:	UNDP UrbanLED project team
	Timeframe:	December 2020 – February 2021
R7	ESCOs and low-carbon the monitoring and Consultant for develop	nection between ESCO projects and EMIS. It is important that EMIS covers in urban development projects energy savings and emissions reduction for verification, including pilot LCUD projects. Therefore, International pment of ESCO financial mechanisms in BiH shall finalize the Guidebook on which should be further tested and discussed on regional level.
	To be actioned by:	UNDP UrbanLED project team
	Timeframe:	December 2020 – February 2021

Review Ratings

The table below sets out the review ratings:

Table 5.1 - Overview Review Ratings

Measure	Project Area	MTR Rating
Project Strategy	N/A	
	Objective: To leverage investment in low-carbon	Moderately Unsatisfactory
	urban development in BiH thereby promoting	
	safer, cleaner, and healthier cities and reducing	
	GHG emissions	
	Number of new development partnerships with	Moderately Satisfactory
	funding for improved energy efficiency and/or	
	sustainable energy solutions targeting underserved	
	communities/groups and women.	
	Amount of project-facilitated investment in LCUD	Highly Satisfactory
	tCO2eq direct emissions reductions (which are	Moderately Unsatisfactory
	attributable to the project-facilitated investments	
	in LCUD made during the project's supervised	
	implementation period, totaled over the respective	
	lifetime of the investments	
	Number of project beneficiaries, including % of	Moderately Unsatisfactory
	women	
	Outcome 1: Innovative Financing Mechanisms for	Moderately Unsatisfactory
	Implementation of Low-Carbon Urban	
	Development Concept (LCUD)	
Progress	Outcome 1.1 Status and level of capitalization of	Moderately Unsatisfactory
Towards Results	the financial mechanism (ESCO Funding window)	
	Outcome 1.2. Number of staff at EFs and other	Moderately Satisfactory
	stakeholders trained on the operation of ESCO	
	Fund and other innovative financing mechanisms	
	(including number of women)	
	Outcome 1.3. Status of MRV system	Moderately Unsatisfactory
	Outcome 2: Low-carbon public buildings and	Moderately Unsatisfactory
	utilities	
	Outcome 2.1: Number of public facilities and	Moderately Satisfactory
	utilities covered by EMIS on municipal level	
	Outcome 2.2.: Number of people trained in energy	Moderately Unsatisfactory
	management and LCUD project design and	
	implementation (and % women)	
	Outcome 2.3.: Number of infrastructural LCUD	Moderately Unsatisfactory
	projects implemented	
	Outcome 3: Status of MRV for waste sector	Moderately Unsatisfactory
	Outcome 3.1.: Status of MRV for waste sector	Moderately Unsatisfactory
	Outcome 3.2.: Reduction in fuel consumption from	Moderately Unsatisfactory
	the municipal waste transportation (% to baseline)	
	in pilot municipalities	

	Outcome 4: National and sectoral policies, institutional coordination and awareness raising on low carbon urban development	Moderately Satisfactory
	Outcome 4.1.: Status of relevant LCUD enabling rules and regulations	Moderately Satisfactory
	Outcome 4.2.: Number of people reached out to by national LCUD awareness raising campaign	Moderately Unsatisfactory
Project Implementation & Adaptive		Unsatisfactory
Management Sustainability		Moderately Likely

6 ANNEXES

Annex I: Audit Trail

Author	Para No./ comment	Comment/Feedback	MTR team
	location	on the draft MTR	response and actions taken
		report	
John O'Brien	General comment of	October 5 th , 2020:	MTR report has been
	the overall quality of	This report suffers	updated as per progress
	the report	from a lack of	made with regard to ESCO
		technical knowledge	development and structure
		of how to build an	of project implementation
		ESCO market or how	team (i.e. employment of
		to make EMIS	new personnel). Project is
		successful. Most of	on track for introducing
		the recommendations	ESCOs in FBiH and RS and
		are very general and	their piloting will be
		not specific. It would	initiated in 2021. Mid-term
		help to add the 'Who, When, How' for each	co-financing has been achieved and this
		recommendation and	information has been
		also to go into more	inserted into the report.
		detail about how the	Recommendations have
		GCF and GEF projects	been restructured to a more
		can work more	straightforward form
		closely together.	(including "Who, When,
		The targets of the	How" component) while the
		project cannot be	connections among GCF and
		changed.	GEF projects have been
		The MTR should	elaborated further.
		elaborate in more	Furthermore, new project
		detail a strategy of	team structure (lead by the
		how these targets	CCM Programme Manager)
		can be reached rather	will assure additional
		than leaving	cohesion among these two
		everything up to a	projects.
		'new consultant' who	
		will be hired. There is no	
		elaboration of how	
		the project might	
		meet the \$40M co-	
		financing target.	
		There is no clear	
		elaboration of the	
		new strategy.	
		This project has no	
		full time Project	
		Manager now and an	
		international CTA	
		living in Canada. The	

		international CTA has visited BiH once in over a year. This is not enough. Urgent adaptive management is needed or the project should be closed.	
John O'Brien	Chapter 1.3. Project Progress Summary	September 30th, 2020: I see no dates here. When was the project designed? When did it start? When was the inception workshop. What did that decide? When was the project manager hired etc.	Chapter has been updated in line with the comment.
John O'Brien	Review Conclusions (Summary Table); Project progress towards outcomes	September 30th, 2020: I thought GCF project is doing this (SECAPs). Where is the difference.	It has been further elaborated that this activity has been jointly implemented by GCF and GEF projects and that SECAPs will be used as starting point for selection of pilot ESCO projects by UrbanLED project. This was added in order to further elaborate the synergies among GCF and GEF projects.
John O'Brien	Review Conclusions (Summary Table) Focus on ESCO mechanism	September 30th, 2020: In addition, no analysis of the success of ESCOs in neighboring countries.	An update of recommendations regarding ESCOs have been made explaining the current status of activities and plan for involvement of private sector in development of ESCO financial models in RS and FBiH. In addition, it is recommended to have the basic ESCO market overview that should contain desk

			receased of CCC everaging
			research of ESCO experience in neighbouring countries (e.g. Croatia, Serbia) as an analysis of current practices.
John O'Brien	Review Conclusions (Summary Table); GCF-UrbanLED cooperation and synergies	September 30 th , 2020: I suggest to say a bit more about the GCF project and where the two projects overlap (e.g – ESCO and EMIS). How could they two projects cooperate in more detail. What is the overlap. More details please.	More details on synergies added (it was fully elaborated how the SECAPs will be used for selection of ESCO projects) including the development of ESCO module in EMIS. Additionally, it was recommended that the analysis and presentation of cooperation and synergies between two projects should be reported in the PIR and other reports (e.g. minutes from the Project Board meetings).
John O'Brien	Review Conclusions (Summary Table); UrbanLED communication and visibility	September 30 th , 2020: What about project website?	Comment was not adopted since UrbanLED do not have its own website (as per UNDP CO rules). However, these conclusions were further updated to emphasize the need to have campaign that follows concrete results of the projects (focus on ESCO, SECAPs, IT waste management systems, green logistic schemes).
John O'Brien	Review Recommendations (Summary Table) General comment	September 30th, 2020: Each recommendation would benefit from a 'Who' 'When' and 'How'. The project team needs urgent strengthening should be a top recommendation in my view.	Recommendations have been updated in line with the comment and update of the MTR regarding the strengthening of project team has been made as well.
John O'Brien	Review Recommendations (Summary Table) R1 (Develop a short but well-researched	September 30 th , 2020: What does this mean?? There is a World Bank Loan. There is KfW. There is	Recommendation has been restructured as follows: a. Focus on wider LCUD financial ecosystem: The scenario

	T	T	
	scenario option(s) on how best to take UrbanLED forward)	EBRD. There are the national environmental funds. How will these institutions lend for ESCO? I predict they will not. Too risky. So this recommendation should be looked at more closely.	development should map out the LCUD financing ecosystem, and the needs, constraints and opportunities. This has not been done at this stage, mainly because of ESCO models which have not be developed yet. For example, banks are interested in the financing of low-carbon urban development projects including ESCOs, and are investing in analysing of the approach as well. However, basic information on the financial ecosystem is needed in order to propose a feasible financial mechanisms and possibilities for cooperation with financial institutions (e.g. EBRD, EIB, KfW) which have related credit lines. However, it should be emphasized that ESCO is included in the National Investment Framework, developed by LowCarbon project, which in a way could be treated as an attempt
			treated as an attempt to assure sustainability of ESCO concept in BiH.
John O'Brien	Project Implementation and Adaptive Management – Review Findings	September 30 th , 2020: General comment was that this chapter needs to be improved. Every MTR I have ever seen has tables here. Where are the tables showing the funds spent year by year???	Information on financial analysis and co-financing are inserted and in overall this chapter has been improved including info on improvement of project team structure and project logframe has been inserted/updated as well in line with the MTR findings (table 4.2.Progress Towards Results Matrix

		Where is the analysis of this financing? Where are the tables showing the cofinancing planned versus the cofinancing received.	(achievement of outcomes against end-of-project targets)
Sinisa Rodic	Review Conclusions (Summary Table) Focus on ESCO mechanism	October 12 th , 2020: Detailed market survey has not been prepared. However, during project preparation, UNDP team conducted baseline assessment, based on which this project component has been developed.	The conclusion has been revised in line with the comment mentioning that UNDP team conducted baseline assessment during the development of project document. Withal, UNDP team has constant communication with Project Board member institutions, both during the development of project document as well as during the initiation of activities regarding introduction of ESCO models in FBiH and RS. In order to be a more efficient, due to the delays in initiation of ESCO development activities, it has been decided that a detailed gap analysis relevant for introduction of ESCOs is to be conducted by local consultants engaged for the development of ESCOs in FBiH and RS.
Sinisa Rodic	Review Conclusions (Summary Table) GCF-UrbanLED cooperation and synergies	October 12 th , 2020: GCF – Urban LED projects are coordinated and target results are not and will not be counted as a result for the other project. However, activities that are conducted in combined efforts, coordinated and mutually funded can and will be	Update of this conclusion has been made explaining the concrete synergies on development of SECAPs and their further utilization for selection of ESCO pilot projects as follows: Following steps for the selection of infrastructure projects which are to be realized in line with ESCO models developed in FBiH and RS were developed by UrbanLED project team and communicated with

Γ	T .	
	reported/counted as	LowCarbon and GED project
	a result for each	teams:
	project. This is a value	a. 37 municipalities for
	added to each	which SECAPs have been
	project.	prepared by the technical
		support of GCF-funded
		"Scaling-up Investment in
		Low-Carbon Public
		Buildings" (LowCarbon)
		project and UrbanLED will
		be the pool for selection of
		pilot municipalities
		b. Priority projects from
		SECAPs will be used as
		starting point for selection of projects to be
		, ,
		implemented in
		accordance with the ESCO
		models
		c. Public facilities for which
		detailed energy audits
		have been prepared by
		the Green Economic
		Development (GED) and
		LowCarbon projects in
		SECAP municipalities will
		be used as a pool for
		selection of facilities for
		piloting the ESCO models
		in FBiH and RS
		d. Tracking the progress of
		the investments will rely
		on the data of the selected
		public facilities which are
		already inserted into the
		Energy Management
		Information System
		(EMIS); particularly the
		ones which are needed for
		emission reduction
		calculations
		These steps were approved
		by the Project Board.
<u>. </u>		

Andrea	Review Conclusions	October 12 th , 2020:	The information on now
Muharemovic		-	The information on new
iviunaremovic	(Summary Table) GCF-UrbanLED	The Urban Led project	project team structure added.
		will engage a highly	dudea.
	cooperation and	technical person that	
	synergies	will work with the	
		GCF PM and under	
		supervision of the	
		Climate change	
		mitigation Program	
		Manager to ensure	
		efficient and effective	
		synergy between	
		these two projects.	
Andrea	Review Conclusions	October 12 th , 2020:	This conclusion was updated
Muharemovic	(Summary Table)	The project has	in line with the comment
	Involvement of key	already identified	received and it is as follows:
	stakeholders	Ministries of energy	During the initiation of
		as important	activities regarding ESCO
		stakeholders. Initial	mechanisms, project
		meetings were	identify entities' ministries
		planned, but not	of energy and finance,
		organized due to	including the state-level
		Covid-19 situation.	ministry of finance, as
		The project includes	important stakeholders to be involved. Initial meetings
		users of the IT waste	were planned but not able
		system	to be organize due to the
		, (municipalities,	COVID-19 situation. Project
		cantonal services,	includes users of the IT
		private companies,	waste management system
		etc). There will be no	in FBiH (municipalities,
		changes in targets.	cantonal services, private
		enanges in carge cor	companies, etc.) and
			disseminate information on
			its development. Trainings
			on the usage of the IT waste
			management system in FBiH
			are postponed due to the
			COVID-19 situation. There is
			scope to involve
			municipalities to a greater
			extent, and a more
			structured involvement of at
			least some IFIs and possible
			other financing actors (e.g.
			local commercial banks)
A	Paritime Control 1	Ontobas 42th 2000	should also be considered.
Andrea	Review Conclusion	October 12 th , 2020:	Conclusion is revised as per
Muharemovic	(Summary table)	MRV for ESCO	the comment received;
	Development of clear criteria for selection	projects is under	criteria are listed.
	criteria ioi selection	development in	

of infrastructure	cooperation of GED 2
projects to be	project financed by
financed	Sweden. The LCUD
	project criteria exists
	and are agreed with
	the PB members on
	one of the meetings.

Annex II: Management Response

Project Title: Catalyzing Environmental Finance for Low-Carbon Urban Development

Project PIMS #: 5646

GEF Project ID (PMIS) #: 9151

Midterm Review Mission Completion Date: December 3rd, 2020 Date of Issue of Management Response: December 17th, 2020

Prepared by: Commissioning Unit

Context, background and findings

Recommendations are fully in line with current status of the project activities, including the situation regarding the project management. Therefore, during the MTR process, Energy and Environment Sector has already taken the steps needed to build-up the project team by hiring the highly technical staff for a position of project officer. As of now, project team has revised structure (containing of two project officers, one project clerk which are to be led by the CCM Programme manager).

As the MTR process has been prolonged, due to the COVID-19 pandemic, the findings have been updated in line with the current status of activities. Having in mind the recent progress made, particularly regarding the initiation of activities in RS on development of IT for waste management system, finalization of ESCOs in FBiH and RS, piloting of ESCOs planned for 2021, there are enough arguments for optimism that planned targets of the project shall be reached although with some delays in regard to the timeframe planned originally. Therefore, it is anticipated that the project extension in the duration of 12 months will be sufficient to finalize all activities of the project.

Midterm Review recon	nmendation 1. Develop	a short but well-researched s	cenario option(s) on how
best to take UrbanLED	forward			
Management response	: Enhance cooperation v	with responsible institutions a	and ensure syne	ergetic
actions	-		_	_
Key action(s)	Time frame	Responsible unit(s)	Tracking	
			Comments	Status
Provide support for	December 2020 –	Project implementation		
finalization of ESCO	March 2021	team		
financial mechanisms		Project Board		
in RS and FBiH		СТА		
Provide support for	March 2021 – Until	Project implementation		
piloting of ESCO	the end of project	team		
financial mechanisms	implementation	Project Board		
in RS and FBiH		СТА		
Advocating and	December 2020 –	Project implementation		
promotion of ESCO	Until the end of	team		
financial mechanisms	project	Project Board		
	implementation			

	l — •			
Provide support for	February 2021 – Until	Project implementation		
advocating on	the end of project	team		
benefits of PPP	implementation			
Enhance synergies	December 2020 –	Project implementation		
among UrbanLED and	Until the end of	team		
LowCarbon projects	project			
	implementation			
Provide support for	December 2020 –	Project implementation		
finalization of IT	Until the end of	team		
waste management	project	Project Board		
systems in RS and	implementation			
FBiH and their further	•			
usage by responsible				
institutions				
Provide support for	December 2020 –	Project implementation		
preparation of green	Until the end of	team		
logistic schemes in RS	project	Project Board		
and FBiH	1	Froject Board		
	implementation	Duningst insulance at the con-		
Provide support for	December 2021 –	Project implementation		
realization of waste	Until the end of	team		
management	project	Project Board		
infrastructure	implementation			
projects in RS and				
FBiH				
	· · · · · · · · · · · · · · · · · · ·	uration and possible contract		
months & 3. Devise and	d agree a new project str	rategy with the aim to reach t	he project's tar	gets
Management response	: Develop a clear work p	lan to take project forward		
Key action(s)	Time frame	Responsible unit(s)	Tracking	
			Comments	
			Comments	Status
Revise project	December 2020 –	Project implementation	Comments	Status
		Project implementation team	Comments	Status
logframe and develop	December 2020 – January 2021	•	Comments	Status
logframe and develop a clear work plan	January 2021	team	Comments	Status
logframe and develop a clear work plan Tracking of progress	January 2021 March 2021 – Until	Project implementation	Comments	Status
logframe and develop a clear work plan	January 2021 March 2021 – Until the end of project	team	Comments	Status
logframe and develop a clear work plan Tracking of progress made	January 2021 March 2021 – Until the end of project implementation	Project implementation team	Comments	Status
logframe and develop a clear work plan Tracking of progress made Midterm Review recon	January 2021 March 2021 – Until the end of project implementation mendation 4. Involvement	Project implementation team ent of key stakeholders		
logframe and develop a clear work plan Tracking of progress made Midterm Review recon Management response	January 2021 March 2021 – Until the end of project implementation mendation 4. Involvementation	Project implementation team		
logframe and develop a clear work plan Tracking of progress made Midterm Review recon Management response cooperation with stake	January 2021 March 2021 – Until the end of project implementation mendation 4. Involvementation ended the implementation the implementation and involvementation the implementation the	Project implementation team ent of key stakeholders entation of project's activities	s through inten	
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promotion of ESCO until the end of the team				Comments	Status
	Development and	December 2020 –	Project implementation		
module in EMIS project	promotion of ESCO	until the end of the	team		
	module in EMIS	project			

Annex III: Review Bibliography

- 1. Catalysing Environmental Finance for Low-carbon Urban Development in Bosnia and Herzegovina: Environmental and Social Management Plan (ESMP).
- 2. Catalysing Environmental Finance for Low-carbon Urban Development in Bosnia and Herzegovina: Inception Report.
- 3. Catalysing Environmental Finance for Low-carbon Urban Development in Bosnia and Herzegovina: Model Activity Components.
- 4. Catalysing Environmental Finance for Low-carbon Urban Development in Bosnia and Herzegovina: Project Document.
- 5. Catalysing Environmental Finance for Low-carbon Urban Development in Bosnia and Herzegovina: Project Implementation Review (PIR) 2019.

- 6. Catalysing Environmental Finance for Low-carbon Urban Development in Bosnia and Herzegovina: Project Implementation Review (PIR) 2020.
- 7. Catalysing Environmental Finance for Low-carbon Urban Development in Bosnia and Herzegovina: Vertical Fund COVID Survey April 2020.
- 8. Catalysing Environmental Finance for Low-carbon Urban Development in Bosnia and Herzegovina: Technical Annex VII- Energy Savings Model
- 9. Energy Service Companies in Europe: Status report 2005, Bertoldi Paolo, Rezessy Silvia, European Commission, DG JRC, Institute for Environment and Sustainability, Renewable Energies Unit.
- 10. Guidance for Conducting Midterm Reviews of UNDP-Supported, GEF-Financed Projects, Ullrich Stephanie (UNDP-GEF Fellow), UNDP-GEF Directorate, 2014.
- 11. Minutes of the First Project Board Meeting "Catalysing Environmental Finance for Low-carbon Urban Development" project (URBAN LED).
- 12. Progress Towards Results Matrix (Achievement of outcomes against End-of-project targets): Catalysing Environmental Finance for Low-Carbon Urban Dev.
- 13. Top 5 Reasons Why ESCOs Have Failed to Realize the Full Potential of Energy Efficiency Part II, Kumar Satish, Schneider Electric.
- 14. Tracking Tool for GEF 6 Climate Change Mitigation Projects.

Annex IV: List of Stakeholders Consulted

Table 2.2: Overview Proposed Stakeholders Interviews

No.	Name	Position	Organisation/Department
1.1	Amra Zorlak	M&E Specialist	UNDP BiH
1.2	Andrea Muharemovic	Environmental Development Project Manager	UNDP BiH
1.3	Alisa Grabus	Energy and Environment Sector Associate	UNDP BiH
1.4	Raduška Cupać	Energy and Environment Sector Leader	UNDP BiH
1.4	Senka Mutabdzija Becirovic	Project Officer	UNDP BiH
1.5	John O' Brien	RTA, Climate Change Mitigation	UNDP Regional Hub Istanbul
1.7	Siniša Rodić	CCM Programme manager	UNDP BIH
1.8	Siniša Ubiparipović	Project manager of the GCF Low Carbon project	UNDP BiH
1.9	Elvis Hadžikadić	GED Project Manager	UNDP BiH
1.10	Louis Philippe Lavoie	International consultant for development of ESCO in BiH	Own organisation
1.11	Azrudin Husika	Local consultant for development of ESCO in FbiH	Own organisation
2.1	Mirza Hujić	Assistant minister for water resources, tourism and environmental protection	Ministry of Foreign Trade and Economic Relations of BiH (MOFTER)
2.2	Senad Oprašić	Head of the department for environmental protection/ GEF operational focal point	Ministry of Foreign Trade and Economic Relations of BiH (MOFTER)
2.3	Admir Softic	Assistant minister for energy	Ministry of Foreign Trade and Economic Relations of BiH (MOFTER)
2.4	Almira Kapetanovic	Head of department for strategic and planning documents	Ministry of Environment and Tourism of Federation of BiH (MET FBiH)
2.5	Svjetlana Radusin	Assistant minister for environmental protection	Ministry of Spatial Planning, Construction, and Ecology of Republika Srpska (MSPCE RS),

No.	Name	Position	Organisation/Department
2.6	Milos Jokic	Assistant minister for project coordination and development	Ministry of Spatial Planning, Construction, and Ecology of Republika Srpska (MSPCE RS),
2.7	Jasmina Kafedzic	Head of department for energy eficency	Environmental Fund of the Federation of Bosnia and Herzegovina
2.8	Indira Sulejmanagić	Head of the department for environmental protection	Environmental Fund of the Federation of Bosnia and Herzegovina
2.9	Srdjan Todorovic	Director	Fund for Environmental Protection and Energy Efficiency of Republika Srpska
2.10	Milena Lončar	Representative of Doboj municipality (selected for development of SECAP)	
2.11	Hamzalija Hojkurić	Representative of Tešanj municipality (selected for development of SECAP)	
2.12	Duško Stojanović	Representative of Teslić municipality (selected for development of SECAP)	
2.13	Esma Manić (for Teslić) Adi Tanović (for Doboj and Teslić)	Employees of Service Providers selected for preparation of SECAPs	

Annex V: Mid-Term Review Evaluation Framework

The mid-term review framework and evaluation questions are set out below:

Overview Evaluation Questions

No.	Evaluation Question (and Evaluation Parameter)	Data Collection Methods	
	Project Strategy		
1	To what extent are the objectives of the project still valid?	Desk Research Stakeholder interviews	
2	Are the activities and outputs of the project consistent with the overall goal, objectives and intended impacts and effects?	Desk research Stakeholder interviews Analysis and synthesis post-field interviews	
	Project implementation-Effectiveness		
3	To what extent the envisaged partnerships in the implementation of the project have been effective in the expected achievements in the country?	Desk research Stakeholder interviews Analysis and synthesis post-field interviews	
4	What have been the major factors influencing the achievement or non-achievement of the objectives?	Desk research (NB project reporting) Stakeholder interviews	
	Project implementation- Efficiency		
5	Have the project's actions to-date to achieve the outputs and expected outcomes been timely, effective and efficient (including cost-efficiency and w.r.t any implementation alternatives)?	Desk research (including review of implementation guidance and advice) Stakeholder interviews	
6	To what extent has the project managed to provide implementation guidance and advice on the delivery of the focus country activities?	Desk research (including review of implementation guidance and advice) Stakeholder interviews	
	Progress towards results		
7	To what extent has the project managed to achieve a development impact through the targeted capacity building of public, private, business development and social stakeholders, and development impact achieved can reasonably be attributed to, or be associated to the project?	Desk research (including comparison delivery of activities and outcomes against planning) Stakeholder interviews	
8	To what extent is the experience, impact, best practices and lessons learnt at the country and regional levels fed into national and international dialogue on the low carbon development for an enhanced global impact of similar project on Sustainable Development?	Desk research Stakeholder interviews (primarily)	

No.	Evaluation Question (and Evaluation Parameter)	Data Collection Methods	
9	What has happened (to-date) as a result of the project and what real difference has the activity made to the beneficiaries (including no. persons impacted)?	Desk research (where reported in project reporting and tracking) Stakeholder interviews	
10	How can the programme leverage existing partnerships with relevant continental institutions in ways that better coordinate efforts, minimize duplications and scale up impact?	Desk research (including comparison other initiatives) Stakeholder interviews	
	Sustainability prospects		
11	To what extent are the results sustainable? Will the outputs lead to benefits beyond the lifespan of the first phase of the project particularly in the country?	Desk research (analysis of impacts and contributory and sustaining factors) Stakeholder interviews	
12	How has the project been able to build sustainable capacity in the country in ways that would outlast the project?	Stakeholder interviews Overall analysis (post-field interviews)	
13	How could project results be further sustainably implemented and expanded, having in mind the contribution of low carbon development for local, as well as broader country, regional and global development?	Stakeholder interviews Overall analysis (post-field interviews)	
14	What were the major factors which influenced the achievement or non-achievement of sustainability of the project?	Desk research (NB implementation- influencing factors, challenges etc.) Stakeholder interviews Overall analysis (post-field interviews)	

Annex VI: Stakeholder Interview Questionnaire

The stakeholder interview questions are set out below:

Stakeholder Interview Questions

		UNDP	Ministries /	Municipal
	Field Interview Questions		Environment al Funds	Authorities
	Introductory Questions		diranas	
1	What is your general level of awareness and knowledge about the project (and its activities and results)?	х	х	х
2	Are there some things you would change on level of information exchange?	х	х	х
3	In which project activities are you involved?	x	х	х
II.	Implementation – Specific Questions			
4	Did city/municipality sign a letter of intent and/or commitment to co-finance LCUD projects? What are related achievements?	x		x
5	What is a level of readiness for co- financing of LCUD projects vs. actual project development and implementation?	х		x
7	Is the service provider for preparation of SECAPs selected and what is a level of SECAP preparation?	х		х
8	How does this influence the co-financing?	х		х
9	What is exact commitment of municipalities for co-financing of LCUD projects? How will it be deployed?	x		х
10	Are the four pilot-infrastructural LCUD projects identified?	х	х	х
11	What are the developments towards identification and deployment of innovative financial mechanism for low carbon development?	x	x	
12	Did project investigated willingness of private companies to participate in ESCO arrangements and is there any feedback from private companies on financial mechanisms and contracting models?	x	х	
13	Is market research foreseen on ESCO potential?	x	х	
14	Are there any difficulties in engagement of international consultants for the provision of TA?	x		

	Field Interview Questions	UNDP	Ministries / Environment al Funds	Municipal Authorities
15	What is the structure, level of implementation and the biggest challenges and/or obstacles to the implementation of waste management information system (WMIS)?	х	х	
16	Are you familiar with the status of revision of fees for disposal of municipal waste (including industrial nonhazardous waste) and propositions to introduce weight or volume-based tariffs for disposal of these types of waste?	x	x	
17	Are you familiar with the status in the development of waste management plans with green logistic schemes for waste management for four selected municipalities (Doboj, Zvornik, Bijeljina and Trebinje)?	х	x	
18	How you rate the process of adopting new legislation (e.g. Draft FBiH Law on air protection, Draft FBiH Rulebook on GHG Inventory; Annex to the FBiH Rulebook for conducting energy audits related to utility services; Amendment to the RS Law on waste management; Decree on Environmental Impact Assessment and Decree on Environmental Permitting; Strategic document on energy efficiency at BiH level; RS Law on Climate Change)?	X	x	
19	What are the biggest challenges in the process of adopting new legislation?	x	x	
III.	Implementation and Progress Towards Results			
20	What delays (if any) have influenced/impacted on project implementation, and how? What are the consequences of these delays?	х	x	
21	Which legislation is under the scope for preparation and improvement?	x	x	
22	What is the progress towards adoption of new legislation?	х	х	
23	How is overall project progress monitored and quantified?	х	х	
24	What are the main barriers for implementation of financial mechanisms, adoption of new legislation, co-financing of the LCUD projects, finalizations of SECAPs?	х	x	
25	What is the level of the project progress towards results?	x	x	

	Field Interview Questions	UNDP	Ministries / Environment al Funds	Municipal Authorities
26	What are the main barriers for project implementation?	x	x	
27	covid 19: What is/has been/(will) the influence of COVID 19 be(en) on the project's implementation? What are/will be the main consequences/changes for UrbanLED in the post-COVID 19 situation?	х	x	x
IV.	Follow-up Questions			
28	What are the successful and unsuccessful outcomes of the project?	х	х	х
29	What are the biggest hurdles for fulfilment of project's targets?	х	х	х
30	To what extent are the project results sustainable beyond the project end, and how could sustainability prospects/sustained impact be strengthened or expanded?	х	х	х
31	What are your recommendations for improvement in project implementation? What changes would you make now to ensure/increase the project's effectiveness and results between and project end?	x	x	х

Annex VII: Mid-Term Review Terms of Reference

Terms of References

Project Title:	MTR (UNDP-GEF) of the UrbanLED project	
Project:	LCUD	
Supervisor	Andrea Muharemovic, Environmental Development Project Manager	
Location:	Home Based with Travel to BiH – Sarajevo	
Travel is required:	Yes - Sarajevo, Banja Luka, Doboj, Tešanj, Teslić, Bijeljina	
Practice Area:	Climate and Disaster Resilience	
Type of Contract:	Standard – International; Standard – National	
Duration:	April 2020 – September 2020 (up to 27 working days; including one 10-days mission, including travel days, of the international consultant to BiH within two months of the start of the assignment)	
Presence in the UNDP premises	Partial presence	

1. Background and Purpose of the Consultancy:

This is the Terms of Reference for the UNDP-GEF Midterm Review (MTR) of the full-sized project titled Catalyzing Environmental Finance for Low-Carbon Urban Development (PIMS5646) implemented through the Implementing Partner, which is to be undertaken in 2020. The project started on the December 1st, 2017 and is in its third year of implementation. In line with the UNDP-GEF Guidance on MTRs, this MTR process was initiated before the submission of the second Project Implementation Report (PIR). The MTR process must follow the guidance outlined in the document *Guidance for Conducting Midterm Reviews of UNDP-Supported, GEF-Financed Projects* (see Annex I of the ToR).

Short description of the Project background: Due to a long period of neglect and under-investment, urban infrastructure in BiH, public and residential buildings, energy systems and utilities, waste management, and transport, are now in need of expansion and modernization. From a global environmental standpoint, this situation contributes to a steady increase in GHG emissions, primarily associated with energy use in public facilities. Public facilities are also the largest energy users and GHG emission sources in municipalities in BiH. Modernization, upgrade and expansion of municipal buildings, infrastructure, and services in BiH will improve the quality of urban life and achieve a range of important local and global environmental and sustainable development benefits.

To achieve abovementioned, the "Catalyzing environmental finance for low-carbon urban development" Project (UrbanLED) strives to leverage investment for transformational shift towards low-carbon urban development (LCUD) in Bosnia and Herzegovina thereby promoting safer, cleaner, and healthier cities and reducing urban GHG emissions. To enable this transformational shift, the project provides technical support towards the implementation of technically and economically feasible low-carbon solutions in key urban sectors and promotes their wider uptake by municipalities and private sector via dedicated financial mechanisms. Project supports key environmental finance institutions (i.e. environmental funds) to establish

innovative financial mechanisms for LCUD (Component 1). Under Component 2 and Component 3, the project works at the local level with relevant public authorities to help build their capacities to identify, carry out and monitor low-carbon projects in key urban GHG emitting sectors, public facilities and utilities (Component 2) and waste management and logistics/transport (Component 3). Under Component 4, project 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. In addition, national awareness raising, and an advocacy campaign is conducted to secure public support and promote behavioural changes toward low-carbon urban living.

The project has been financed by Global Environment Facility (GEF) and is directly implemented by UNDP Bosnia and Herzegovina Country Office. This is a five-years project (initiated in December 2017 with planned end date in December 2022). The amount of GEF trust fund is USD 2.37 mil. while parallel co-financing amounted to USD 44.42 mil.

The Project Board is comprised of the following institutions: Ministry of Foreign Trade and Economic Relations of BiH (this is also a senior beneficiary institution of the project), Ministry of Spatial Planning, Civil Engineering and Ecology of Republika Srpska, Ministry of Environment and Tourism of Federation of BiH, Fund for Environmental Protection and Energy Efficiency of Republika Srpska and Fund for Environmental Protection of FBiH.

Support of the UrbanLED project is fully embedded in the regular operations of the Fund for Environmental Protection and Energy Efficiency of RS and Fund for Environmental Protection of FBiH as two environmental finance institutions in BiH, thus ensuring sustainability of proposed financial mechanisms for infrastructural LCUD projects. Project also works with responsible ministries under Component 4, at the national and entity level; apart from the environmental funds. In particular, project works with: Ministry of Foreign Trade and Economic Relations of BiH, as well as the Ministry of Spatial Planning, Civil Engineering and Ecology of RS, the Ministry of Environment and Tourism of FBiH, Ministry of Industry and Energy of FBiH with harmonization of relevant state/entity level policies and regulations on low-carbon urban development, and institutional coordination within the environmental sector across relevant authorities.

At the level of local self-governments, project provide support to the 15 local self-governments in the preparation of Sustainable Energy and Climate Action Plans (SECAPs). Municipalities are further supported to collect and monitor data on urban energy use and GHG emissions through scaling up and institutionalizing the Energy Management Information System (EMIS). Apart from the energy efficiency measures, technical assistance of the project at the level of local self-governments is also devoted to the waste management sector, mostly through design and pilot of municipal green logistic schemes for waste recycling.

2. Duties and Responsibilities:

2.1 Scope of work

The MTR team will consist of two independent consultants that will conduct the MTR - one team leader (i.e. international consultant with experience and exposure to projects and evaluations in other regions globally) and one local team expert, from the country of the project.

The MTR team will first conduct a document review of project documents (i.e. PIF, UNDP Initiation Plan, Project Document, ESSP, Project Inception Report, PIRs, Finalized GEF focal area Tracking Tools, Project Appraisal Committee meeting minutes, Financial and Administration guidelines used by Project Team, project operational guidelines, manuals and systems, etc.) provided by the Project Team and Commissioning Unit.

Then, they will participate in MTR inception workshop to clarify their understanding of the objectives and methods of the MTR, producing the MTR inception report thereafter.

The MTR mission will then consist of interviews, including but not limited to the representatives of following institutions: 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 Federation of BiH, Fund for Environmental Protection and Energy Efficiency of Republika Srpska and Fund for Environmental Protection of BiH; executing agencies, senior officials and task team/component leaders, key experts and consultants in the subject area, Project Board, project stakeholders, academia, local government and CSOs, etc. and site visits to Doboj, Tešanj and Teslić as selected municipalities for which the technical assistance for development of SECAPs have been provided and Banja Luka and Bijeljina as two of five selected municipalities in Republika Srpska for which waste management plans along with feasibility studies for environmentally friendly transportation and waste management will be developed. The exact project site will be known in forthcoming period.

The MTR team will assess the following four categories of project progress and produce a draft and final MTR report. See the *Guidance for Conducting Midterm Reviews of UNDP-Supported, GEF-Financed Projects* for requirements on ratings. No overall rating is required.

1. Project Strategy

Project Design:

- Review the problem addressed by the project and the underlying assumptions. Review the effect of
 any incorrect assumptions or changes to the context to achieving the project results as outlined in
 the Project Document.
- Review the relevance of the project strategy and assess whether it provides the most effective route towards expected/intended results.
- Review how the project addresses country priorities.
- Review decision-making processes.

Results Framework/Logframe:

- Undertake a critical analysis of the project's logframe indicators and targets, assess how "SMART" the midterm and end-of-project targets are (Specific, Measurable, Attainable, Relevant, Timebound), and suggest specific amendments/revisions to the targets and indicators as necessary.
- Examine if progress so far has led to or could in the future catalyse beneficial development effects (i.e. income generation, gender equality and women's empowerment, improved governance etc...) that should be included in the project results framework and monitored on an annual basis.

2. Progress Towards Results

- Review the logframe indicators against progress made towards the end-of-project targets; populate
 the Progress Towards Results Matrix, as described in the *Guidance For Conducting Midterm Reviews*of UNDP-Supported, GEF-Financed Projects; colour code progress in a "traffic light system" based on
 the level of progress achieved; assign a rating on progress for the project objective and each
 outcome; make recommendations from the areas marked as "not on target to be achieved" (red).
- Compare and analyse the GEF Tracking Tool at the Baseline with the one completed right before the Midterm Review.
- Identify remaining barriers to achieving the project objective.

• By reviewing the aspects of the project that have already been successful, identify ways in which the project can further expand these benefits.

3. Project Implementation and Adaptive Management

Using the *Guidance for Conducting Midterm Reviews of UNDP-Supported, GEF-Financed Projects*; assess the following categories of project progress:

- Management Arrangements
- Work Planning
- Finance and co-finance
- Project-level monitoring and evaluation systems
- Stakeholder Engagement
- Reporting
- Communications

4. Sustainability

Assess overall risks to sustainability factors of the project in terms of the following four categories:

- Financial risks to sustainability
- Socio-economic risks to sustainability
- Institutional framework and governance risks to sustainability
- Environmental risks to sustainability

The MTR consultant/team will include a section in the MTR report setting out the MTR's evidence-based conclusions, in light of the findings.

Additionally, the MTR consultant/team is expected to make **recommendations** to the Project Team. Recommendations should be succinct suggestions for critical intervention that are specific, measurable, achievable, and relevant. A recommendation table should be put in the report's executive summary. The MTR consultant/team should make no more than 15 recommendations total.

Together with Guidance for Conducting Midterm Reviews of UNDP-Supported, GEF-Financed Projects (Annex I), following documents can be found on this link http://documents.undp.ba/procurement/UNDP-GEF-TOR-Annexes.zip:

Annex II: Progress Towards Results Matrix (Achievement of outcomes against End-of-project Targets);

Annex III: MTR Ratings & Achievement Summary Table for UrbanLED project and Midterm Review Evaluative Matrix Template;

Annex IV: List of Documents to be reviewed by the MTR Consultant; and Guidelines on Contents for the Midterm Review Report.

Details on UrbanLED project can be found on following web links: https://bit.ly/3d8cMaG & https://bit.ly/3d8cMaG

The total duration of the engagement will be approximately 27 days over a period of 23 weeks starting April 24th, 2020 and shall not exceed five months from when the consultant(s) are hired. The tentative MTR timeframe is as follows:

• 24th of April, 2020: Selection of the MTR Team

- 28th of April, 2020: Handover of project documents to the MTR team
- May 11th, 2020: Document review and preparation of the MTR Inception Report
- May 25th, 2020: Finalization and Validation of MTR Inception Report
- $8^{th} 19^{th}$ of June, 2020: MTR mission: stakeholder meetings, interviews, field visits
- June 19th, 2020: Mission wrap-up meeting & presentation of initial findings- earliest end of MTR mission
- 22nd of June 2nd of July, 2020): Preparation of draft report
- September 15th, 2020: Incorporating audit trail on draft report/Finalization of MTR report (note: accommodate time delay in dates for circulation and review of the draft report)
- September 23rd, 2020: Preparation & Issue of Management Response
- September 30th, 2020: Expected date of full MTR completion

The assignment will require partial presence in the UNDP premises (UNDP offices located in the UN House in Sarajevo). The assignment includes one 10-days mission, including travel days, of the international consultant to BiH within two months of the start of the assignment.

1.2 Deliverables/outputs

#	Deliverables / Outputs	# of Days per Task	Due Date	Percentage
1.	MTR Inception Report: MTR team clarifies objectives and methods of the Midterm Review no later than 2 weeks before the MTR mission.	6	29th of May, 2020	22%
2.	Presentation: Initial findings presented to project management and the Commissioning Unit at the end of the MTR mission.	1	19th of June, 2020	4%
3.	Draft Final Report Full report with annexes within 3 weeks of the MTR mission.	7	July 10th, 2020	26%
4.	Final Report Revised report with annexed audit trail detailing how all received comments have (and have not) been addressed in the final MTR report. To be sent to the Commissioning Unit within 1 week of receiving UNDP comments on draft. *The final MTR report must be in English.	13	September 15th, 2020	48%