



United Nations Development Programme

Government of Serbia

PIMS 5551: Serbia - Climate Smart Urban Development Challenge (CSUD)

Draft Mid-Term Review (MTR) Report

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11 December 2019

BASIC REPORT INFORMATION

Title of UNDP supported GEF financed project: Serbia - Climate Smart Urban Development Challenge (CSUD)

UNDP PIMS#: 5551

GEF project ID#: 9342

Mid Term Review time frame: February 2017 – August 2019

Date of Mid Term Review report: 20 November 2019

Region and countries included in the project: Serbia

GEF Operational Focal Area/Strategic Program: Climate Change

Executing Agency/Implementing Partner and other project partners: Ministry of Environmental Protection

MTR members (international consultant and national consultant): Mr. Manfred Stockmayer (international consultant), Mrs. Mirjana Strugar (national consultant)

Acknowledgements:

The MTR Team would like to thank all stakeholders for their time and efforts during the course of this midterm review, including UNDP Serbia, the Regional UNDP Office in Istanbul and the Serbian Ministry of Environmental Protection (MoEP). We are very glad that officials from the Government of Serbia, civil society and private sector entities made themselves available for discussions and sharing their insights on the project.

In particular, the MTR Team would like to thank the Project Team with Mr. Miroslav Tadic and Ms. Ana Seke for their patience in answering our questions; the Team of UNDP Serbia (Mrs. Francine Pickup – UNDP Resident Representative and Mr. Zarko Petrovic – Portfolio Analyst UNDP) and the Regional Technical Advisor (Mr. John O'Brien) for their valuable contributions and comments.

We hope that this report provides valuable inputs for the remaining lifetime of the project and contributes towards a successful implementation of the CSUD Project.

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ABBREVIATIONS

AERS	Serbian Energy Agency
CFC	Chlorofluorocarbon
CEO	Chief Executive Officer
CO2	Carbon Dioxide
CSO	Civil Society Organization
CSUD	Climate Smart Urban Development Challenge
DH	District Heating
FBRD	European Bank for Reconstruction and Development
FF	Energy Efficiency
FEC	Energy Efficiency Centre
	European Union
CEE	Clobal Environment Escility
	Giobal Environment Facility
	Deuteehe Cooollecheft für Internetionale Zucommenerheit
ICT	Information and Communication Technologies
ISS	Institute for Standardization
LPAC	Local Project Appraisal Committee
KfW	Kreditanstalt für Wiederaufbau
kW	Kilowatt
LR	Literature Review
MENRP	Ministry of Environment and Natural Resource Protection
MoE	Ministry of Energy
MoEP	Ministry of Environmental Protection
MoESTD	Ministry of Education, Science and Technological Development
MoF	Ministry of Finance
MoPALSG	Ministry of Public Administration and Local Self-Government
MoTTT	Ministry of Trade, Tourism and Telecommunications
Mtoe	Million tons of oil equivalent
MTR	Mid-Term Review
MW	Megawatt
M&E	Monitoring and Evaluation
NIM	Nationally Implemented Measure
NOx	Nitrogen Oxide
NPD	National Project Director
OECD	Organisation for Economic Cooperation and Development
OFP	Operational Focal Point
PA	Project Assistant
PB	Project Board
PBP	Performance-Based Payments
PIF	Project Identification Form
PIR	Project Implementation Reviews
PIU	Project Implementation Unit
PM	Project Manager
POPP	Programme and Operations Policies and Procedures
PPO	Public Procurement Office

UNDP Project Document for "Serbia - Climate Smart Urban Development Challenge (CSUD)"
The project under review: "Serbia - Climate Smart Urban Development Challenge (CSUD)"
Project Executive Board
Project Implementation Review
Project Information Management System
Project Management Unit
Project Preparation Grant
Polyurethane
Renewable Energy
Regional Technical Advisor
Supervisory Control and Data Acquisition
Senior CSUD Expert
Standing Conference of Towns and Municipalities
Serbian Environmental Protection Agency
Swedish International Development Cooperation Agency
Specific, Measurable, Achievable, Relevant, Time-bound
Terms of Reference
United Nations Development Programme
US Dollar

1. EXECUTIVE SUMMARY

1.1 Project Information Table

Project Title Serbia - Climate Smart Urban Development Challenge				SUD)		
UNDP Project ID (PIMS #):	5551	PIF Approval Date:		18.04.2016		
GEF Project ID (PMIS #):	9342	CEO Endorsement	Date:	16.12.2016		
ATLAS Business Unit, Award #	00087760,	Project Document (ProDoc) Signature	21.02.2017		
Proj. ID:	00094603	Date (date project b	began):			
Country(ies):	Serbia	Date project manag	ger hired:	01.03.2017		
Region:		Inception Workshop	o date:	18.05.2017		
Focal Area:	Climate Change	Midterm Review co	mpletion date:	20.11.2019		
GEF Focal Area Strategic Objective:	CCM-2 Program 3	Planned closing dat	Dec 2021			
Trust Fund [indicate GEF TF, LDCF, SCCF, NPIF]:	GEF	EF If revised, proposed op. closing date:				
Executing Agency/ Implementing Partner:	Ministry of Envir	Ministry of Environmental Protection				
Other execution partners:						
Project Financing	at CEO endorse	ment (US\$)	at Midterm Review (US\$)*			
[1] GEF financing:	US\$ 1,950,000		US\$ 1,087,443			
[2] UNDP contribution:	US\$ 100,000	US\$ 52,947 cash +				
			US\$ 25,000 in-kind			
[3] Government:	US\$ 5,000,000 cash +		US\$ 503,892 cash +			
	US\$ 400,000 in-	-kind US\$ 200,000 in-kir		d		
[4] Other partners:	US\$ 4,960,000 d	cash +	⊦ US\$ 747,978 cash			
US\$ 100,000		ו-kind US\$ 100,000 in-kind		d		
[5] Total co-financing [2 + 3+ 4]:	US\$ 10,560,000		US\$ 1,629,817			
PROJECT TOTAL COSTS [1 + 5]	US\$ 12,510,000		US\$ 2,717,260			

1.2 Project Description

The "Serbia - Climate Smart Urban Development Challenge (CSUD)" project (PIMS #5551) started in February 2017 and is now in its third year of implementation. The objective of the project is to promote climate-smart urban development. By a challenge prize approach, it seeks to actively engage the civil society, public and business communities to come up with new and innovative ideas on how to contribute to this in practice and to jointly develop, finance and implement these ideas further. Broader and more effective use of new information and communication technologies (ICT) to enable and spearhead innovation and productivity gains, optimization of the resource use (e.g. by improved energy efficiency and resource sharing), reduction of physical mobility needs, more attractive public and non-motorized transport, increased use of renewable energy sources, climate smart waste management (improved recycling schemes and waste to energy) and other measures contributing to climate change mitigation are among the topics to be considered in this context. The project has three major expected outcomes:

- Outcome 1: Improved access to and availability of data by an open data approach for development, management and monitoring of CSUD related performance of Serbian municipalities.
- Outcome 2: New innovative technical and systemic solutions and business models contributing to climate
- Outcome 3: Knowledge management and M&E to facilitate learning, scaling up and replication of project results.

The Project Objective is to promote innovation and community engagement for climate smart urban development (CSUD) in Serbia. The project is expected to generate GHG emission reductions of 100,000 tons of CO2eq calculated over 20 years' lifetime of the investment and to benefit a total of 20,000 people.

The CSUD project is implemented following UNDP's national implementation modality (NIM with UNDP support), according to the Standard Basic Assistance Agreement between UNDP and the Government of Serbia. The Executing Agency is the Ministry of Environmental Protection of Serbia (MoEP), which is responsible and accountable for managing this project, including the monitoring and evaluation of project interventions, achieving project outcomes, and for the effective use of the project resources.

A Project Implementation Unit (PIU) was established by UNDP, including a Project Manager (PM), a Senior CSUD Expert (SCE) and a Project Assistant (PA). The Project Manager is responsible for overall project coordination and implementation, consolidation of work plans and project documentation, preparation of quarterly progress reports, reporting to the project supervisory bodies, coordinating work of the PIU and supervising the work of the project experts and project staff. The Project Board (PB) is responsible for making by consensus, management decisions when guidance is required by the Project Manager, including recommendation for UNDP/Implementing Partner approval of project plans and revisions. The PB consists of the MoEP and UNDP and is chaired by the National Project Director (NPD).

1.3 **Project Progress Summary**

The project Document was signed on Feb 22, 2017. The project started on-time and the Inception Workshop was held in May 2017 less than 3 months after signature of the project document, the Inception Report was presented in June 2017. The CSUD knowledge management portal is established (<u>http://inovacije.klimatskepromene.rs/</u>) and gives a good overview on the innovation and the open data challenge, and provides various documents and multimedia content on the innovations. The website also includes an innovation platform, which introduces 12 mature projects.

To inform interested stakeholders about the opportunities under the CSUD project, a considerable number of workshops and seminar were organized and the Project Team participated in various public events. At the majority of these events the entire CSUD Project and both challenges (Open Data Challenge and Innovation Challenge) were presented. The most important events were:

- 5 preparatory workshops in Belgrade, Nis, Novi Sad, Krusevac and Kragujevac, in total 286 participants
- 4 info days (in Subotica and three times in Belgrade), in total 148 participants
- Gender and Climate Change, 6 outreach events, total of 241 participants
- Climathons in Sabac and Kragujevac, total of 50 participants

- International mid-term event on 11 October 2019 in Belgrade, 140 participants
- Various other public events, such as EcoExpo, Eco Fair, Climate Diplomacy Week, Belgrade Security Forum

The Open Data Challenge was announced in November 2017 with a deadline for applications in February 2018. 15 municipalities handed in their proposals, out of which the following 8 project were selected:

- Zvezdara Municipality: An innovative solution for the online monitoring and analysis of electricity consumption in public buildings
- City of Šabac: Project for the collection of data on GHG emissions from domestic heaing in the city of Šabac
- City of Sremska Mitrovica: Animal water polluters inventory in the territory of the city of Sremska Mitrovica
- City of Kruševac: Energy and financial calculator "The city's new face" The climate smart city of Kruševac
- Municipality of Krupanj: A calculator for the future!
- City of Kraljevo: Keep in touch
- City of Kragujevac: Kragujevac, open data in combating climate change
- Ćuprija Municipality: The creation of a repository of energy efficient materials, public and residential buildings.

The City of Nis showed strong interest in participating in the project, although they did not participate in the Open Data Challenge. They officially joined the Incubator in September 2019.

Between June and December 2018, the projects received support through the Climate Incubator to turn their ideas into concrete projects that will contribute to data collection, analyses and management, opening data to the broader community and involving citizens in the work of the local government. Implementation of the data management systems started in early 2019.

CSUD performance reports were presented by 2 municipalities, Zvezdara and Kragujevac. The performance reports give a good overview on progress with implementation and achieved results.

At the moment, the on-line information management system is operating for three municipalities, these are:

- Kragujevac (<u>https://www.data.kragujevac.rs/</u>): website shows historic data (2015-2018) on energy consumption in buildings and fuel consumption of vehicles.
- Zvezdara (<u>https://www.solarweb.com/Home/GuestLogOn?pvSystemid=268a767f-01e5-46df-aaf7-ce7704d42676</u>): website shows live data on the fuel consumption of the public swimming pool.
- Nis has published a large set of data related to climate change (waste management number and location of trash bins, transportation routes, public lightning, agricultural land, public transportation, etc.) data was published on: <u>https://data.gov.rs/sr/datasets/?organization=5a93d2d0cbe3c80f19373cc8&page=1</u>

The Innovation Challenge was announced in November 2017 with a deadline for applications in January 2018. Between March and May 2018, an additional call for advanced projects was initiated to secure projects which are in further stages of development.

A total of 111 applications were submitted in the call, with the majority of applications from individuals, CSOs, local self-governments, research institutions and companies. Applications were received from all parts of Serbia. After technical assessment and evaluation by independent experts, 34 innovative ideas were selected, all aiming to reduce the GHG emissions in the areas of energy, transport, waste management, agriculture, forestry. 25 applicants have received innovation award, additional 9 ideas were selected due to their potential, these will be given the opportunity to receive support for further development of their concepts through the project incubator. The call for advanced projects resulted in 4 additional projects, bringing the total number of selected projects to 38.

Throughout 2018, all 38 project ideas in the Climate Incubator have received mentorship and coaching support and eventually their progress has been evaluated by mentors, the Ministry and UNDP. In November 2018 a final scoring table was elaborated to rank projects based on their performance and progress throughout incubation/acceleration process. Based on this ranking, the 5 best innovation projects were selected for receiving co-financing for implementation. Financing is provided through Performance-Based Agreements, which link the provision of fund to the achievement of individual milestones agreed between the projects and UNDP. Typically, projects receive 3-4 payments based on achievement of indicators, there is no advance payment.

The five selected projects and companies are:

- Sanicula Ltd. Innovative approach to production of pellets from medicinal herbs
- Esotron Ltd. Reduce garbage for collective health and happiness
- Jugo-Impex e.e.r. Polyurethane foams end of waste
- Green Energy Point Ltd. New Approach in Production of Heat and Electricity from Woody Biomass
- Public Utility Company for Production and Distribution of Thermal Energy, Šabac -Establishing SCADA system for Supervision and Management of Heat Distribution Substations at district Heating System of the City of Šabac

An international event was held in Belgrade on 11 October 2019 as the international mid-term CSUD knowledge management workshop/seminar. The event was held under the title "Citizens Build Smart Cities" and attracted more than 140 national and international participants.

1.4 MTR Ratings & Achievement Summary Table

The following table summarizes the MTR ratings and achievements.

Measure	MTR Rating	Achievement Description
Progress Towards Results	Objective: Moderately Satisfactory (MS)	 Complementary financing is at US\$ 1.64 million, consisting of US\$ 0.56 million co-financing in cash and US\$ 0.23 million in-kind from existing partners US\$ 0.85 million of additional cash co-financing was secured Considerable gap between committed and actual co-financing from MoEP

Table 1: Summary Review of Project¹

¹ The Project outputs are rated on the following scale: 6: Highly satisfactory (no shortcomings), 5: Satisfactory (minor shortcomings), 4: Moderately satisfactory, 3: Moderately unsatisfactory (significant shortcoming), 2: Unsatisfactory (major problems); and 1: Highly unsatisfactory (severe shortcomings). Sustainability is rated on the following scale: 4: likely, 3: moderately likely, 2: moderately unlikely, 1: unlikely.

		 Around 1,350 persons participated in various information and capacity building events No gender disaggregation available Projects financed up to now expected to generate 51.8 ktons of CO2 over 20 years lifetime Investigation of additionality and monitoring of actual implementation is necessary to confirm these figures for the Terminal Evaluation
	Outcome 1: Moderately Satisfactory (MS)	 3 municipalities have on-line information management systems operating Improvement of consistency and replicability are important to achieve sustainability of selected data management approaches 3 municipalities have made their data in the domains of energy, transport and waste management publicly available on websites Number of data users of the piloted open data portals within the City of Kragujevac and Zvezdara Municipality is more than 1,000, but data couldn't be confirmed during MTR 2 municipalities prepared progress reports covering the
	Outcome 2: Satisfactory (S)	 period June 2018 – June 2019 5 projects were selected for co-financing, 3 of the projects are already in operation (Sanicula, Esotron and Green Energy Point) Around 1,350 persons participated in various information and capacity building events
	Outcome 3: Satisfactory (S)	 At the time of the MTR mission, no proper MRV system for emission reductions resulting from project activities has been in place CSUD web-site (<u>http://inovacije.klimatskepromene.rs</u>) has been established and then transformed so that it also performs function of knowledge management web-portal
Project Implementatio n & Adaptive Management	Satisfactory (S)	Management arrangements are satisfactory, the project is very well managed by the Project Team with support from UNDP. The Project Team has delivered excellent and managed to promote a new, very innovative approach, which is well appreciated by all relevant stakeholders in Serbia. Stronger involvement of the MoEAP would be helpful in further promoting project activities and disseminating lessons learnt.
Sustainability	Moderately likely (ML)	There are limited risks to the sustainability of project impacts and it is reasonable to expect that the majority of Outcomes will be sustained. The biggest risk is in financial risks to sustainability, specifically with co-financing from the Ministry of Environmental Protection. Lack of funding could have a negative impact on Outcomes. There are only limited socio- economic, institutional and environmental risks. Overall sustainability is rated as Moderately Likely.

1.5 Concise summary of conclusions

The following conclusions can be drawn:

- By defining the two main components, the Open Data Challenge and the Innovation Challenge, the project is well structured and puts a clear focus on data management on the one hand and the identification of innovative solutions on the other hand. Both components have a well-defined general process on how to carry out the challenges, which is helpful guidance for the Project Team. While giving clear guidance on the process, the Project is open to all relevant sectors, such as energy, transport, construction, urban planning, water and waste management. This is wide approach is helpful in nurturing innovative ideas in all sectors and allows to select the best ideas for further development and finally implementation.
- The Project Results Framework is well elaborated and includes well-defined indicators meeting the requirements of GEF to be "SMART". Targets both for MTR and Terminal Evaluation are clearly defined, MTR targets take into account a ramp-up period in the project and are usually between 25% and 40% of the target for the Terminal Evaluation.
- A large number of information and capacity building events were held to prepare for the Open Data and the Innovation Challenge. The challenges were successfully launched in November 2017. 15 applications were submitted for the Open Data Challenge and 111 applications for the Innovation Challenge. This is an excellent result and is a testimonial for the good work of the Project Team. From these applications, 8 municipalities and 34 innovative ideas were selected for further development. An additional call for advanced project was held, from which 4 innovation projects were selected.
- Out of the 38 innovative ideas, the 5 best innovation projects were selected for receiving cofinancing for implementation. Financing is provided through Performance-Based Agreements (PBP), which link the provision of fund to the achievement of individual milestones agreed between the projects and UNDP. This is a good example of adaptive management on the one hand, but also limits the risk of financing provided, as payment is only done if milestones are reached.
- From the 5 innovation projects supported, 3 projects have been in operation at the time of the MTR, which is a good achievement. The other 2 project seem to be on track with implementation.
- There are issues with the additionality of some of the selected innovation projects. In one of the cases, the information provided does not justify accounting the GHG emission reductions as additional. In another case the contribution of UNDP towards the total investment costs is marginal, as a consequence it cannot be argued that the GHG emission reductions generated are counted towards the project target and that the funding provided by the company should be considered as co-financing. However, these projects are excellent innovation projects and play an important role as pilot projects in pushing the development of further innovation projects.
- The MTR proved to be challenging for some indicators. The purpose of innovation challenges is to identify and nurture new ideas and approaches. As a consequence, these challenges are very broadly defined. On the other hand, indicators of GEF projects have a very narrow definition, which makes it challenging to exactly measure progress of innovation projects based on these indicators. The project made good progress in identifying and supporting innovative projects. Some of the projects selected are facing challenges in additionality and are not contributing towards additional GHG emission reductions and/or additional co-financing provided. However, it is still important to include those projects in the CSUD project due to their innovation component.
- For some of the selected innovation projects, considerable steps are required to achieve the projected contributions towards specific indicators. In some cases this is a scale-up of production, in other cases the projects still need to be implemented. In the latest PIR, it was assumed that once projects receive support, full benefits are accounted towards project

targets over the life-time of 20 years. A more conservative approach is suggested taking into account the required additional steps in each of the projects to generate full benefits.

- There were good examples of adaptive management in the Project so far. The concept of
 incubators/accelerators was not mentioned in the ProDoc and has only been added in the
 initial phases of the project and was a key component for the good progress the project has
 made, as it allowed project ideas to be further developed with professional support financed by
 the project. To support the development of selected pilot projects, Performance-Based
 Payments (PBPs) were signed with selected organizations. The concept of PBAs was not
 included in the ProDoc, but was added later. The main benefit of PBAs is that payments are
 based on performance and specific milestones are defined to trigger payments. This reduces
 the risk for the Project, as further payments are only made if there is sufficient progress.
- The latest update of the mentor working with the 9 municipalities reported that ideas were grouped, with a focus on energy efficiency and identifying the solar potential on a local level. This is a good approach as participants can learn from each other as they are facing similar challenges.
- The work of the CSUD Project Team has been excellent up to now. They have managed to turn a very broadly defined Project Document into a project with real, measurable results. They have managed to integrated climate change into the topic of innovation, something which has received very positive comments from a number of stakeholders interviewed during the MTR mission. An international CTA (Chief Technical Advisor) was hired to support the project in various topics, this was helpful in increasing the quality of work.
- The Project successfully integrated the private sector into the activities, which is demonstrated by a large number of private sector representatives participating in the various events and workshops and by the majority of Innovation Challenge projects being implemented by private sector. Performance-Based Payments (PBPs) have proven to be an excellent tool of working with private sector and linking financial contributions to the achievement of milestones.
- Stakeholders interviewed during the MTR mission expressed their interest in replicating the approach of the Innovation Challenge. There are advanced discussions with the Embassy of Sweden about financing an additional Innovation Challenge on biodegradable waste. Innovation Challenges are seen as a very interesting approach by the Swedish International Development Cooperation Agency (SIDA) and if implemented successfully the approach could be replicated in other countries. Also the EU Delegation expressed interest in replicating an Innovation Challenge for specific project types. This is an excellent result of the work of the Project Team.
- Co-financing is a key issue in the project. Up to now, the MoEP has only provided 10% of the cash funds committed at CEO endorsement, this is around US\$ 0.5 million compared to the commitment of US\$ 5 million. At this point, the contribution from the MoEP should have been at least 50% of the committed amount. The lack of cash co-financing has led to a financially challenging situation especially in the initial phases of the project, where a smaller number of projects than expected could be supported.
- The detailed analysis of the pilot projects has shown that there serious issues regarding
 additionality for some of the projects in the Innovation Challenge. In one case, the contribution
 from UNDP to the total investment costs is only marginal, which makes it difficult to argue
 additionality. Moreover, the commitment for co-financing from UNDP was given while the
 project was already in the final stages of implementation. In the second case, the project is
 innovative, but there are no GHG emission reductions being generated, as the GHGs are
 being extracted from the process both in the baseline and the project scenario.

While the project has already good ratings now, there is quite some room for improvement. Based on the excellent work of the Project Team up to now and if recommendations made in the following section are implemented, the Project has a good chance to be evaluated as a highly successful project during Terminal Evaluation.

1.6 Recommendations

<u>Recommendation 1 – Increase efforts to secure cash co-financing from MoEP:</u> The cash contribution from the MoEP will be key for achieving the project targets. Immediate action needs to be taken to secure cash co-financing by the MoEP, with the majority of the missing funds to be provided in the coming budget year. The Project is operational for another 2 years, if majority of funds committed but not provided yet (USD 4.5 million) are provided in 2020, additional projects can be co-financed and there will be sufficient time to provide the necessary support during preparation and implementation. A contribution in 2021 will have a much smaller impact, as there might not be sufficient time to implement additional pilots. All available channels (Resident Representative, Project Team) should be used to secure the co-financing, the EU Delegation has expressed its willingness to support UNDP in these efforts.

Project Team and UNDP should put immediate efforts at finalizing discussions with the Embassy of Sweden on financing an additional challenge. If funds are secured in early 2020, this leaves sufficient time for preparation and implementation of the challenge. The EU Delegation hasn't provided co-financing up to now, but is open for discussions. These discussions should be held by the Project Team in early 2020.

Recommendation 2 – Improve definition of term "direct beneficiary": There is a need for further definition of the term "direct beneficiary" used in Indicators 2 and 9, as it is not clear how the term is being used in the project. The definition should be prepared by the Project Team in cooperation with the MRV consultant (support should be sought from the Regional Hub in Istanbul on guidance available from GEF) and should be the basis for the further monitoring of these two indicators. Definition should be finalized in Q1 of 2020 to allow proper monitoring. Due to the various events and activities carried out under the Project, a clear definition of the term "direct beneficiary" is not easy. For workshops, info days and events, where the Project is the organizer or has a main role in organizing and financing the event, all participants should be counted as direct beneficiaries. If the CSUD Team participated – as one of many participants – in a bigger public event, the number of participants should not be accounted towards the target. For the pilot projects financed, there should be a direct connection between the funding and beneficiaries. Examples are the Green Energy Point project, where the project led to contracting 200 small suppliers of wood or the activities of Esotron, where 25 new clients were contracted. These examples should help as guidelines in defining the term "direct beneficiary".

Recommendation 3 – Revise focus on open data work: Experience from the initial work with the municipalities on the Data Challenge has shown that a lot of effort needs to be put into collecting, editing and publishing data. There is a risk that this is only done if there is support through projects such as CSUD, but there is no follow up and as a consequence data collected is not being updated. Focus should be given on automatic collection of data, such as in the example of the swimming pool in Zvezdara, as this reduces the effort of collection to a minimum and also provides real-time data. Regarding data sets, focus should be given on such data, which lead to immediate benefits in the

municipalities, such as fuel consumptions in public buildings. This should encourage and further develop the use of data collected and published. Work on this recommendation will have to be led by the Project Team and should be implemented from January 2020 onwards.

Recommendation 4 – Revise additionality considerations and GHG calculations using the approved GEF methodology: Analysis has shown that there are issues with the additionality of some of the selected innovation projects. The figures provided by the innovation projects during the application process need to be critically reviewed, as these are not prepared by experts and applicants are biased. Expected GHG emission reductions have to be re-calculated based on a review of additionality of each of the projects. Ramp-up periods need to be considered when calculating results over a 20-years lifetime and the likelihood of required capacity extensions taking place needs to be critically reviewed if projects are currently not operating at the expected output. It is advised that external capacity (consultant) is contracted to support the work of the M&E consultant and to assist in clearly defining baseline and additionality on the one hand and to critically reviewing the information provided by the companies on the other hand. The calculations need to follow the approved GEF methodology. Implementation should start in January 2020.

The analysis of the Green Energy Point project clearly showed that co-financing provided by UNDP was much too small to argue that the UNDP funding was essential for project implementation. Additionality considerations shall also include an investigation of the additionality of co-financing provided to secure that financing provided by UNDP plays an essential role in implementation of innovation projects.

Recommendation 5: Focus on replicability and sustainability: Although performance of the Project Team was excellent, certain improvements are still possible. The projects selected so far both in the Open Data Challenge and the Innovation Challenge cover a wide area of various applications, which is excellent for an innovation project. However, in the second half of the project, there should be more effort to secure replicability and sustainability.

When looking through the data published by municipalities under the Open Data Challenge, there seems to be little consistency in the way data is collected and presented. The data sets in the different municipalities range from extensive historic data sets collected with a lot of effort and no continuous update to the automatic transmission of one data set because the equipment installed by the municipality allows that. Whereas it is good to investigate different routes, it would be important in the second phase to improve consistency and replicability, in order to achieve sustainability of selected approaches. Bundling municipalities in the Open Data Challenge is an excellent step in that direction.

Also in the Innovation Challenge replicability and sustainability should be a key focus. Projects such as the SCADA project in the city of Sabac have a high replication potential, as district heating is widespread in Serbia. Projects such as the Green Energy Point project, were supposed to deliver large contributions towards targets, but have issues with additionality in that they highly likely would have happened anyways. When selecting further projects for support, replicability should be a key focus rather than pushing large projects just because they are supposed to have a considerable contribution towards a target.

Recommendation 6 – Setup of M & E system: A proper M&E system needs to be setup to monitor each of the indicators defined in the ProDoc. Main responsibility for that task is with the Project Team, with support from the M&E consultant in the field of GHG emission reductions. Special care has to be given to GHG emission reductions and co-financing, based on the recommendations on additionality. It is understood that an M&E consultant has been hired to contribute to that work and it is advised to

carefully review the outputs of this assignment. Another key component needs to be the monitoring of gender impacts, which has not been included in the monitoring up to now.

Setting up the M&E system has high priority. A proper functioning system is important to monitor project progress and – if necessary – implement corrective actions or adaptive management. Work on the M&E system should be a key focus in Q1 of 2020.

<u>Recommendation 7– Conservative estimation of results</u>: Reporting of the Project Team on results assumes that once innovation projects receive support, full benefits are accounted towards project targets over the life-time of 20 years. Reality shows that a more conservative approach would be helpful to fully understand progress and further support necessary to achieve the expected results. Currently it is neglected that additional steps, such as increase of capacity or sale of products are required to achieve the results. The Project Team in cooperation with the M&E consultant need to follow-up closely the progress of each of the projects to fully understand the implementation level to be achieved during the course of the Project and likely to be achieved after end of the Project.

Recommendation 8 – Performance Based Payments: The Project uses the new approach of Performance Based Payments (PBPs) to support innovation projects in their implementation. In contrast to other supporting mechanisms such as grants, funding is only provided if pre-agreed milestones are reached. Typically, a company receives 3-4 payments under a PBP contract.

It would be helpful to summarize the lessons learnt from this new approach in a short study, which is prepared towards the end of the Project, when work with innovation projects financed through PBPs is finalized. The results and lessons learnt from the CSUD project would help the application of the PBP approach in other projects. Ideally, the Project Team should prepare the short study, as they have the best know-how on that topic.

<u>Recommendation 9 – Possible Project Extension:</u> Taking into account the delay in receiving cash co-financing from the MoEP, a project extension should be considered. As explained in detail in recommendation 1, the lack of cash co-financing is endangering the achievement of the project targets. More time for implementation would help the project in achieving the various indicators. A condition for the extension would be the provision of all (or a majority) of the committed co-financing by the MoEP by Q4 2020 at the latest.

2. INTRODUCTION

2.1 Purpose of the Mid Term Review and Objectives

The "Serbia - Climate Smart Urban Development Challenge (CSUD)" project (PIMS #5551) started in February 2017 and is now in its third year of implementation. The objective of the project is to promote climate-smart urban development. By a challenge prize approach, it seeks to actively engage the civil society, public and business communities to come up with new and innovative ideas on how to contribute to this in practice and to jointly develop, finance and implement these ideas further. Broader and more effective use of new information and communication technologies (ICT) to enable and spearhead innovation and productivity gains, optimization of the resource use (e.g. by improved energy efficiency and resource sharing), reduction of physical mobility needs, more attractive public and non-motorized transport, increased use of renewable energy sources, climate smart waste management (improved recycling schemes and waste to energy) and other measures contributing to climate change mitigation are among the topics to be considered in this context. The project has three major expected outcomes:

- Outcome 1: Improved access to and availability of data by an open data approach for development, management and monitoring of CSUD related performance of Serbian municipalities.
- Outcome 2: New innovative technical and systemic solutions and business models contributing to climate
- Outcome 3: Knowledge management and M&E to facilitate learning, scaling up and replication of project results.

In accordance with UNDP and GEF requirements, the project is required to undertake a Mid-Term Review (MTR) in its third year of implementation. The purpose of the MTR is to assess progress made towards the achievement of the objectives and outcomes as specified in the Project Document, and assess early signs of project success or failure with the goal of identifying the necessary changes to be made to set the project on-track to achieve expected results. The MTR will also review the project's strategy, its risks to sustainability and make recommendations on how to improve the project over the remaining lifetime. The MTR will also provide an assessment and recommendations on whether the project should be extended beyond the end of its originally planned 5 years lifetime and under what conditions the project should be extended.

2.2 Mid Term Review Methodology and Scope

The MTR was based on the following methodological approach:

- Key project documents of the project were reviewed. The documents provided by the UNDP Project Manager for the MTR are listed in chapter **Error! Reference source not found.**.
- Interviews were conducted with UNDP staff and representatives of all key stakeholders involved in the project. The list of stakeholders interviewed can be found in chapter **Error!** Reference source not found.
- Selected stakeholders who successfully submitted project ideas were visited and interviewed.

The MTR respected the following key principles:

• Participative: the MTR involved all relevant project stakeholders in the review activities.

- Constructive: the underlying aim of the MTR is to help project stakeholders to find ways to optimize the project, so project objectives can be achieved.
- Independence and neutrality: the MTR team has no connections with the project and no interests in the project. The MTR sole objective and interest is to report objectively on the project in order to support future optimization;
- Evidence-based: all findings and conclusions are based on clear and balanced evidence collected during the MTR.

The MTR was undertaken in line and accordance with the new Guidelines for Evaluations published in January 2019. In terms of scope, the MTR covers all aspect of the development and implementation of the Project, from the preparation of the PIF up till and including end-August 2019. According to the ToR (see Annex 1), the assessment covers the following four categories of project progress:

- Project Strategy
- Progress Towards Results
- Project Implementation and Adaptive Management
- Sustainability

The categories evaluative questions, indicators, sources of information and methods of review applied in the review can be found in the MTR Evaluative Matrix in chapter **Error! Reference source not found.**

2.3 Structure of the MTR Report

This MTR Report is presented as follows:

- An overview of project preparation and implementation from the commencement of operation in February 2017
- Review of project strategy, progress towards results, project implementation and adaptive management and sustainability
- Conclusions and recommendations on how to increase the performance of the project

3. PROJECT DESCRIPTION AND BACKGROUND CONTEXT

3.1 Project Context

Serbia is not observed as a major emitter of GHGs in the global context, however it belongs to the top 5 GHG emitting countries of the South-Eastern European region with the estimated 44 million tonnes of CO2eq in 2012. The energy supply is dominated by the use of fossil fuels with locally produced coal (lignite) contributing to over 50% of the total primary energy supply, followed by oil products (23%), natural gas (12%), biofuels and waste (7%) and hydro (6%). According to the most recent IEA statistics of 2012, the energy intensity of Serbia exceeds the OECD average by about 4 times, thereby indicating substantial remaining potential to improve also the energy efficiency of the economy.

3.2 **Problems to be addressed by the project**

The Government of Serbia seeks to contribute to climate change mitigation by continuing, among others, the transposition of the EU directives dealing with energy efficiency (EE) and the promotion of renewable energy (RE), which is further complemented by several internationally financed projects offering technical assistance for public awareness raising and training, financing targeted energy efficiency (EE) and renewable energy (RE) investments in selected subsectors such as in schools, supporting the introduction of energy management systems and establishing specific purpose credit lines and other financing mechanisms to support larger scale municipal EE and RE investments.

However, climate change mitigation and related EE, RE and other measures are not yet viewed as a primary area of concern by Serbian municipalities which consider this to be of secondary importance despite the common principal agreement and understanding on the need to develop the cities in both environmentally and economically sustainable way.

To effectively address climate change mitigation, there is a need to identify win-win opportunities addressing the primary concerns of municipalities, while also producing tangible GHG reduction benefits, by applying innovations. Some of the main barriers to introducing climate change at municipal level are as follows:

- Shortage of financial resources
- Lack of credible data to conduct adequate baseline analysis
- Administrative barriers
- Lack of awareness and capacity to consider, develop and implement state of the art technical solutions, new implementation and financing models
- Lack of concrete incentives to explore and crowdsource new and innovative ideas and approaches

Such barriers often lead to short term solutions to solve the most pending problems, but which may not really address the longer term challenges in an economically, socially and environmentally "smartest" way.

3.3 **Project Description and Strategy**

The objective of the project is to promote climate-smart urban development, by seeking to actively engage citizens, Civil Society Organizations (CSOs), public and business communities to come up with new and innovative ideas on how to contribute to this in practice and to jointly develop, finance and implement these ideas further. This includes broader and more effective use of information and communication technologies (ICT), including its integration into existing city management systems to enable and spearhead innovation and productivity gains in city services, optimization of the resource use and reduction of physical mobility needs. Efforts to increase the share of "climate proof" public services by improved energy efficiency and increased use of renewable energy sources, traffic flow optimization and alternative transport modes, including the promotion of carbon-free public and non-motorized transport, building automation systems for lighting, heating, air conditioning and ventilation, waste management (improving recycling schemes and waste to energy) and contributing to climate change mitigation by other means are also to be considered in this context. The challenge is to identify "the best fit" for a specific problem/city/town, and then finance, implement and sustain the solution in a situation, where the capacities and resources of city authorities to do so on their own are extremely limited.

The project is structures under the following two major components:

Component 1. CSUD Open Data Challenge for new ICT tools and platforms for Serbian municipalities for climate-smart management, monitoring and reporting

This component seeks to build up the capacity and assist participating municipalities to mainstream ICT into city management systems and to put in place digital inventories and tools to gather data, monitor actions and also make this information easily accessible by the public. This is further encouraged by launching the first challenge program for the development and establishment of such systems with phased awards, technical and financial backstopping for most innovative and cost-effective technical solutions and for most progressive municipalities to implement them.

Component 2. CSUD challenge program for harnessing innovations for climate-smart urban development and supporting their further development and mainstreaming.

The purpose of this component is to develop and launch a more comprehensive challenge program for climate smart urban development (CSUD), eventually as a part of the new Green Fund planned by the Government, as an innovative mechanism to source solutions for low-carbon activities and to coach and support their further development and testing. This component supports the design, establishment and operation of a challenge program for climate smart urban development. It targets businesses, communities and citizens, seeks to identify solutions by creating partnerships, between those groups and the participating municipalities, whereas the municipalities remain the primary beneficiaries of the activities funded and implemented.

3.4 **Project Implementation Arrangements**

UNDP is the GEF Agency for this project. The project is implemented following UNDP's national implementation modality (NIM with UNDP providing support services). The Implementing Partner for this project is the Ministry of Environmental Protection (MoEP) who is responsible and accountable for managing this project, including the monitoring and evaluation of project interventions, achieving project outcomes, and for the effective use of the project resources.

The MoEP appointed a National Project Director (NPD) and it established CSUD Project Support Unit comprised of representatives of several key MoEP departments. The primary roles of this Support Unit are to secure, manage and facilitate the implementation of the committed MoEP cash and in-kind support to the project, to facilitate the organisation and implementation of the public call for proposals for the CSUD Challenge, make sure that they are implemented in accordance with applicable Government rules and procedures and support the project implementation otherwise.

A Project Implementation Unit (PIU) has been established by UNDP, including a Project Manager (PM), a Senior CSUD Expert (SCE) and a Project Assistant (PA). The Project Manager is responsible for overall project coordination and implementation, consolidation of work plans and project documentation, preparation of quarterly progress reports, reporting to the project supervisory bodies, coordinating work of the PIU and supervising the work of the project experts and project staff.

The Project Board (PB, also called Project Steering Committee) is responsible for making by consensus, management decisions when guidance is required by the Project Manager, including recommendation for UNDP/Implementing Partner approval of project plans and revisions.

3.5 **Project Timing and Milestones**

The project Document was signed on Feb 22, 2017. The Inception Workshop of the Project took place on 18 May 2017. According to the Inception Report, the Open Data Challenge component is set to last until December 2018, encompassing the following phases:

- 1. Application phase (until November 2017)
- 2. Evaluation phase and the best idea awards (March 2018)
- 3. Incubator and testing phase (April 2018)
- 4. Evaluation phase (November 2018) and
- 5. Final awards (December 2018)

The CSUD Innovation Challenge was set to start in October 2017, encompassing the following phases and deadlines:

- 1. Pre-launching (October 2017)
- 2. Ideation (February 2018)
- 3. Conceptualization (December 2018)
- 4. Implementation (2020)
- 5. Monitoring and reporting (2021) and
- 6. Final award challenge (2021)

The total duration of the project is 5 years. The expected date of Terminal Evaluation is November 2021.

3.6 Main Stakeholders

According to the Project Document, the main project stakeholders include:

 Ministry of Environmental Protection as being the main Government counterpart agency of the project is the main Government entity responsible for climate change related issues in general as well as for any sectoral policies and measures affecting the agriculture and forestry sectors

- Ministry of Mining and Energy acting as the lead agency for EE and RE related activities, including energy management systems and it is in charge for climate change mitigation related policy work in the energy sector
- Ministry of Finance (MoF) is responsible for the establishment of any new financial support mechanisms
- Ministry of Education, Science and Technological Development (MoESTD) is managing areas
- dealing with education, research, innovation and intellectual property rights and is also hosting the Serbian Innovation Fund
- Local self governments-municipalities responsible for water supply, heating, gas distribution, public transport waste management, maintenance which can produce large amount of GHG emissions
- The Standing Conference of Towns and Municipalities (SCTM) is a national association of local authorities in Serbia to facilitate discussion and formulation of opinions on common issues and problems and advocate this to the central authorities
- Serbian Chamber of Commerce representing private sector interest
- Donors and IFIs: EUD, UniCredit bank and the Embassy of Sweden are identified in coproject financing modality and also KfW, EBRD, GIZ are mentined in the framework of relevant ongoing or sompleted projects

Other relevant stakeholders in public sector include: the Ministry of Public Administration and Local Self-Government (MoPALSG) and the Directorate for eGovernment working under that, the Ministry of Trade, Tourism and Telecommunications (MoTTT), Serbian Energy Agency (AERS), Serbian Environmental Protection Agency (SEPA) as a part of the MoEP, the Statistical Office of the Republic of Serbia (SORS), State Hydrometeorological Services (SHS), Public Procurement Office (PPO), Institute for Standardization (ISS). The Project Document also identified CSOs relevant for public participation, private sector companies which are eligible to apply for the project and donors and IFIs relevant for coordinating activities. In addition, further project documents indicate partners attracted to the project such as Climate KIC (EIT) and a French Embassy.

The following figure from the Project Document shows the Project Organization Structure.

Figure 1: Project Organization Structure

UNDP - Government of Serbia



4. FINDINGS

4.1 **Project Strategy**

4.1.1 Project Design

The Project has the objective to promote innovation and community engagement for climate smart urban development (CSUD). Rather than defining the detailed technical and other solutions upfront, however, the Project seeks to actively engage citizens, CSOs, public and business communities to come up with new and innovative ideas on how to contribute to this in practice and to jointly develop, finance and implement these ideas further.

The project is structured into two main components:

- Outcome 1, focusing on improved access to and availability of data by an open data approach for development, management and monitoring of CSUD related performance of Serbian municipalities. The core activity in Outcome 1 is the Open Data Challenge.
- Outcome 2, focusing on new innovative technical and systemic solutions and business models contributing to climate smart urban development (CSUD). The core activity in Outcome 2 is the Innovation Challenge.

The third component (Outcome 3) deals with knowledge management and M&E to facilitate learning, scaling up and replication of project results.

Outcome 1 and 2 have various preparatory activities, such as review of current information management systems, consultative meetings, workshops and seminars. The main work on the challenges is followed by public outreach activities to promote replication of successful management information systems, business models and technical solutions.

By defining the two main components, the project is well structured and puts a clear focus on data management on the one hand and the identification of innovative solutions on the other hand. Both components have a well-defined general process on how to carry out the challenges, which is helpful guidance for the Project Team. While giving clear guidance on the process, the Project is open to all relevant sectors, such as energy, transport, construction, urban planning, water and waste management. This is wide approach is helpful in nurturing innovative ideas in all sectors and allows to select the best ideas for further development and finally implementation.

During the initial phases of the Project, modifications were made to the project design, which helped in the implementation of the Project as well as achieving the targets defined in the results framework. The term "Challenge Program", which was used in the ProDoc, was changed to "Innovation Challenge". A Climate Incubator was established to provide a help desk for project applicants and support to the selected projects through technical staff of the Project and mentors of the incubation team. For pilot projects selected for financing the concept of Performance-Based Payments (PBP) was introduced as an adaptive management measure. Under a PBP arrangement, payments to selected partners are based on performance and specific milestones, which then trigger these payments. This reduces the risk for the Project, as further payments are only made if there is adequate progress.

4.1.2 Results Framework

The Project Results Framework is well elaborated and includes well-defined indicators meeting the requirements of GEF to be "SMART" (Specific, Measurable, Achievable, Relevant, Time-bound). Targets both for MTR and Terminal Evaluation are clearly defined. MTR targets take into account that there is a ramp-up period in the project and are usually between 25% and 40% of the end-of-project target. The targets are – where relevant – disaggregated by gender, aiming at not more than 55% from the same gender.

There is a need for further definition of the term "direct beneficiary" used in Indicators 2 and 9, as it is not clear how the term is being used in the Project. The definition should be prepared in cooperation with the M&E consultant and should be the basis for the further monitoring of these two indicators. Due to the various events and activities carried out under the Project, a clear definition of the term "direct beneficiary" is not easy. For workshops, info days and events, where the Project is the organizer or has a main role in organizing and financing the event, all participants should be counted as direct beneficiaries. If the CSUD Team participated – as one of many participants – in a bigger public event, the number of participants should not be accounted towards the target. For the pilot projects financed, there should be a direct connection between the funding and beneficiaries. Examples are the Green Energy Point project, where the project led to contracting 200 small suppliers of wood or the activities of Esotron, where 25 new clients were contracted. These examples should help as guidelines in defining the term "direct beneficiary".

All other indicators are clearly defined and no modification is required.

4.2 **Progress Towards Results**

4.2.1 Progress towards Outcomes Analysis

Outcome 1: Improved access to and availability of data by an open data approach for development, management and monitoring of CSUD related performance of Serbian municipalities

Outcome 1 consists in total of 9 different outputs (titles of the outcomes are shorted, full titles can be found in the Project Document):

- Outcome 1.1: Review of current monitoring and information management systems
- Outcome 1.2: Articles, specific open data workshops and seminars, presentations at other open events, etc.

To inform interested stakeholders about the opportunities under the CSUD project, a considerable number of workshops and seminar were organized and the Project Team participated in various public events. At the majority of these events the entire CSUD Project and both challenges (Open Data Challenge and Innovation Challenge) were presented. The most important events were:

- 5 preparatory workshops in Belgrade, Nis, Novi Sad, Krusevac and Kragujevac, in total 286 participants
- 4 info days (in Subotica and three times in Belgrade), in total 148 participants
- Gender and Climate Change, 6 outreach events, total of 241 participants

- Climathons in Sabac and Kragujevac, total of 50 participants
- International mid-term event on 11 October 2019 in Belgrade, 140 participants
- Various other public events, such as EcoExpo, Eco Fair, Climate Diplomacy Week, Belgrade Security Forum

The Open Data Challenge was announced in November 2017 with a deadline for applications in February 2018. The call was accompanied by an application guide providing details on the background of the challenge, process, timelines and evaluation criteria/scoring. All cities and municipalities in Serbia with more than 20,000 inhabitants were invited to send their applications as well as civil society organizations, registered local community groups, private companies and research organizations registered in Serbia who apply as part of consortia with Serbian cities and municipalities. 15 municipalities handed in their proposals, out of which the following 8 project were selected:

- Zvezdara Municipality: An innovative solution for the online monitoring and analysis of electricity consumption in public buildings
- City of Šabac: Project for the collection of data on GHG emissions from domestic heaing in the city of Šabac
- City of Sremska Mitrovica: Animal water polluters inventory in the territory of the city of Sremska Mitrovica
- City of Kruševac: Energy and financial calculator "The city's new face" The climate smart city of Kruševac
- Municipality of Krupanj: A calculator for the future!
- City of Kraljevo: Keep in touch
- City of Kragujevac: Kragujevac, open data in combating climate change
- Ćuprija Municipality: The creation of a repository of energy efficient materials, public and residential buildings.

The City of Nis showed strong interest in participating in the project at a later stage, although they had not participatee in the Open Data Challenge. Their participation was approved and the City of Nis officially joined the Incubator in September 2019.

Between June and December 2018, the projects selected received support through the Climate Incubator to turn their ideas into concrete projects that will contribute to data collection, analyses and management, opening data to the broader community and involving citizens in the work of the local government. Implementation of the data management systems started in early 2019.

CSUD performance reports were presented by 2 municipalities, Zvezdara and Kragujevac. The performance reports give a good overview on progress with implementation and achieved results.

At the moment, the on-line information management system is operating for three municipalities, these are:

- Kragujevac (<u>https://www.data.kragujevac.rs/</u>): website shows historic data (2015-2018) on energy consumption in buildings and fuel consumption of vehicles.
- Zvezdara (<u>https://www.solarweb.com/Home/GuestLogOn?pvSystemid=268a767f-01e5-46df-aaf7-ce7704d42676</u>): website shows live data on the fuel consumption of the public swimming pool.
- Nis has published a large set of data related to climate change (waste management number and location of trash bins, transportation routes, public lightning, agricultural land, public

transportation, etc.) data was published on: https://data.gov.rs/sr/datasets/?organization=5a93d2d0cbe3c80f19373cc8&page=1

The three municipalities presenting the first data are a good start. Kragujevac has published a large set of data covered in the years 2015-2018. With more than US\$4 million energy costs per year, monitoring of energy consumption, identification of potential improvements and preparation of investment programs are a key focus for the municipality. The municipality has an own energy unit, directly reporting to the mayor. The city of Nis published 34 sets with more than 100 subsets from all city departments. The city described the technical support of UNDP in preparing and publishing the data as very helpful. In the case of Zvezdara, data on the electricity consumption of the local swimming pool is collected and published in real-time via the website of a supplier of electronic equipment.

When comparing the current status of these projects with the submissions made in the Open Data Challenge, it can be seen that there is still some way to go to achieve the targets. In the case of Zvezdara, the plan is to include general data about the public buildings, their location, gross surface area, age of the building and the heating fuel used. This is not in place currently. In the case of Kragujevac, a lot of data has been published and it needs to be further investigated, how a sustainable data management system can be established. As the data set is huge, there is a considerable risk that continuous updates are not happening or at least not in all data sets provided in the first round.

These first examples and the interviews with municipalities raise some challenges:

- Collecting, editing and publishing data takes a considerable amount of time. There is a risk that this is only done if there is support through projects such as CSUD. Follow-up activities and further updates of data are likely to not happen, which limits the use of the data collected and published.
- Most of the data published has been collected and entered into data bases manually. This brings issues in terms of accuracy, completeness, reliability, relevance and whether data are up-to-date. There was a clear response from municipalities that automatic data collection is the preferred option, as this reduces the effort of collection to a minimum and also provides real-time data. This should be pushed in further work with the municipalities.
- It was also voiced in interviews that more communication is necessary to understand challenges and further needs of municipalities. There are issues on the sustainability of the data access as work and financial resources are limited to secure a continuous data entry and management of the data bases. It is suggested that the Project Team reaches out to all municipalities to identify these further needs and discusses potential support to be provided by the Project.
- The latest update of the mentor working with the 9 municipalities reported that ideas were grouped, with a focus on energy efficiency and identifying the solar potential on a local level. This is a good approach as participants can learn from each other as they are facing similar challenges.

Outcome 2: New innovative technical and systemic solutions and business models contributing to climate smart urban development (CSUD) identified, tested and replicated.

Outcome 2 consists in total of 9 different outputs (titles of the outcomes are shorted, full titles can be found in the Project Document):

• Output 2.1: An updated baseline and scoping study and consultative meetings, workshop

- Output 2.2: Finalized design and implementation plan of the CSUD Challenge Program
- Output 2.3: Established CSUD coaching team
- Output 2.4: Launching of the CSUD Challenge Program
- Output 2.5: Selection of the projects / project idea
- Output 2.6: Selection of the winner or 2-3 finalists
- Output 2.7: The final awards granted
- Output 2.8: Public outreach
- Output 2.9: As required, draft legal and regulatory amendments presented to public authorities

The Innovation Challenge was announced in November 2017 with a deadline for applications in January 2018. The call was accompanied by an application guide providing details on the background of the challenge, process, timelines and evaluation criteria/scoring. The call was open for various types of applicants, including local self-governments, public utilities, CSOs, research institutions and individuals. Between March and May 2018, an additional call for advanced projects was initiated to secure projects which are in further stages of development.

A total of 111 applications were submitted in the call, with the majority of applications from individuals, CSOs, local self-governments, research institutions and companies. Applications were received from all parts of Serbia. After technical assessment and evaluation by independent experts, 34 innovative ideas were selected, all aiming to reduce the GHG emissions in the areas of energy, transport, waste management, agriculture, forestry. 25 applicants have received innovation award, additional 9 ideas were selected due to their potential, these were given the opportunity to receive support for further development of their concepts through the project incubator. The call for advanced projects results in 4 additional projects, bringing the total number of selected projects to 38.

For these projects, the Climate Incubator was introduced as a technical assistance facility to support further development and elaboration of innovative climate smart ideas into more mature projects and solutions ready for implementation. The incubator also provided support in terms of project analytics, studies, prototype development, testing of the prototypes, establishing partnerships and identification of funding sources. Throughout 2018, all 38 project ideas in the Climate Incubator have received mentorship and coaching support and eventually their progress has been evaluated by mentors, the Ministry and UNDP. In November 2018 a final scoring table was elaborated to rank projects based on their performance and progress throughout incubation/acceleration process. Based on this ranking, the 5 best innovation projects were selected for receiving co-financing for implementation. Financing is provided through Performance-Based Agreements, which link the provision of fund to the achievement of individual milestones agreed between the projects and UNDP. Typically, the projects receive an advance payment upon signature and 2-3 payments based on achievement of indicators.

With respect to the use of the innovation challenge mechanism in the project, the Project Document doesn't contain the required justification for the use of this mechanism, as it is defined in the POPP guidance on the use of such mechanisms. Subsequently, as such procedures became operational during the course of project implementation, the Project Team has prepared a Note to File on 27 June 2019, to justify the use of this new mechanism. The Note to File "Adaptive Management on the UNDP GEF Climate Smart Urban Development Project - Explaining the Use of Innovation Challenge Mechanism to Support Climate Smart Urban Development (CSUD)" was approved and recorded into PIMS.

The five selected projects and companies are:

- Sanicula Ltd. Innovative approach to production of pellets from medicinal herbs
- Esotron Ltd. Reduce garbage for collective health and happiness
- Jugo-Impex e.e.r. Polyurethane foams end of waste
- Green Energy Point Ltd. New Approach in Production of Heat and Electricity from Woody Biomass
- Public Utility Company for Production and Distribution of Thermal Energy, Šabac -Establishing SCADA system for Supervision and Management of Heat Distribution Substations at district Heating System of the City of Šabac

These 5 projects are the basis for the contribution towards various indicators defined in the Project Results Framework. As a consequence, the performance of the projects is key to the achievement of the targets defined for the mid-term level and a detailed analysis of each of the projects can be found in the following paragraphs.

Sanicula Ltd.

Project (00094603/02/19) "Innovative approach to production of pellets from medicinal herbs" proposed by Sanicula Ltd. Sanicula Ltd. is a privately owned company with core activities in the production of medicinal herbs and essential oils The project is based on the production of essential oils from medicinal herbs and is using the organic waste of the production process for the production of pellets. The pellets will be primarily used for providing heat for the production process, excess production of pellets will be sold. The company has received a grant under the PBP scheme of US\$80,025, payable in 3 tranches. Funding from UNDP supported the installation of a drying and pelleting line with a capacity of 600 kg/hour.

At the time of the MTR, the pelleting line has been installed and put into operation. The company is expecting a production of around 1,200 tons of pellets for 2019 and 2020. At the moment, the pelleting line is running every second day, maximum 8 hours operation time on a day, as there is lack of continuous supply of raw material. With that operation scheme, the maximum output is 600 tons per year (50 weeks @ 2.5 days @ 8 hours/day @ 600 kg/hour). Taking into account that the pelleting line was only put in operation mid-2019, the expected production of 1,200 tons for 2019/2020 is on the high side.

Regarding the GHG emission reductions to be generated, different figures are mentioned in various documents. The 2019 PIR talks about an emission reduction of 15,000 tCO2 per year, the application of the company mentions a reduction of 80,295 tCO2 over a period of 20 years, so 4,015 tCO2 per year. A new calculation prepared by the M&E consultant calculates current emissions at 692 tons of CO2 per year. GHG emissions of the project are estimated at 468 tCO2 per year at full capacity. The M&E consultant assumes that at full production capacity of 4,600 tons of pellets per year, the total GHG emission reduction would reach around 7,400 tCO2/a. This calculation needs to be critically reviewed for the following reasons:

- Whereas the GHG calculation assumes an annual pellet production of 4,600 tons, the owners projected a production of only 1,800 tons in 2021, 2,300 tons in 2022 and 3,000 tons in 2023. Taking into account the lack of raw material at the moment reported by the company and the need to switch to 3-shift operation of the pelleting line (which is currently operating in a 1-shift system every second day), a production volume of 4,600 tons seems highly unlikely.
- Achieving the production targets shared by the company would require a massive change in the current system of operating the pelleting line. If the pelleting line is operating 8 hours every work day (doubling current output), output would be 1,200 tons per year. To achieve 1,800

tons, the plant either needs to operate on the weekend as well or a second shift needs to be added.

- The company currently uses gas oil, coal and firewood as energy sources. From the information provided, it is not fully clear whether pellets will only replace fossil fuels in the first stage or whether there is also replacement of firewood, which would not lead to GHG emission reductions. This needs to be further investigated.
- From the documentation provided, it is not clear which investment is necessary to operate the entire plant on pellets and what the likelihood is that this investment is being carried out.

Based on these considerations, the likely GHG emission reduction per year is around 600 tCO2/a. This is calculated by taking the baseline emissions of 692 tCO2 and deducting emissions from the operation of the pelleting line at current capacity (around 80 tCO2). This would give a total emission reduction of around 12,000 tCO2 over a 20-years period. However, further work during the course of the project is necessary to clearly identify baseline and project emissions on the one hand and to fully understand the future capacity and production volumes on the other hand. Both steps are necessary to get a good understanding on the GHG emission reductions to be generated over a 20-years period.

Esotron Ltd.

Project (00094603/03/19), "Reduce garbage for collective health and happiness" proposed by the Esotron Ltd. Esotron's core business is the collection and treatment of used cooking oil. The project of Esotron aims at using, expanding and improving the existing collection network of waste edible oils with the collection of organic waste from facilities that produce more than 50 meals a day, as prescribed by law. The organic waste will be collected and transformed into substrate (called "Biobooster" by the company), which can be used as input material for biogas projects in Serbia. Over the last few years, a number of biogas projects started operation in Serbia, the majority of them supported through the GEF-UNDP project "Reducing Barriers to Accelerate the Development of Biomass Markets in Serbia". These projects as well as further biogas plants to be built are potential clients for Esotron. The funding from UNDP is partly used for investments into machinery (e.g. purchasing vehicles for collection), partly into the process of securing new clients. The plan is to collect 720 tons of food waste in the first two years and then increase to 3,600 tons per year. In the application documents annual GHG emission reductions of 2,762 tCO2 per year were expected, generating a total of 55,240 tCO2 over the lifetime of the project.

The implementation of the project is as per the timeline agreed under the PBP agreement with UNDP. A vehicle has been purchased and around 25 new clients have been contracted. Contracting clients proved to be more challenging than expected, as the willingness to pay for collecting organic waste is limited. Esotron has adapted to that situation by reducing the fees to a level where only costs are covered and no profit is made.

At the moment, around 3-5 tons per month are collected and Esotron is focusing on the quality of the substrate being produced. The annual capacity at the moment is between 50-60 tons. Esotron wants to go into full service in 2020 and by 2021 achieve a volume of 1,000 tons per year. By the end of 2021 it will become clear whether the pace of increase can be continued and the target capacity of 3,600 tons per year (300 tons per month) can be achieved. In any case, considerable investments are necessary for a capacity of 3,600 tons (up to EUR 1 million).

Based on the information currently available, it is quite uncertain whether Esotron will be able to reach the target level of 3,600 tons per annum in the foreseeable future. This would require two major steps: an initial step from testing phase to continuous production (with around 1,000 tons per year), which

can be reached without major investments. The second step to 3,600 tons would require further rollout as well as serious investments.

As a result, the expected GHG emission reduction of 55,248 tCO2 is at the moment unlikely for the following reasons:

- A considerable increase in two major steps is necessary to get from currently 50-60 tons per annum to 3,600 tons per annum.
- Further investments are necessary to increase from 1,000 to 3,600 tons per annum.
- The calculation of GHG emission reductions over a project lifetime of 20 years does not take into account a ramp-up period, but is based on 20 years of full operation. This is too optimistic.

Based on current information, is seems feasible that the production in 2020 can reach a few hundred tons and is then increased to 1,000 tons in 2021, leading to annual GHG emission reductions of 767 t per year. The production level should be monitored during the remaining lifetime of the Project and evaluated during the Terminal Evaluation. During the Terminal Evaluation it should be re-investigated whether an increase above 1,000 tons per annum is likely. Assuming a level of 300 tons in 2020 and 1,000 tons for the following years, the total GHG emission reductions would reach around 14,800 tCO2.

The following recommendations are made:

- Closely monitor production volumes and related GHG emission reductions between 2019 and 2021
- Re-calculate likely GHG emission reductions after end of the CSUD project in preparation for the Terminal Evaluation and have the calculations checked during the Terminal Evaluation.

Jugo-Impex e.e.r.

Project (00094603/03/19) "Polyurethane foams - end of waste" proposed by the company "Jugo-Impex e.e.r.". Jugo-Impex' core business is the collection and separation of electronic waste. The project of Jugo-Impex refers to the application of circular economy principles in the treatment of electronic waste (cooling devices). The polyurethane foam in fridges and freezers, which is left after the Freon is separated, will be converted into a new product, an absorbent. The absorbent will be able to absorb oily liquids such as gasoline and petrol in case of their uncontrolled leaking into the environment, hence preventing unintentional burning of fossil fuel and related GHG emissions. Preliminary analyses in the application documents for the PBP indicated that in the first phase the separation of approximately 10 t of Freon (a CFC – Chlorofluorocarbon with high greenhouse warming potential) will lead to 16,525 t of CO2 eq emissions reduction per year.

The project is currently in preparation phase, with drawings for the installation being under preparation. The order for the machine (an industrial waste pelletizer) producing the absorbent is placed, machine will arrive towards end of 2019. Start of operation is planned for February 2020. The support from UNDP will be mainly used for helping in marketing the product, the work of the incubator was seen as very helpful in realizing the best setup for the production facility. It is the first time a new product is being developed in the company. The consultant hired by company for guiding the preparation and implementation of the project received training from the incubator, which was very useful for company.

The planned production is the recycling of 500 tons of foam per annum. The capacity of the machine to be installed is 500 kg/hour, with the current 2 shifts the annual production capacity is 2,500 tons per year. The actual license Jugo-Impex has is for 3,000 tons per year.

The PU foam, which will be used for the absorbent, is currently being burnt or sent to landfill sites when cooling devices are dismantled. In the project, after being used as an absorbent, the material can be burnt as well or deposited. Currently clients are using sand or chemicals as absorbents, these need to be deposited on landfill sites.

During the site visit it turned out that the CFC is being taken out of the cooling units in any case. This is done in a first stage when a mixture of oil and CFC is removed from the cooling unit and refrigeration system. In a second stage, CFC is extracted in the shredder during the granulation of the PU foam. The only change the project is implementing is the re-use of the PU foam as an absorbent instead of disposal (either burning or landfilling), but there is no additional quantity of CFCs being extracted. Whereas the project is a very good innovation project and applies principles of circular economy, there is no additional GHG emission reduction, which can be attributed to the project.

The lack of additionality of GHG emission reductions is already evident from the project application, which was the basis for the PBP. The application clearly describes that no additional CFC is being extracted and that only the PU foam is being re-used. The application then makes a wrong conclusion on the GHG emission reductions, as additionality is not considered.

The following recommendations are made:

- Revisit GHG emission reduction calculations by the M&E Consultant, aiming at clearly defining baseline, project and additionality.
- Closely monitor production volumes between 2019 and 2021
- Re-evaluate additionality in preparation for the Terminal Evaluation and have the results checked during the Terminal Evaluation.

Green Energy Point Ltd.

Project (00094603/05/19), "New Approach in Production of Heat and Electricity from Woody Biomass" proposed by Green Energy Point L.t.d.. Green Energy Point is a project company with the main focus on operating the heat and power production plant in Boljevac. The project aimed at introducing a new approach and implementation of innovative technology in the production of combined heat and power by combustion of wood biomass. Heat energy is used in the process of pellet production, with parallel electricity generation that is sold to the national electricity supplier EPS at affordable prices. The project also introduces a new business model of cooperation with partners, associations, suppliers of raw materials, local agricultural holdings and local self-government. The plant uses biomass near the collection site, which will result in lower transportation costs and reduction of GHG emissions compared to a collection from distant parts of Serbia. A part of wood biomass will be obtained by extracting waste wood that endangers the work of Hydro-Power Plant "Djerdap" on the Danube. The initial GHG emissions reduction was calculated on the basis of the construction of the woody biomass powered facility of total output per year of 19,764 MWh of electricity and 57,739 MWh of heat energy. In the application for the PBP, the direct GHG emission reduction was estimated at 25,000 tCO2 per year, excluding indirect reduction of emissions.

The cogeneration plant is the first of its kind in Serbia and has an installed capacity of 2.38 MW electric and 8.3 MW heat. Work on the plant started around 2 years ago, construction started in spring 2018. Construction work was finalised in spring 2019, trial production was in May 2019 and licenses were given in July 2019. At the time of the site visit (September 2019), the plant was in full operation. The project also included the installation of new dryers with a capacity of 10 tons/hour, giving an annual capacity of 85,000 tons of pellets.

Apart from the positive impacts on electricity generation and providing heat for drying of wood, the support through UNDP (both cash funding provided as well as support in the incubator) was responsible for a number of additional benefits. The project achieved positive social impacts through inclusion of the local community in all aspects of the project and economic empowerment of vulnerable groups through employment and collaboration. The project includes training components for suppliers of wood and households as well as signing agreements with suppliers of wood. The company is investigating additional opportunities, such as the installation of 2 solar power plants. The cash funding provided was used for the purchase of the electro filter of the latest generation for the CHP plant that is removing harmful gases and particles from the energy generation facility, which further improves the environmental performances of the RE production.

Total investment costs of the project are around US\$ 11 million for the CPH including the dryers. The CHP alone has (as per the application for the PBP) investment costs of US\$ 9.2 million. Financing consists of US\$ 6.5 million of bank loans and US\$ 2.5 million of own capital. The contribution of UNDP is US\$ 170,000.

Both the timeline of project implementation as well as the total investment costs are a clear indication that the project is not additional and would have happened anyway without UNDP funding. Green Energy Point came first in contact with the CSUD project when the construction of the CHP unit had already begun. Construction of the plant started in spring 2018, the innovation call for mature projects was open between March and May 2018. The PBP contract was signed in April 2019, only one month before the trial operation of the CHP unit. Therefore, the project is clearly not additional, as at the time of financial closure of the project (before start of construction in spring 2018) there was no firm commitment by the CSUD project to support Green Energy Point. Moreover, the funding provided by UNDP (US\$ 170,000) is only 1.8% of the total investment costs, a share which is much too small to argue that the UNDP funding was essential for project implementation.

The project is an important milestone in Serbia's renewable energy sector, as it is the first biomass co-generation project in Serbia. It has been implemented within a relatively short period of time and can serve as an example for other investments. The support from UNDP was important to increase the social impacts of the investment, which can serve as a case study for other projects in Serbia. However, due to lack of additionality, the GHG emission reductions generated by the project should not be accounted towards the targets of the CSUD project. Also, the co-financing provided by the company cannot be included in the indicator "climate finance being accessed".

Public Utility Company for Production and Distribution of Thermal Energy, Šabac

Project (00094603/01/19) "Establishing SCADA system for Supervision and Management of Heat Distribution Substations at district Heating System of the City of Šabac" proposed by the Public Utility Company for Production and Distribution of Thermal Energy, Šabac. The public utility is operating the district heating system in the City of Sabac. The proposed project promotes an innovative solution to increase the energy efficiency of the municipal district heating system (DH) by introducing a SCADA (Supervisory Control and Data Acquisition) system. The SCADA system will help the company operating the DH system by using real time data to quickly and effectively react to non-standard system behavior. The project also creates an opportunity to provide transparent and real-time data on heat consumption available to all end-users, based on which consumers can plan savings of energy and heating costs. The DH system parameters achieved will be publicly available at the city's web page, displaying articles, charts and trends in energy consumption. The expected reduction of

heat consumption is at least 10% (6,200 MWh/a) which will lead to the estimated reduction of 1,240 tCO2 per year. Over the 20 years lifetime of the project, GHG emission reductions will reach 25,000 tCO2. The district heating company is currently in the process of procuring the SCADA system. The system will be implemented until October/November 2020.

The expected energy savings and related emission reductions seem to be realistic based on information provided during the MTR mission. However, as the project is not implemented yet, these are only projections.

The following recommendations are made:

- Closely monitor the implementation of the SCADA system and heat consumption before and after implementation of the SCADA system
- Re-calculate expected emission reductions in preparation for the Terminal Evaluation and have calculations checked during the Terminal Evaluation.

The following table summarizes the expected GHG emission reductions at time of application for the PBP (both per year and over project lifetime) as well as the expected GHG emission reductions at the MTR.

					,		
Project	Expected G	HG emission	Expected GI	IG emission	Financing (in US\$)		
	reductions at application		reduction	s at MTR			
	per year	project	per year	project	GEF	Co-financing	
		lifetime		lifetime	financing	private sector	
					(PBP)		
Sanicula Ltd.	4,015 t	80,295 t	600 t	12,000 t	80,025	120,036	
Esotron Ltd.	2,762 t	55,240 t	767 t	14,800 t	43,000	44,000	
Jugo-Impex	16,525 t	330,500 t	0 t	0 t	100,000	254,080	
Green Energy Point	25,000 t	500,000 t	0 t	0 t	170,000	9,006,920 ²	
DH Sabac	1,240 t	25,000 t	1,240 t	25,000 t	84,574	126,862	
Total	49,542 t	991,035 t	2,607 t	51,800 t	477,599	9,551,898	

Table 2: Expected GHG emission reductions at application and at MTR, financing

Outcome 3: Knowledge management and M&E to facilitate learning, scaling up and replication of project results.

Outcome 3 consists in total of 8 different outputs (titles of the outcomes are shorted, full titles can be found in the Project Document):

- Output 3.1: Inception Workshop and Inception Report
- Output 3.2: CSUD knowledge management portal established
- Output 3.3: Annual audit and PIR reports
- Output 3.4: International mid-term CSUD knowledge management workshop/seminar
- Output 3.5: Project mid-term evaluation and management response
- Output 3.6: End of project lessons learnt report
- Output 3.7: International end of project workshop/ seminar

² This is the total co-financing claimed by the project, consisting of US\$ 2,497,000 in cash and US\$ 6,509,920 loan from UniCredit Bank. As explained in this section in detail, the project is not additional, therefore co-financing of Green Energy Point is not considered towards the targets.

• Output 3.8: Project terminal evaluation

Outputs 3.1-3.5 were planned to be delivered until the mid-term review of the Project and are therefore covered by this MTR Report. The project started on-time and the Inception Workshop was held in May 2017 less than 3 months after signature of the project document, the Inception Report was presented in June 2017. The CSUD knowledge management portal is established (<u>http://inovacije.klimatskepromene.rs/</u>) and gives a good overview on the innovation and the open data challenge, and provides various documents and multimedia content on the innovations. The website also includes an innovation platform, which introduces 12 mature projects. Some improvements are suggested:

- Under "Innovation Platform" in the sections on "Projects under development" and "Mentorship", there is just placeholder text. This should be replaced with relevant information.
- The website should be more actively presented as a platform to bring together innovators and potential investors, financiers, partners, etc. Up-to-date information on new innovation ideas should be presented and updated regularly. This should not only be done in the innovation section, but also in news (e.g. by creating a section "innovation idea of the month").
- Relevant news should be published on the website and should be shared by email with all stakeholders, making reference to new information being published on the website.
- The "Contact" section is very impersonal, with no information about the Project Team or an address. This should be improved.

The PIR reports were submitted on-time and give good summaries on project progress. In section C of the PIR on development progress more diligence would be helpful to make sure the report on the cumulative progress is in line with the indicators. An example is indicator 2, which set a MTR target for direct project beneficiaries of "5,000 people, from whom not more than 55% for the same gender". The latest PIR just reported that "more than 5,000 beneficiaries are benefiting out of the CSUD project results", without giving any detail or background where this figure is derived from. Also, information provided on gender does not allow evaluation, whether the targets are met.

An international event was held in Belgrade on 11 October 2019 as the international mid-term CSUD knowledge management workshop/seminar. The event was held under the title "Citizens Build Smart Cities" and attracted more than 140 national and international participants. Best practices and solutions for development of climate-smart cities across Europe were presented and discussed at the event. Experts from Italy, Bulgaria, Finland, Northern Macedonia and via live streaming from London, Maribor, Milan, Helsinki, Madrid have presented concrete measures to fight climate change and to develop sustainable cities. Throughout the panels, participants had the opportunity to hear experts' experiences on innovative approaches, technical solutions, new technologies, open data, circular economy and development strategies that will contribute to the creation of climate-smart and sustainable cities and municipalities. Representatives of public and private companies presented the realized infrastructure solutions for the development of smart cities.

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Table 3: Progress towards Results Matrix

PROJECT GOAL: To reduce GHG emissions associated with thermal energy use in municipal service sector in Georgia								
Project Strategy	Indicator ³	Baseline Level ⁴	Level in 1 st PIR (self- reported)	Midterm Target⁵	End-of-project Target	Midterm Level & Assessment ⁶	Achieveme nt Rating ⁷	Justification for Rating
Project Objective: Promote innovation and community engagement for climate smart urban development (CSUD)	Mandatory IRRF indicator 1: 1.4.1 a: Extent to which climate finance is being accessed	NA		At least US\$ 3.5 million complementar y financing leveraged to support climate smart urban development in Serbia	At least US\$ 10 million complementary financing leveraged to support climate smart urban development in Serbia	Complementary financing is at US\$ 1.64 million, consisting of US\$ 0.56 million co- financing in cash and US\$ 0.23 million in-kind from existing partners, as well as US\$ 0.85 million of additional cash co-financing	MS	Complementary financing is clearly behind target and there is an imminent risk that the end-of- project target is not achieved. The biggest gap comes is in cash co- financing from the MoEP, where only 10% of the committed co-financing were provided up to now. This is seriously limiting the ability of the Project to co-finance further innovation ideas and thereby endangering the achievement of the end- of-project targets. On the positive side, the Project secured cash co- financing from new partners of US\$ 0.85 million, with the majority of funding coming from private sector, which is an excellent achievement.

³ Populate with data from the Logframe and scorecards
⁴ Populate with data from the Project Document
⁵ If available

⁶ Colour code this column only

⁷ Use the 6 point Progress Towards Results Rating Scale: HS, S, MS, MU, U, HU
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Mandatory	NA	5,000 people,	20,000 people,	Up to now, a total of	The project had a
indicator 2:		from whom	from	around 1,350 persons	remarkable outreach
Number of		not more than	whom not more	participated in various	during its first 2 years
direct projec	t	55% for the	than 55%	events, out of which	and made a large
beneficiaries		same gender	for the same	286 in preparatory	number of quality
with			gender	workshops, 148 in info	contacts with
gender			U U	days, 140 in the	stakeholders. Although
disaggregate	9			international mid-term	only a third of the target
d data.				event and 783 in other	was achieved, this is a
				events. No	good result. Rating is
				disaggregation by	only MS as there is lack
				gender was available.	of gender disaggregation
				The Project also	in the figures provided
				participated in a	and there is no proper
				number of bigger	monitoring system
				events with thousands	keeping track of the
				of participants e q	progress towards target
				EcoEair, but it's difficult	progress towards target.
				to argue that these are	
				direct project	
				beneficiarian From the	
				penelicianes. From the	
				pilot projects, Green	
				Energy Point reported	
				contracts with around	
				200 small suppliers of	
				wood, Esotron around	
				25 new clients. This	
				gives a total of around	
				1,600 direct	
				beneficiaries.	

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	Indicator 3: Direct incremental GHG emission reduction impact of the project	0		20 ktons of CO ₂ calculated over 20 years lifetime of the investment	100 ktons of CO ₂ calculated over 20 years lifetime of the investment	Projects financed up to now are expected to generate 51.8 ktons of CO2 over 20 years lifetime.		Out of 5 innovation projects financed, 2 projects cannot be accounted towards GHG emission reductions due to issues with additionality. 2 projects are operational, but only at low capacity, the third project is under implementation. Emission reductions are calculated based on expected outputs. Rating for indicator 3 is satisfactory as the project is overachieving the mid- term target, however, further investigation of additionality and monitoring of actual implementation is necessary to confirm these figures for the Terminal Evaluation.
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Component/Outc	Indicator 4:	0	2	5	3 municipalities have	MS	Although the quantitative
ome 1:	Number of	-		-	on-line information		target of 2 municipalities
Improved access to	municipalitie				management systems		is reached, the
and	s having an				operating, these are		information management
availability of data	integrated				Kragujevac		systems are only
by an	cross-				(https://www.data.kragu		regularly updated in
open data	sectoral on-				jevac.rs/), Zvezdara		Zvezdara. Nis and
approach for	line				(https://www.solarweb.c		Kragujevac only include
development,	information				om/Home/GuestLogOn		historic data (2015-2018).
management and	management				?pvSystemid=268a767f		It is important in the
monitoring of	system with				-01e5-46df-aaf7-		second phase of the
CSUD related	open				<u>ce7704d42676</u>) and		Project to improve
performance of	public				Nis		consistency and
Serbian	access				(https://data.gov.rs/sr/d		replicability, in order to
municipalities.	covering at				atasets/?organization=		achieve sustainability of
	least the				5a93d2d0cbe3c80f193		selected data
	energy,				<u>73cc8&page=1</u> .		management
	transport				Kragujevac has historic		approaches.
	and waste				data on energy		
	sectors with				consumption in		
	regularly				buildings and fuel		
	updated				consumption of		
	monitoring				vehicles online,		
	data and				Zvezdara publishes live		
	clearly				data on the fuel		
	defined				consumption in the		
	sector				public swimming pool.		
	specific				Nis has published a		
	performance				number of indicators for		
	targets,				energy, transport and		
	which are				waste management		
	disaggregate						
	d, to						
	the extent						
	possible, by						
	gender.						

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	-				
Indicator 5:	0	at least 3	at least 5	The three municipalities	The target is reached for
Number of		indicators for	indicators for	that have been piloting	energy, transport and
municipal		each	each subsector	opening of the data in	waste management,
CSUD		subsector	(energy,	the domains of energy,	where more than 3
indicators,		(energy,	transport, waste)	transport and waste	indicators are published
for which		transport,		management, have	in at least one
data is		waste)		made their data publicly	municipality.
publicly				available on websites,	
available on				these are these are	
line				Kragujevac	
				(https://www.data.kragu	
				jevac.rs/), Zvezdara	
				(https://www.solarweb.c	
				om/Home/GuestLogOn	
				?pvSystemid=268a767f	
				-01e5-46df-aaf7-	
				ce7704d42676) and	
				Nis	
				(https://data.gov.rs/sr/d	
				atasets/?organization=	
				5a93d2d0cbe3c80f193	
				73cc8&page=1).	
				Kraquievac publishes 2	
				indicators (energy	
				consumption and	
				capacity) for energy	
				Zvezdara more than 3	
				indicators for energy	
				and transport. Nis a	
				number of indicators for	
				energy transport and	
				waste management	
	1		1	waste management.	

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	Indicator 6: Annual number of data users (combined for all the participating municipalitie s) and disaggregate d, to the extent possible, by gender.	0	1,000	5,000	The 2019 PIR reports that the number of data users of the piloted open data portals within the City of Kragujevac and Zvezdara Municipality is more than 1,000. The exact number of users and beneficiaries of the CSUD Information System will be estimated upon its completion and full testing in all 8 pilot		No specific information to check the number of data users has been provided. In the PIR, no differentiation for gender was given, although it was mentioned that different options will be explored and considered during further software development with support of UNWOMEN.
	Indicator 7: Number of municipalitie s producing annual CSUD performance reports	0	2	5	municipalities. Kragujevac and Zvezdara prepared progress reports covering the period June 2018 – June 2019		Target is achieved, the 2 reports give a good overview on progress with implementation and achieved results.
Component/ Outcome 2: New innovative technical and systemic solutions and business models contributing to climate smart urban development identified, tested and replicated.	Indicator 8: Number of new innovative technical and systemic solutions and/or business models contributing to climate smart urban development identified, tested and replicated	NA	At least 1 new concept contributing to climate smart urban development tested in one of the subsectors	At least 5 new concepts contributing to climate smart urban development tested in different sectors and including at least one gender-sensitive concept	Out of the 5 projects selected for co- financing, 3 of the projects are already in operation (Sanicula, Esotron and Green Energy Point)	S	With 3 projects already operating, the target of 1 new concept tested in one of the subsectors has been over-achieved. Rating is S as further work is required to meet the end-of-project target of 5 new concepts including at least one gender-sensitive concept.

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	Indicator 9: Number of direct beneficiaries with gender disaggregate d data from the measures implemented	NA	4,000, from whom not more than 55% for the same gender	15,000, from whom not more than 55% for the same gender	Up to now, a total of around 1,350 persons participated in various events, out of which 286 in preparatory workshops, 148 in info days, 140 in the international mid-term event and 783 in other events. No disaggregation by gender was available. The Project also participated in a number of bigger events with thousands of participants, e.g. EcoFair, but it's difficult to argue that these are direct project beneficiaries. From the pilot projects, Green Energy Point reported contracts with around 200 small suppliers of wood, Esotron around 25 new clients. This gives a total of around 1,600 direct beneficiaries.		The project had a remarkable outreach during its first 2 years and made a large number of quality contacts with stakeholders. Although only a third of the target was achieved, this is a good result. There is lack of gender disaggregation in the figures provided and there is no proper monitoring system keeping track of the progress towards target.
Component/ Outcome 3: Knowledge management and M&E to facilitate learning, scaling up and replication of project results.	Indicator 10: Status of the Project MRV system and quality of the data delivered by that	No project related MRV system in place	A MRV system for emissions reductions resulting from project activities in place and reporting verified data from all activities.	A MRV system for emissions reductions resulting from project activities in place and reporting verified data from all activities.	At the time of the MTR mission, no proper MRV system for emission reductions resulting from project activities has been in place. At the time of the mission, ToR for MRV support were under development, the expert was hired before submission of the MTR report.	α	The review of the 5 pilot projects showed serious gaps in judging additionality of GHG emission reductions, which led to an over- estimation of expected as well as actually achieved emission reductions. Also, there was no proper monitoring system in place tracking the emission reductions generated by the projects.

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PIMS 5551: Serbia - Climate Smart Urban Development Challenge (CSUD)

Indicator 11: Agreed knowledge management products and events delivered	NA	The CSUD knowledge management web-portal established At least one international CSUD knowledge management event (workshop or seminar) organized	The CSUD knowledge management web-portal sustained after the project Lessons learnt report finalized An international end of the project workshop organized	The CSUD web-site (http://inovacije.klimats kepromene.rs) has been transformed so that it also performs function of knowledge management web- portal. There is a separate section "Innovation Platform", which currently presents information on 12 innovative technological solutions. An international event was held in Belgrade on 11 October 2019 under the title "Citizens Build Smart Cities", with more than 140 national and	The web-site presents 12 innovative solutions, which are good examples to present innovative ideas. There is no information included in the section "Projects under development", which should include projects that need partners, financial resources, project documentation or other support to become mature projects. This section should be populated with project ideas and should be updated regularly.
Indicator 12: Number of expressions of interest received for replicating the project intervention strategy, specific technical solutions or business models for new projects and/or municipalitie s	NA	0	At least one new municipality and 5 project proponents expressing interest to replicate one or more of the supported interventions.	international participants. In addition to 8 municipalities involved through the Open Data Challenge, the City of Nis has expressed interest to replicate activities that are being conducted in 8 municipalities under the Open Data Challenge. As a response, the CSUD project team included the City of Nis into the UNDP led regional initiative "the City Experimentation Fund" - that should result in addressing systemic challenges and respond to key priorities and issues identified by the cities.	Information provided by the Project and interviews held during the on-site mission confirmed that there is interest of municipalities to replicate interventions tested in other stakeholders. When pursuing this indicator it should be considered that "replication of project intervention strategy, specific technical solutions or business models for new projects are required. Replicating the work under the Open Data Challenge is positive, but would not meet the requirements of Indicator 12.

4.2.2 Remaining barriers to achieving the project objective

There are a number of barriers remaining to achieving the project objective, these include:

- The main barrier is the lack of available cash co-financing from the MoEP. Up to now, only 10% of the cash committed (US\$ 5 million) were transferred to the project. This is a huge barrier in co-financing more innovative ideas, which were selected in the challenges held. If the gap in co-financing cannot be closed, there is an imminent risk in not achieving major project targets.
- Due to the lack of cash co-financing, the implementation of further innovation projects has been delayed. If there are additional funds available in 2020, time to implement innovation projects and guiding them through the difficult first phase is limited. There is a risk that support through the Project will end without pilot projects being fully operational, which is a risk for sustainability.
- Meetings held during the MTR mission revealed that there is limited staffing in the MoAET and therefore limited commitment on the side of the ministry. A more active role of the ministry would be helpful to guide the project in the remaining 2 years.

4.3 **Project Implementation and Adaptive Management**

4.3.1 Management Arrangements

The management arrangements allowed a smooth start of the project. The LPAC Meeting was held on 23 December 2016, signature of the ProDoc was on 21 February 2017, the Inception Workshop was held on 18 May 2017.

The Project Implementation Unit (PIU) consists of a Project Manager, a Project Coordinator and a Project Assistant. The PIU reports to the **Project Board (PB)**, which consists of the following members:

- Ministry of Environmental Protection
- UNDP

It was mentioned in the ProDoc that the Project Board is expected to include representatives from the Standing Conference of Towns and Municipalities (SCTM). This has been discussed between MoEP and UNDP and a decision was taken to only have the ministry and UNDP as members of the PB. Municipalities are more important as partners and will be involved in various project activities.

The Ministry of Energy (MoE) is involved in the project and especially in the beginning, there has been extensive sharing of information between the Project and the MoE. The contact has become less intensive and the MoE is not a member of the PB. It is recommended that there is pro-active approach of the Project towards the MoE to provide information on progress and developments, as many of the activities covered fall under the responsibility of the MoE.

The PB met 4 times since project start, in December 2017, December 2018, April 2019 and July 2019. In the first meeting, the activities implemented in 2017 and the work plan for 2018 were discussed. The second meeting focused on the results of the two challenges carried out in 2018 (Innovation Challenge and Open Data Challenge) and the work plan for 2019. The two meetings in 2019 focused on the Performance-Based Payments.

The **Ministry of Environmental Protection (MoEP)** has been very active in the early stages of project implementation. The National Project Director (NPD) at that time played a very active role in promoting the project and making relevant stakeholders aware of the challenges to be launched. At that time, the minister was present at most conferences and workshops, which helped in getting the required recognition. The impression from the current NPD was that there is too little time for the ministry to get deeply involved in the project. Responsibility for implementation lies fully with the Project Team and coordination between MoEP and UNDP is happening in longer intervals.

The MoEP expressed a high satisfaction with the performance of the project and the competent work delivered by UNDP. The Project Team managed to promote a new, very innovative approach, which is well appreciated by all relevant stakeholders in Serbia.

The role of **UNDP** is seen as very positive and as the main driver of the project. UNDP successfully managed to link the topic of innovation/innovation challenges with the topics of energy and climate change, which is seen as a huge achievement by all stakeholders.

There have been examples of adaptive management in the project, such as:

- The concept of incubators/accelerators has been a key component for the good progress the project has made, as it allowed project ideas to be further developed with professional support financed by the project. The concept of incubators/accelerators was not mentioned in the ProDoc and has only been added in the initial phases of the project.
- To support the development of selected pilot projects, Performance-Based Payments (PBPs) were signed with selected organizations. The concept of PBAs was not included in the ProDoc, but was added later. The main benefit of PBAs is that payments are based on performance and specific milestones are defined to trigger payments. This reduces the risk for the Project, as further payments are only made if there is sufficient progress.

Overall, management arrangements are satisfactory, the project is well managed by the Project Team with support from UNDP. However, stronger involvement of the MoEP would be helpful in further promoting project activities and disseminating lessons learnt. Moreover, a more pro-active approach of the Project towards the MoE would be beneficial, as many of the activities under the Project have an energy component.

4.3.2 Work planning

Work planning in the first two years and a half years of the project has been excellent. The project started on-time and the Inception Workshop was held in May 2017 less than 3 months after signature of the project document, the Inception Report was presented in June 2017. Work on the first outcomes started immediately and the Project was able to launch both the Open Data Challenge and the Innovation Challenge in November 2017. This is an excellent result and shows that serious progress can be made already in the first months of a project.

Up to the MTR mission, all work was carried out within the timelines defined in the Project Document.

4.3.3 Finance and co-finance

The following table gives an overview on the project budget and expenditures from January 2017 to August 2019. The planned disbursement for 2019 only covers 8 months, as the end of the monitoring period is August 2019.

Outcome	2017	2018	2019 (up to 31/08)	Total expenditure	Total planned for project	Total remaining
Outcome 1: Improved access to and availability of data	86,995	236,626	115,942	439,563	655,000	215,437
Outcome 2: New innovative technical and systemic solutions and business models	74532	310,895	238,585	624,012	1,095,000	470,988
Outcome 3: Knowledge management and M&E	510	5,368	17,990	23,868	95,000	71,132
Project management	30,317	22,630	0	52,947	205,000	152,053
Total	192,354	575,519	372,517	1,140,390	2,050,000	909,610
Annual planned disbursed	213,100	343,400	368,533	925,033		
% of planned disbursed	90.3%	167.6%	101.1%	123.3%	Overall disbursment	55.6%

Table 4: Project Budget and Expenditures from January 2017 to August 2019 (in USD)

The table shows that the project is well on-track with disbursement of funds during the years 2017 to 2019. Expenditures in 2018 were 68% higher than planned, which is due to earlier disbursement of funds under both challenges, the budget in the ProDoc had the bigger part of expenditures in years 3 and 4. Actual disbursement is 123% of planned disbursement and in total 55.6% of funds have been disbursed. This is well in line with the planned activities and shows the project is on track.

A minor budget revision was prepared and approved in 2019 to be able to accommodate the concept of Performance-Based Payments to the 5 most advanced innovative projects. In the revision, funds were moved from budget line 71455 to budget line 72645 (Low Value Performance Based Grants). The revision was approved in June 2019.

The project has received co-financing commitments from UNDP, the Ministry of Environmental Protection and various other stakeholders. Total co-financing commitment at endorsement was US\$ 10.56 million, out of which US\$ 10.06 million were in cash and US\$ 0.5 million in-kind. The following table gives an overview on co-financing commitments at endorsement.

Sources & type of co-	Cash	In-kind	Total
financing	US\$	US\$	US\$
GEF Agency/UNDP	100,000	0	100,000
Ministry of Environmental Protection	5,000,000	400,000	5,400,000
Serbian Innovation Fund	1,000,000		1,000,000

Table 5: Co-financing at endorsement

Embassy of Sweden	1,120,000		1,120,000
Delegation of European Union	340,000		340,000
UniCredit Bank	2,500,000		2,500,000
Standing Conference of Towns and Municipalities		100,000	100,000
TOTAL	10,060,000	500,000	10,560,000

By the time of the mid-term review, justified co-financing amounted to US\$ 1.64 million, around 15.5% of expected co-financing over the lifetime of the project and 46.9% of the mid-term target. There are several reasons for this:

- The MoEP gave a co-financing commitment of US\$ 5.4 million, of which 5 million were supposed to be contributed in cash. Due to budget constraints, the ministry only provided cash funding of US\$ 0.5 million in the first 3 calendar years of the project. The lack of funding provided by the MoEP has led to a financially challenging situation especially in the initial phases of the project, where a smaller number of projects than expected could be supported. The Project Team as well as UNDP have raised several times with the ministry that the lack of co-financing is a huge challenge for the project. Due to upcoming elections in spring 2020, there is a high risk that the difficult situation is prolonged and the MoEP does not follow its written commitment.
- Apart from UNDP and the MoEP, no other institution with initial cash commitments provided co-financing up to now. Reasons for that are diverse:
 - The Innovation Fund has a slightly different direction, with less focus on pilot projects, but more focus on companies closer to the market. Some of the CSUD projects could apply in one of the regular calls.
 - There are discussions with the Embassy of Sweden to start another challenge, focusing on biodegradable waste. UNDP is in discussions with the embassy, no decision is taken yet.
 - The Delegation of the European Union has been in close contact with CSUD to coordinate activities. No co-financing provided up to now, but the EU Delegation is open for discussions.
- The project successfully managed to secure additional co-financing from sources, which were not identified at CEO endorsement. These are as follows:
 - Cash co-financing from the Slovak Ministry of Finance, totaling to US\$ 203,000.
 - In-kind co-financing from GIZ, which supported company Esotron.
 - Cash co-financing from 4 companies implementing selected innovation projects, totaling US\$ 545,000.
- The Project Team claimed that one of the innovation projects (Green Energy Point) provided co-financing of US\$ 9.0 million, 2.5 million as equity and 6.5 million as a loan from UniCredit Bank. As explained in detail in chapter 4.2.1, the project is clearly not additional and would have been implemented without financing from UNDP. As a consequence, equity and loan financing of Green Energy Point cannot be considered as co-financing.

The following table gives an overview on co-financing at CEO endorsement and at MTR.

Table 6: Co-financing at CEO endorsement and at MTR

Sources & type of co- financing	Name of co-financer	Amount confirmed at CEO Endorsement US\$	Actual amount Contributed at MTR US\$						
CASH									
GEF Agency	UNDP	100,000	52,947						
Ministry of Environmental	Ministry of Environmental	5,000,000	503,892						
Protection	Protection	, ,	,						
Serbian Innovation Fund	Serbian Innovation Fund	1,000,000	0						
Embassy of Sweden	Embassy of Sweden	1,120,000	0						
Delegation of European Union	Delegation of Euroepan Union	340,000	0						
UniCredit Bank	UniCredit Bank	2,500,000							
	TOTAL CASH	10,060,000	556,839						
	IN- H	(IND							
GEF Agency	UNDP	0	25,000						
Ministry of Environmental Protection	Ministry of Environmental Protection	400,000	200,000						
Standing Conference of		100,000	0						
	TOTAL IN-KIND	500.000	225.000						
	ADDITIONAL CO-FIN	ANCING LEVERAGED	220,000						
Slovak Ministry of Finance	Cash								
(Technical documentation			128 000						
for new solar business			158,000						
models)									
Slovak Ministry of Finance	Cash		CE 000						
(City Experimentation Fund)			65,000						
GIZ	In-kind		100,000						
EsoTron	Cash		44,000						
Jugo - Impex E.E.R.	Cash		254,080						
Sanicula	Cash		120,036						
PUC Toplana Sabac	Cash		126,862						
GreenEnergy Point	Cash		0						
	TOTAL ADDITIONAL CO- FINANCING	0	847,978						
TOTAL CO-FINANCING		10,560,000	1,629,817						

4.3.4 **Project-level monitoring and evaluation systems**

The project's Monitoring and Evaluation (M&E) system consist of the indicators and outputs of the project's results framework. As mentioned in chapter 4.1.2, the indicators are adequate to monitor progress of the project.

So far, two Project Implementation Reviews (PIR) were carried out (2018 and 2018), with the 2019 PIR only available as a draft. The 2019 PIR raises a few points related to monitoring and suggested that these are to be investigated in detail during the MTR:

- The PIRs claim a specific number of beneficiaries from the project activities, but there is no monitoring system in place. The figure of beneficiaries is relevant for mandatory indicator #2 and indicator #9. The monitoring system should be revised to include these indicators and regular updates of the monitoring results should be carried out.
- Monitoring of GHG impacts is currently only based on application documents for the PBP contracts, which were prepared by the applicants. There is no follow up on status and level of implementation and impacts on the GHG emission reductions to be generated.

During the on-site visit it was mentioned that a Monitoring consultant will be hired. The consultant shall set-up a system which is able to monitor all 12 indicators. Special focus shall be given to the calculations of the GHG emission reductions. As can be seen from the analysis in chapter 4.2.1, most of the projects currently supported are in early stages of implementation. Hence, there is uncertainty on how GHG emission reductions will develop over the lifetime of the investments (20 years). The remaining time until the Terminal Evaluation shall be used to get a clearer picture and higher certainty when projecting GHG emission reductions to be generated after the end of the CSUD project.

The Monitoring Consultant shall also have a close look at additionality of projects in terms of GHG emission reductions and co-financing. As it turned out during the MTR, some of the projects receiving co-financing have a high innovation component, but lack additionality in terms of GHG emission reductions and/or co-financing. When evaluating new proposals in future challenges, the concept of additionality shall be checked by an expert (e.g. the Monitoring Consultant). As can be seen from the previous call, applicants lack technical capacity to evaluate whether a project is additional or not. Also, they are biased in their judgements.

4.3.5 Stakeholder engagement

The Stakeholder Engagement Plan of the ProDoc includes a long list of stakeholders in various categories, such as central government administration and related organisations and companies, local (municipal) administration and related organisations, energy and Environment related NGOs and professional associations, public/private energy companies and international organisations and financing entities. The Project has a formal engagement with the MoEP through the Project Board (PB), which met 4 times since project start. In addition to the PB meetings, there is regular contact between the Project Team and the MoEP, however, most initiative and work is on the side of UNDP and a more active role of the MoEP would be helpful. As mentioned in section 4.3.1 it is recommended that there is pro-active approach of the Project towards the MoE to provide information on progress and developments, as many of the activities covered by the Project fall under the responsibility of the MoE.

The Project has extensive contacts to various stakeholders, either through the numerous events, workshops and info days or through direct contact with key stakeholders and potential cooperation partners, such as GIZ, Delegation of the EU or Swedish Embassy. All stakeholders interviewed gave

very positive feedback on the work of the Project Team. UNDP successfully managed to link the topic of innovation/innovation challenges with the topics of energy and climate change, which is seen as a huge achievement by all stakeholders.

4.3.6 Communications

The internal communication between the project and the key stakeholders is done bilaterally and through the PB meeting minutes. The minutes are concise, clearly structured and give a good overview on the achievements and next steps in the project.

External communication is done through the numerous events, workshops and info days or through direct contact with key stakeholders and potential cooperation partners. Additionally, the project has set up an excellent project website (<u>http://inovacije.klimatskepromene.rs/</u>). The website gives a good overview on the innovation and the open data challenge, and provides various documents and multimedia content on the innovations. The website also includes an innovation platform, which introduces 12 mature projects. Some improvements are suggested:

- Under "Innovation Platform" in the sections on "Projects under development" and "Mentorship", there is just placeholder text. This should be replaced with relevant information.
- The website should be more actively presented as a platform to bring together innovators and potential investors, financiers, partners, etc. Up-to-date information on new innovation ideas should be presented and updated regularly. This should not only be done in the innovation section, but also in news (e.g. by creating a section "innovation idea of the month").
- Relevant news should be published on the website and should be shared by email with all stakeholders, making reference to new information being published on the website.
- The "Contact" section is very impersonal, with no information about the Project Team or an address. This should be improved.

4.4 Sustainability

There are limited risks to the sustainability of project impacts and it is reasonable to expect that the majority of Outcomes will be sustained. Accordingly sustainability is rated as Moderately Likely (ML).

4.4.1 Financial risks to sustainability

There are various aspects to be considered in the evaluation of financial risks to sustainability. Under the Project, 5 pilot projects have been financed up to now. These projects had to present business plans, which were evaluated in the application process. Performance-Based Payments were agreed with these 5 projects, where payments will be made upon achievement of specific milestones. The detailed analysis in section 4.2.1 showed that there are various challenges in some of the projects and as of now, there are moderate financial risks towards sustainability, as it is not clear whether all 5 projects will achieve their long-term targets. The system of the PBPs will be very helpful during the Terminal Evaluation in re-evaluating the risk situation.

The difference in co-financing commitments made during project approval and actual co-financing materialized is another key risk for sustainability. The Project is providing funds for the implementation of innovation projects. Although there has been excellent participation in the different calls and diligent selection of the most viable innovation ideas, there is a risk that projects are not or only partly successful. Increasing the number of pilot projects clearly mitigates that risk and brings higher

likelihood for a sustainable outcome. Especially the lack of co-financing provided from the Ministry of Environmental Protection, where only 10% of the committed co-financing was provided up to now, is a serious risk for the project.

On the positive side, the approach chosen by the Project to initiate Innovation Challenges has raised a lot of interest. There are advanced discussions with the Embassy of Sweden about financing an additional Innovation Challenge on biodegradable waste. Innovation Challenges are seen as a very interesting approach by the Swedish International Development Cooperation Agency (SIDA) and – if implemented successfully – the approach could be replicated in other countries.

4.4.2 Socio-economic risks to sustainability

The Project is focusing on innovative, but at the same time implementable solutions that can be implemented and brought to development quickly and bring direct economic and social benefits to the local communities, while also producing real and tangible GHG reduction benefits in a cost-effective way. A good example is the SCADA system to be implemented in the district heating system of the city of Sabac. This will help the operator to increase efficiency of the district heating system, which will lead to reduction in fuel costs. Consumers will directly benefit, as fuel costs are part of the district heating tariff.

4.4.3 Institutional framework and governance risks to sustainability

There is limited risk of institutional framework and governance to sustainability. The Project is well embedded in the institutional framework and is having good and regular contact with key stakeholders. The Ministry of Environmental Protection (MoEP) is the key stakeholder the Project is dealing with and cooperation has been very active in the early stages of project implementation. The feedback from MoEP during the review was that there is too little time for the ministry to get deeply involved in the project. Responsibility for implementation lies fully with the Project Team and coordination between MoEP and UNDP is happening in longer intervals. This is a certain risk for sustainability after the end of the Project. Increased contact with the MoEP and communicating the achievements of the projects under the two challenges could contribute to mitigating this risk.

As many of the activities are in the energy sector, the involvement of the Ministry of Energy (MoE) is important for sustainability of the achievements. Contact with the MoE has become less intensive and the MoE is not a member of the PB. It is recommended that there is pro-active approach of the Project towards the MoE to provide information on progress and developments, as many of the activities covered fall under the responsibility of the MoE.

4.4.4 Environmental risks to sustainability

There is no environmental risk to sustainability since the project is designed to reduce the consumption of fossil fuels, improve energy efficiency and increase the use renewables.

5. CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

The following conclusions can be drawn:

- By defining the two main components, the Open Data Challenge and the Innovation Challenge, the project is well structured and puts a clear focus on data management on the one hand and the identification of innovative solutions on the other hand. Both components have a well-defined general process on how to carry out the challenges, which is helpful guidance for the Project Team. While giving clear guidance on the process, the Project is open to all relevant sectors, such as energy, transport, construction, urban planning, water and waste management. This is wide approach is helpful in nurturing innovative ideas in all sectors and allows to select the best ideas for further development and finally implementation.
- The Project Results Framework is well elaborated and includes well-defined indicators meeting the requirements of GEF to be "SMART". Targets both for MTR and Terminal Evaluation are clearly defined, MTR targets take into account a ramp-up period in the project and are usually between 25% and 40% of the target for the Terminal Evaluation.
- A large number of information and capacity building events were held to prepare for the Open Data and the Innovation Challenge. The challenges were successfully launched in November 2017. 15 applications were submitted for the Open Data Challenge and 111 applications for the Innovation Challenge. This is an excellent result and is a testimonial for the good work of the Project Team. From these applications, 8 municipalities and 34 innovative ideas were selected for further development. An additional call for advanced project was held, from which 4 innovation projects were selected.
- Out of the 38 innovative ideas, the 5 best innovation projects were selected for receiving cofinancing for implementation. Financing is provided through Performance-Based Agreements (PBP), which link the provision of fund to the achievement of individual milestones agreed between the projects and UNDP. This is a good example of adaptive management on the one hand, but also limits the risk of financing provided, as payment is only done if milestones are reached.
- From the 5 innovation projects supported, 3 projects have been in operation at the time of the MTR, which is a good achievement. The other 2 project seem to be on track with implementation.
- There are issues with the additionality of some of the selected innovation projects. In one of
 the cases, the information provided does not justify accounting the GHG emission reductions
 as additional. In another case the contribution of UNDP towards the total investment costs is
 marginal, as a consequence it cannot be argued that the GHG emission reductions generated
 are counted towards the project target and that the funding provided by the company should
 be considered as co-financing. However, these projects are excellent innovation projects and
 play an important role as pilot projects in pushing the development of further innovation
 projects.
- The MTR proved to be challenging for some indicators. The purpose of innovation challenges is to identify and nurture new ideas and approaches. As a consequence, these challenges are very broadly defined. On the other hand, indicators of GEF projects have a very narrow definition, which makes it challenging to exactly measure progress of innovation projects based on these indicators. The project made good progress in identifying and supporting innovative projects. Some of the projects selected are facing challenges in additionality and are not contributing towards additional GHG emission reductions and/or additional co-

financing provided. However, it is still important to include those projects in the CSUD project due to their innovation component.

- For some of the selected innovation projects, considerable steps are required to achieve the projected contributions towards specific indicators. In some cases this is a scale-up of production, in other cases the projects still need to be implemented. In the latest PIR, it was assumed that once projects receive support, full benefits are accounted towards project targets over the life-time of 20 years. A more conservative approach is suggested taking into account the required additional steps in each of the projects to generate full benefits.
- There were good examples of adaptive management in the Project so far. The concept of
 incubators/accelerators was not mentioned in the ProDoc and has only been added in the
 initial phases of the project and was a key component for the good progress the project has
 made, as it allowed project ideas to be further developed with professional support financed by
 the project. To support the development of selected pilot projects, Performance-Based
 Payments (PBPs) were signed with selected organizations. The concept of PBAs was not
 included in the ProDoc, but was added later. The main benefit of PBAs is that payments are
 based on performance and specific milestones are defined to trigger payments. This reduces
 the risk for the Project, as further payments are only made if there is sufficient progress.
- The latest update of the mentor working with the 9 municipalities reported that ideas were grouped, with a focus on energy efficiency and identifying the solar potential on a local level. This is a good approach as participants can learn from each other as they are facing similar challenges.
- The work of the CSUD Project Team has been excellent up to now. They have managed to turn a very broadly defined Project Document into a project with real, measurable results. They have managed to integrated climate change into the topic of innovation, something which has received very positive comments from a number of stakeholders interviewed during the MTR mission. An international CTA (Chief Technical Advisor) was hired to support the project in various topics, this was helpful in increasing the quality of work.
- The Project successfully integrated the private sector into the activities, which is demonstrated by a large number of private sector representatives participating in the various events and workshops and by the majority of Innovation Challenge projects being implemented by private sector. Performance-Based Payments (PBPs) have proven to be an excellent tool of working with private sector and linking financial contributions to the achievement of milestones.
- Stakeholders interviewed during the MTR mission expressed their interest in replicating the approach of the Innovation Challenge. There are advanced discussions with the Embassy of Sweden about financing an additional Innovation Challenge on biodegradable waste. Innovation Challenges are seen as a very interesting approach by the Swedish International Development Cooperation Agency (SIDA) and if implemented successfully the approach could be replicated in other countries. Also the EU Delegation expressed interest in replicating an Innovation Challenge for specific project types. This is an excellent result of the work of the Project Team.
- Co-financing is a key issue in the project. Up to now, the MoEP has only provided 10% of the cash funds committed at CEO endorsement, this is around US\$ 0.5 million compared to the commitment of US\$ 5 million. At this point, the contribution from the MoEP should have been at least 50% of the committed amount. The lack of cash co-financing has led to a financially challenging situation especially in the initial phases of the project, where a smaller number of projects than expected could be supported.
- The detailed analysis of the pilot projects has shown that there serious issues regarding additionality for some of the projects in the Innovation Challenge. In one case, the contribution from UNDP to the total investment costs is only marginal, which makes it difficult to argue

additionality. Moreover, the commitment for co-financing from UNDP was given while the project was already in the final stages of implementation. In the second case, the project is innovative, but there are no GHG emission reductions being generated, as the GHGs are being extracted from the process both in the baseline and the project scenario.

• While the project has already good ratings now, there is quite some room for improvement. Based on the excellent work of the Project Team up to now and if recommendations made in the following section are implemented, the Project has a good chance to be evaluated as a highly successful project during Terminal Evaluation.

While the project has already good ratings now, there is quite some room for improvement. Based on the excellent work of the Project Team up to now and if recommendations made in the following section are implemented, the Project has a good chance to be evaluated as a highly successful project during Terminal Evaluation.

5.2 Recommendations

The following recommendations can be made:

Recommendation 1 – Increase efforts to secure cash co-financing from MoEP: The cash contribution from the MoEP will be key for achieving the project targets. Immediate action needs to be taken to secure cash co-financing by the MoEP, with the majority of the missing funds to be provided in the coming budget year. The Project is operational for another 2 years, if majority of funds committed but not provided yet (USD 4.5 million) are provided in 2020, additional projects can be co-financed and there will be sufficient time to provide the necessary support during preparation and implementation. A contribution in 2021 will have a much smaller impact, as there might not be sufficient time to implement additional pilots. All available channels (Resident Representative, Project Team) should be used to secure the co-financing, the EU Delegation has expressed its willingness to support UNDP in these efforts.

Project Team and UNDP should put immediate efforts at finalizing discussions with the Embassy of Sweden on financing an additional challenge. If funds are secured in early 2020, this leaves sufficient time for preparation and implementation of the challenge. The EU Delegation hasn't provided co-financing up to now, but is open for discussions. These discussions should be held by the Project Team in early 2020.

Recommendation 2 – Improve definition of term "direct beneficiary": There is a need for further definition of the term "direct beneficiary" used in Indicators 2 and 9, as it is not clear how the term is being used in the project. The definition should be prepared by the Project Team in cooperation with the MRV consultant (support should be sought from the Regional Hub in Istanbul on guidance available from GEF) and should be the basis for the further monitoring of these two indicators. Definition should be finalized in Q1 of 2020 to allow proper monitoring. Due to the various events and activities carried out under the Project, a clear definition of the term "direct beneficiary" is not easy. For workshops, info days and events, where the Project is the organizer or has a main role in organizing and financing the event, all participants should be counted as direct beneficiaries. If the CSUD Team participated – as one of many participants – in a bigger public event, the number of participants should not be accounted towards the target. For the pilot projects financed, there should be a direct connection between the funding and beneficiaries. Examples are the Green Energy Point project, where the project led to contracting 200 small suppliers of wood or the activities of Esotron,

where 25 new clients were contracted. These examples should help as guidelines in defining the term "direct beneficiary".

Recommendation 3 – Revise focus on open data work: Experience from the initial work with the municipalities on the Data Challenge has shown that a lot of effort needs to be put into collecting, editing and publishing data. There is a risk that this is only done if there is support through projects such as CSUD, but there is no follow up and as a consequence data collected is not being updated. Focus should be given on automatic collection of data, such as in the example of the swimming pool in Zvezdara, as this reduces the effort of collection to a minimum and also provides real-time data. Regarding data sets, focus should be given on such data, which lead to immediate benefits in the municipalities, such as fuel consumptions in public buildings. This should encourage and further develop the use of data collected and published. Work on this recommendation will have to be led by the Project Team and should be implemented from January 2020 onwards.

Recommendation 4 – Revise additionality considerations and GHG calculations using the approved GEF methodology: Analysis has shown that there are issues with the additionality of some of the selected innovation projects. The figures provided by the innovation projects during the application process need to be critically reviewed, as these are not prepared by experts and applicants are biased. Expected GHG emission reductions have to be re-calculated based on a review of additionality of each of the projects. Ramp-up periods need to be considered when calculating results over a 20-years lifetime and the likelihood of required capacity extensions taking place needs to be critically reviewed if projects are currently not operating at the expected output. It is advised that external capacity (consultant) is contracted to support the work of the M&E consultant and to assist in clearly defining baseline and additionality on the one hand and to critically reviewing the information provided by the companies on the other hand. The calculations need to follow the approved GEF methodology. Implementation should start in January 2020.

The analysis of the Green Energy Point project clearly showed that co-financing provided by UNDP was much too small to argue that the UNDP funding was essential for project implementation. Additionality considerations shall also include an investigation of the additionality of co-financing provided to secure that financing provided by UNDP plays an essential role in implementation of innovation projects.

Recommendation 5: Focus on replicability and sustainability: Although performance of the Project Team was excellent, certain improvements are still possible. The projects selected so far both in the Open Data Challenge and the Innovation Challenge cover a wide area of various applications, which is excellent for an innovation project. However, in the second half of the project, there should be more effort to secure replicability and sustainability.

When looking through the data published by municipalities under the Open Data Challenge, there seems to be little consistency in the way data is collected and presented. The data sets in the different municipalities range from extensive historic data sets collected with a lot of effort and no continuous update to the automatic transmission of one data set because the equipment installed by the municipality allows that. Whereas it is good to investigate different routes, it would be important in the second phase to improve consistency and replicability, in order to achieve sustainability of selected approaches. Bundling municipalities in the Open Data Challenge is an excellent step in that direction.

Also in the Innovation Challenge replicability and sustainability should be a key focus. Projects such as the SCADA project in the city of Sabac have a high replication potential, as district heating is widespread in Serbia. Projects such as the Green Energy Point project, were supposed to deliver large contributions towards targets, but have issues with additionality in that they highly likely would have happened anyways. When selecting further projects for support, replicability should be a key focus rather than pushing large projects just because they are supposed to have a considerable contribution towards a target.

<u>Recommendation 6 – Setup of M & E system</u>: A proper M&E system needs to be setup to monitor each of the indicators defined in the ProDoc. Main responsibility for that task is with the Project Team, with support from the M&E consultant in the field of GHG emission reductions. Special care has to be given to GHG emission reductions and co-financing, based on the recommendations on additionality. It is understood that an M&E consultant has been hired to contribute to that work and it is advised to carefully review the outputs of this assignment. Another key component needs to be the monitoring of gender impacts, which has not been included in the monitoring up to now.

Setting up the M&E system has high priority. A proper functioning system is important to monitor project progress and – if necessary – implement corrective actions or adaptive management. Work on the M&E system should be a key focus in Q1 of 2020.

Recommendation 7– Conservative estimation of results: Reporting of the Project Team on results assumes that once innovation projects receive support, full benefits are accounted towards project targets over the life-time of 20 years. Reality shows that a more conservative approach would be helpful to fully understand progress and further support necessary to achieve the expected results. Currently it is neglected that additional steps, such as increase of capacity or sale of products are required to achieve the results. The Project Team in cooperation with the M&E consultant need to follow-up closely the progress of each of the projects to fully understand the implementation level to be achieved during the course of the Project and likely to be achieved after end of the Project.

<u>Recommendation 8 – Performance Based Payments</u>: The Project uses the new approach of Performance Based Payments (PBPs) to support innovation projects in their implementation. In contrast to other supporting mechanisms such as grants, funding is only provided if pre-agreed milestones are reached. Typically, a company receives 3-4 payments under a PBP contract.

It would be helpful to summarize the lessons learnt from this new approach in a short study, which is prepared towards the end of the Project, when work with innovation projects financed through PBPs is finalized. The results and lessons learnt from the CSUD project would help the application of the PBP approach in other projects. Ideally, the Project Team should prepare the short study, as they have the best know-how on that topic.

<u>Recommendation 9 – Possible Project Extension:</u> Taking into account the delay in receiving cash co-financing from the MoEP, a project extension should be considered. As explained in detail in recommendation 1, the lack of cash co-financing is endangering the achievement of the project targets. More time for implementation would help the project in achieving the various indicators. A condition for the extension would be the provision of all (or a majority) of the committed co-financing by the MoEP by Q4 2020 at the latest.

6. ANNEXES

6.1 MTR ToR (excluding ToR annexes)

6. UNDP-GEF Midterm Review Terms of Reference

Title:	International consultant for midterm review of the GEF Project: "Climate Smart Urban Development Challenge"
Programme:	GEF Project:" Climate Smart Urban Development Challenge", PIMS No 5551
Reporting to:	Portfolio Manager
Duty Station:	Home based (14 working days) and at least two mission to Belgrade (11 working days and travel days) and this includes day trip visits to project locations in Serbia
Type of contract:	Individual Contract (IC) or Reimbursable Loan Agreement (RLA) based on Long Term Agreement (LTA)
Duration:	13 August 2019 to 15 December 2019
Estimated number	of working days: 25 working days over a period of 5 months from 1 August 2019 to 15 December 2019

BACKGROUND

A. Project Title: Climate Smart Urban Development Challenge

7. B. Project Description

This is the Terms of Reference (ToR) for the UNDP-GEF Midterm Review (MTR) of the *medium*-sized project titled *Climate Smart Urban Development Challenge* (PIMS 5551) implemented through the UNDP, which is to be undertaken in 2019. The project started on the 21 February 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). This ToR sets out the expectations for this MTR. The MTR process must follow the guidance outlined in the document *Guidance For Conducting Midterm Reviews of UNDP-Supported, GEF-Financed Projects (See Annexes)*.

The United Nations Development Programme (UNDP), acting as an implementing agency of the Global Environment Facility (GEF), is supporting the Ministry of Environmental Protection (MoEP) to implement the five-year "Climate Smart Urban Development Challenge (CSUD)" project, jointly financed by the GEF, MoEP and stakeholders. The objective of the project is to promote climate-smart urban development. By a challenge prize approach, it seeks to actively engage the civil society, public and business communities to come up with new and innovative ideas on how to contribute to this in practice and to jointly develop, finance and implement these ideas

further. Broader and more effective use of new information and communication technologies (ICT)to enable and spearhead innovation and productivity gains, optimization of the resource use (e.g. by improved energy efficiency and resource sharing), reduction of physical mobility needs, more attractive public and non-motorized transport, increased use of renewable energy sources, climate smart waste management (improved recycling schemes and waste to energy) and other measures contributing to climate change mitigation are among the topics to be considered in this context.

The project implementation started in February 2017 and will last until December 2021. The total project budget is US\$ 12,510,000, out of which US\$ 1,950,000 is GEF budget, UNDP US\$ 100,000, in-kind US\$ 500,000 and other (parallel) cash US\$ 9,960,000.

Main project outcomes are:

Outcome 1: Improved access to and availability of data by an open data approach for development, management and monitoring of CSUD related performance of Serbian municipalities.

Outcome 2: New innovative technical and systemic solutions and business models contributing to climate

Outcome 3: Knowledge management and M&E to facilitate learning, scaling up and replication of project results.

All activities and measures undertaken by the project will need to result in tangible GHG emissions reduction and considered from the perspective of climate smart planning. Project provided assistance in the establishment of "Innovation Challenge Programme" with the goal to provide initial capital for interested stakeholders (including businesses, research-scientific institutions, civil society organizations, individuals etc.) for testing and initiation of most innovative project ideas, including the opportunity for further co-financing of the most successful solutions. By the establishment of "Innovation Challenge Programme, project seeks to actively engage the civil society, research-scientific institutions, public and business community to come up with new and innovative ideas on how to contribute to this in practice and to jointly develop, finance and implement these ideas further.

The project assists municipalities to mainstream ICT into city management systems, putting in place digital inventories and tools to gather data and monitor actions. The **Open Data Challenge** was a public call for proposing innovative and cost-efficient ideas/solutions for simple and user-friendly public access to city/municipal climate change-related data, and for improving the management of this data. Open Data Challenge Call was open from 22 November 2017 until 05 February 2018, following the awarding of the best innovative ideas in June 2018. Under this challenge eight innovative ideas proposed by local self-government (municipalities and cities) were awarded, covering areas of energy efficiency, solar energy promotion, sustainable transportation, waste management, engagement of citizens in urban planning and development. In the following stage, the project is focused at the development and testing of the information system for climate smart urban development (including also the local greenhouse gas inventory). After completion of such information system, the project will also asses and award those cities and municipalities which have demonstrated most progress and high performance in its launching and implementation.

The **Innovation Challenge** was a public call for proposing innovative and cost-effective ideas for the reduction of greenhouse gases (GHG) emission created by public services and facilities, while simultaneously providing social, economic and environmental benefits for the community and its citizens. Out of 111 innovative ideas received to the challenge, 34 project ideas in total proposed by individuals, public and private companies, CSOs, local self-governments and research community, have been selected and were further mentored by the Climate Incubator/Accelerator towards mature projects stage. Selected project ideas under the Innovation Challenge are related to the areas of energy efficiency, renewable energy, bio-fuels, urban mobility, agriculture, green infrastructure, organic waste management, forestry.

In order to support further development of innovative project ideas and project proposals selected during independent evaluation under both Challenges, into projects and businesses that are ready for implementation at local level, the Ministry of Environmental Protection and UNDP have established a Climate Incubator/Accelerator. Services that are provided through the Climate Incubator include: business advisory support, one-on-one mentoring, facilitating access to finance and market, building partnerships and networking, promotion, targeted trainings and review and/or development of technical documentation.

Overall, the CSUD project promotes innovative and integrative approaches and new technologies for reducing greenhouse gas emissions at the local level and new business models, public private partnerships and social inclusiveness. This should further trigger transformational shift towards smart, inclusive cities of the future that are based on citizens participation and citizens centered solutions.

DUTIES AND RESPONSIBILITIES

8. C. Scope of Work and Key Tasks

The MTR team will consist of two independent consultants that will conduct the MTR - one team leader (with experience and exposure to projects and evaluations in other regions globally) and one national team expert, from the country of the project. The consultants cannot have participated in the project preparation, formulation, and/or implementation (including the writing of the Project Document) and should not have a conflict of interest with project's related activities.

The MTR international consultant will assess progress towards the achievement of the project objectives and outcomes as specified in the Project Document and assess early signs of project success or failure with the goal of identifying the necessary changes to be made in order to set the project on-track to achieve its intended results. The MTR will also review the project's strategy, its risks to sustainability. The MTR team must provide evidence-based information that is credible, reliable and useful. 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 operational guidelines, manuals and systems, etc.) provided by the Project Team and Commissioning Unit. Then they will participate in a MTR inception report thereafter. The MTR mission will then consist of interviews and site visits to (list preliminary sites). The MTR team will review the baseline GEF focal area Tracking Tool submitted to the GEF at CEO endorsement, and the midterm GEF focal area Tracking Tool that must be completed before the first MTR field mission begins.

The international expert will participate in two missions to Serbia, one of five working days (towards the start of the contract and preferably in late August or early September) and one of two working days (towards the end of the assignment preferably by the end of October) to present the draft final report to all key stakeholders and to discuss the key recommendations of the MTR. The international expert will be supported by one national expert, contracted by UNDP to provide the baseline analysis report for the project related activities and to assist with organizing and participating with meetings with key stakeholders during the evaluation mission.

The MTR team is expected to follow a collaborative and participatory approach⁸ ensuring close engagement with the national expert with the Project Team, government counterparts (the GEF Operational Focal Point), the UNDP Country Office(s), UNDP-GEF Regional Technical Advisers, and other key stakeholders. The MTR will follow the new January 2019 Guidelines for Evaluations and be carried out in accordance with the guidelines on independence of evaluations.

Engagement of stakeholders is vital to a successful MTR.⁹ Stakeholder involvement should include interviews by both the international expert and the national expert with stakeholders who have project responsibilities, including but not limited to the Ministry of Environmental Protection, Serbian Environmental Protection Agency, UNDP, other Project partners, key experts and consultants in the subject area, Project Board, project stakeholders, local governments, academia, nongovernmental organizations, public and private companies etc.. Additionally, the MTR team is expected to conduct field missions to at least two locations of the supported pilot projects. It is envisaged that these field visits should be carried out during the first mission to Serbia.

The final MTR report should take into account all the written and verbal comments of key stakeholders and it should be finalized after the second shorter mission to Serbia. The final MTR report should describe the full MTR approach taken and the rationale for the approach making explicit the underlying assumptions, challenges, strengths and weaknesses about the methods and approach of the review.

⁸ For ideas on innovative and participatory Monitoring and Evaluation strategies and techniques, see <u>UNDP Discussion Paper: Innovations in</u> <u>Monitoring & Evaluating Results</u>, 05 Nov 2013.

⁹ For more stakeholder engagement in the M&E process, see the <u>UNDP Handbook on Planning, Monitoring and Evaluating for</u> <u>Development Results</u>, Chapter 3, pg. 93.

DETAILED SCOPE OF THE MTR

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

The MTR team will assess the following four categories of project progress. See the *Guidance For Conducting Midterm Reviews of UNDP-Supported, GEF-Financed Projects* for extended descriptions.

i. 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. Were lessons from other relevant projects properly incorporated into the project design?
- Review how the project addresses country priorities. Review country ownership. Was the project concept in line with the national sector development priorities and plans of the country (or of participating countries in the case of multi-country projects)?
- Review decision-making processes: were perspectives of those who would be affected by project decisions, those who could affect the outcomes, and those who could contribute information or other resources to the process, taken into account during project design processes?
- Review the extent to which relevant gender issues were raised in the project design. See Annex 9 of *Guidance For Conducting Midterm Reviews of UNDP-Supported, GEF-Financed Projects* for further guidelines.
- If there are major areas of concern, recommend areas for improvement.

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, Time-bound), and suggest specific amendments/revisions to the targets and indicators as necessary.
- Are the project's objectives and outcomes or components clear, practical, and feasible within its time frame?
- 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.
- Ensure broader development and gender aspects of the project are being monitored effectively. Develop and recommend SMART 'development' indicators, including sex-disaggregated indicators and indicators that capture development benefits.

ii. Progress Towards Results

Progress Towards Outcomes Analysis:

• Review the logframe indicators against progress made towards the end-of-project targets using the Progress Towards Results Matrix and following 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 each outcome; make recommendations from the areas marked as "Not on target to be achieved" (red).

Table. Progress Towards Results Matrix (Achievement of outcomes against End-of-project Targets)								
Project	Indicator ¹⁰	Baselin	Level in	Midter	End-	Midterm	Achieveme	Justificati
Strategy		e Level ¹¹	1 st PIR	m	of-	Level &	nt Rating ¹⁴	on for
			(self-	Target ¹²	project	Assessmen	_	Rating
			reported)	-	Target	t ¹³		-
Objective:	Indicator (if							
	applicable):							
Outcome	Indicator 1:							
1:	Indicator 2:							
Outcome	Indicator 3:							
2:	Indicator 4:							
	Etc.							
Etc.								

Indicator Assessment Key

Green= Achieved Yellow= On target to be achieved Red= Not on target to be achieved

In addition to the progress towards outcomes analysis:

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

iii. Project Implementation and Adaptive Management

Management Arrangements:

• Review overall effectiveness of project management as outlined in the Project Document. Have changes been made and are they effective? Are responsibilities and reporting lines clear? Is decision-making transparent and undertaken in a timely manner? Recommend areas for improvement.

¹⁰ Populate with data from the Logframe and scorecards

¹¹ Populate with data from the Project Document

¹² If available

¹³ Colour code this column only

¹⁴ Use the 6 point Progress Towards Results Rating Scale: HS, S, MS, MU, U, HU

- Review the quality of execution of the Executing Agency/Implementing Partner(s) and recommend areas for improvement.
- Review the quality of support provided by the GEF Partner Agency (UNDP) and recommend areas for improvement.

Work Planning:

- Review any delays in project start-up and implementation, identify the causes and examine if they have been resolved.
- Are work-planning processes results-based? If not, suggest ways to re-orientate work planning to focus on results?
- Examine the use of the project's results framework/ logframe as a management tool and review any changes made to it since project start.

Finance and co-finance:

- Consider the financial management of the project, with specific reference to the cost-effectiveness of interventions.
- Review the changes to fund allocations as a result of budget revisions and assess the appropriateness and relevance of such revisions.
- Does the project have the appropriate financial controls, including reporting and planning, that allow management to make informed decisions regarding the budget and allow for timely flow of funds?
- Informed by the co-financing monitoring table to be filled out, provide commentary on co-financing: is co-financing being used strategically to help the objectives of the project? Is the Project Team meeting with all co-financing partners regularly in order to align financing priorities and annual work plans?

Project-level Monitoring and Evaluation Systems:

- Review the monitoring tools currently being used: Do they provide the necessary information? Do they involve key partners? Are they aligned or mainstreamed with national systems? Do they use existing information? Are they efficient? Are they cost-effective? Are additional tools required? How could they be made more participatory and inclusive?
- Examine the financial management of the project monitoring and evaluation budget. Are sufficient resources being allocated to monitoring and evaluation? Are these resources being allocated effectively?

Stakeholder Engagement:

• Project management: Has the project developed and leveraged the necessary and appropriate partnerships with direct and tangential stakeholders?

- Participation and country-driven processes: Do local and national government stakeholders support the objectives of the project? Do they continue to have an active role in project decision-making that supports efficient and effective project implementation?
- Participation and public awareness: To what extent has stakeholder involvement and public awareness contributed to the progress towards achievement of project objectives?

Reporting:

- Assess how adaptive management changes have been reported by the project management and shared with the Project Board.
- Assess how well the Project Team and partners undertake and fulfil GEF reporting requirements (i.e. how have they addressed poorly-rated PIRs, if applicable?)
- Assess how lessons derived from the adaptive management process have been documented, shared with key partners and internalized by partners.

Communications:

- Review internal project communication with stakeholders: Is communication regular and effective? Are there key stakeholders left out of communication? Are there feedback mechanisms when communication is received? Does this communication with stakeholders contribute to their awareness of project outcomes and activities and investment in the sustainability of project results?
- Review external project communication: Are proper means of communication established or being established to express the project progress and intended impact to the public (is there a web presence, for example? Or did the project implement appropriate outreach and public awareness campaigns?)
- For reporting purposes, write one half-page paragraph that summarizes the project's progress towards results in terms of contribution to sustainable development benefits, as well as global environmental benefits.

iv. Sustainability

- Validate whether the risks identified in the Project Document, Annual Project Review/PIRs and the ATLAS Risk Management Module are the most important and whether the risk ratings applied are appropriate and up to date. If not, explain why.
- In addition, assess the following risks to sustainability:

Financial risks to sustainability:

• What is the likelihood of financial and economic resources not being available once the GEF assistance ends (consider potential resources can be from multiple sources, such as the public and private sectors, income generating activities, and other funding that will be adequate financial resources for sustaining project's outcomes)?

Socio-economic risks to sustainability:

• Are there any social or political risks that may jeopardize sustainability of project outcomes? What is the risk that the level of stakeholder ownership (including ownership by governments and other key stakeholders) will be insufficient to allow for the project outcomes/benefits to be sustained? Do the various key stakeholders see that it is in their interest that the project benefits continue to flow? Is there sufficient public / stakeholder awareness in support of the long term objectives of the project? Are lessons learned being documented by the Project Team on a continual basis and shared/ transferred to appropriate parties who could learn from the project and potentially replicate and/or scale it in the future?

Institutional Framework and Governance risks to sustainability:

• Do the legal frameworks, policies, governance structures and processes pose risks that may jeopardize sustenance of project benefits? While assessing this parameter, also consider if the required systems/ mechanisms for accountability, transparency, and technical knowledge transfer are in place.

Environmental risks to sustainability:

• Are there any environmental risks that may jeopardize sustenance of project outcomes?

Conclusions & Recommendations

The MTR team will include a section in the MTR report setting out the MTR's evidence-based **conclusions**, in light of the findings.¹⁵

Additionally, the MTR international consultant 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 international consultant should make no more than 15 recommendations total.

Ratings

The MTR international consultant will include its ratings of the project's results and brief descriptions of the associated achievements in a MTR Ratings & Achievement Summary Table in the Executive Summary of the MTR report. See Annex E for ratings scales. No rating on Project Strategy and no overall project rating is required.

¹⁵ Alternatively, MTR conclusions may be integrated into the body of the report.

Mea	asure	MTR	Rating	Achievement	Description	
Pro	ject Strategy	N/A	6		1	9.
Pro	gress	Objec	tive			
Tov	vards	Achiev	vement			
Res	ults	Rating	: (rate 6 pt.			
		scale)				
		Outco	ome 1			
		Achiev	vement			
		Rating	;: (rate 6 pt.			
		scale)				
		Outco	ome 2			
		Achie	vement			
		Rating	;: (rate 6 pt.			
		scale)				
		Outco	ome 3			
		Achier	vement			
		Kating	;: (rate 6 pt.			
		scale)				
Des	la at	Etc.				
Pro	lect	(rate 6	pt. scale)			
1111p	doptive					
Ма	haptive					
Sus	tainability	(rate 4	nt scale)			
#	Deliverable	(inte i	Description	1	Timing	Responsibilities
1	MTR Incepti	on	MTR team cla	rifies	No later than 2	MTR team submits to the
	Report	-	objectives and	methods of	weeks before the	Commissioning Unit and
	1		Midterm Revie	ew	MTR mission: 15	project management
					August 2019	
2	Presentation		Initial Finding	s	End of MTR	MTR Team presents to
					mission: 6 September	project management and
					2019	the Commissioning Unit
3	Draft Final R	eport	Full report (us	ing guidelines	Within 3 weeks of	Sent to the
			on content ou	tlined in	the second MTR	Commissioning Unit,
			Annex B) with	n annexes	mission: 14 October	reviewed by RTA, Project
					2019	Coordinating Unit, GEF
						OFP
4	Final Report*	k	Revised report	t with audit	Within 1 week of	Sent to the
			trail detailing h	now all	receiving UNDP	Commissioning Unit
			received comm	nents have	comments on draft:	
			(and have not)	been	15 December 2019	
			addressed in th	he tinal MTR		
			report			

Table. MTR Ratings & Achievement Summary Table for (Project Title)

*The final MTR report must be in English. If applicable, the Commissioning Unit may choose to arrange for a translation of the report into a language more widely shared by national stakeholders.

E. Institutional Arrangement

The principal responsibility for managing this MTR resides with the Commissioning Unit. The Commissioning Unit for this project's MTR is *the UNDP Country Office*.

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

F. Duration of the Work

The total duration of the MTR will be approximately 25 days) over a time period of *five months* starting 1 August 2019, and shall not exceed five months from when the international consultant is hired. The tentative MTR timeframe is as follows:

TIMEFRAME	ACTIVITY
26 July 2019	Application closes
8 August 2019	Select MTR Team
14 August 2019	Prep the MTR Team (handover of Project Documents)
14 August – 23 August 2019 (2	Document review and preparing MTR Inception Report
days)	
28 August 2019 (1 days)	Finalization and Validation of MTR Inception Report- latest start of
	MTR mission
2 September – 6 September 2019 (7	MTR mission #1: stakeholder meetings, interviews, field visits
days)	
6 September 2019	Mission wrap-up meeting & presentation of initial findings- earliest
	end of MTR mission
9 September – 30 September 2019	Preparing draft report
days (8 days)	
7 October – 11 October 2019 (4	MTR mission #2: stakeholder meetings, interviews, field visits
days)	
14 October – 4 November 2019 (3	Incorporating audit trail from feedback on draft report/Finalization of
days)	MTR report (note: accommodate time delay in dates for circulation
	and review of the draft report)
15 November 2019	Preparation & Issue of Management Response
15 December 2019	Expected date of full MTR completion

The date start of contract is 1 August 2019.

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

G. Duty Station

Duty station is home based, with at least one mission to Serbia. During the mission in Serbia MTR team will visit at least two sites as provided in the Inception Report.

REQUIRED SKILLS AND EXPERIENCE

H. Qualifications of the Applicant Skills and Competencies

• Excellent analytical skills;

- Displays ability to synthesize research and reach empirically based conclusions on related subject;
- Strong writing skills;
- Proven capacity to produce reports;
- Displays capacity to provide experienced advice on best practices;
- Possesses knowledge of inter-disciplinary development issues;
- Focuses on result for the client and responds positively to feedback;
- Good application of Results-Based Management;
- Good communication, coordination and facilitation skills;
- Consistently ensures timeliness and quality of work;
- Displays cultural, gender, religion, race, nationality and age sensitivity and adaptability;
- Demonstrates integrity by modeling ethical standards.

Qualifications and Experience

Education:

• Advanced University degree in the fields relevant for the assignment engineering/environment/economy.

Work experience:

- a. Minimum 10 years of relevant professional experience, preferably in international/multilateral development context;
- b. Proven expert knowledge of available multilateral environmental funds (GEF, GCF, AF, etc.) project cycle.
- c. Proven experience in developing/implementing climate change projects preferably in the region
- d. Previous experience in project evaluation methodologies;
- e. Previous successful experience in the development and approval of multilateral environmental funds projects would be an asset;
- f. Previous experience with UNDP is a great advantage;
- g. Experience of work in the region is an asset;
- h. Previous assignments in the role of relevant senior expert positions would be considered as an asset.

Knowledge

• Knowledge of UNDP, evaluation policy, norms and standards;

• Knowledge of IPCC Methodologies, Guidelines, UNFCCC documents and the EU legislation and Sendai Framework;

Personal qualifications

- Ability to deliver when working under pressure and within changing circumstances;
- Consistently approaches work with energy and a positive, constructive attitude;
- Excellent interpersonal skills.

Language:

• Excellent English writing skills are essential;

Knowledge of Serbian/Croatian/Bosnian/Montenegrin language(s) shall be considered as an asset.

APPLICATION PROCESS

I. Scope of Price Proposal and Schedule of Payments

Financial Proposal:

- Financial proposals must be "all inclusive" and expressed in a lump-sum for the total duration of the contract. The term "all inclusive" implies all cost (professional fees, travel costs, living allowances etc.);
- The lump sum is fixed regardless of changes in the cost components.

Schedule of Payments:

10% of payment upon approval of the MTR Inception Report30% upon submission of the draft MTR Report60% upon finalization of the MTR Report

J. Recommended Presentation of Offer

- a) Completed Letter of Confirmation of Interest and Availability using the <u>template</u> provided by UNDP;
- b) **Personal CV or a <u>P11 Personal History form</u>**, indicating all past experience from similar projects, as well as the contact details (email and telephone number) of the Candidate and at least three (3) professional references;
- c) **Brief description of approach to work/technical proposal** of why the individual considers him/herself as the most suitable for the assignment, and a proposed methodology on how they will approach and complete the assignment; (max 1 page)
- d) Financial Proposal that indicates the all-inclusive fixed total contract price, supported by a breakdown of costs, as per template provided. If an applicant is employed by an organization/company/institution, and he/she expects his/her employer to charge a management fee in the process of releasing him/her to UNDP under Reimbursable Loan Agreement (RLA), the applicant must indicate at this point, and ensure that all such costs are duly incorporated in the financial proposal submitted to UNDP. See Letter of Confirmation of Interest template for financial proposal template.

Incomplete applications will be excluded from further consideration.

K. Criteria for Selection of the Best Offer

The award of the contract will be made to the Individual Consultant who has obtained the highest Combined Score and has accepted UNDP's General Terms and Conditions. Only those applications which are responsive and compliant will be evaluated. The offers will be evaluated using the "Combined Scoring method" where:

- a) The educational background and experience on similar assignments will be weighted a max. of 70%;
- b) The price proposal will weigh as 30% of the total scoring.

6.2 MTR evaluative matrix (evaluation criteria with key questions, indicators, sources of data, and methodology)

Evaluative Questions	Indicators	Sources	Method	Comment
Project Strategy				
Project design				
What is the problem addressed by the project and what are the underlying assumptions? Is it clear? Have any incorrect assumptions or changes to the context affected the project results as outlined in the project document?	Clear and coherent descriptions	Approval documents, minutes of PB meetings	LR, I	
Is the project relevant? Does the project strategy provide the most effective route towards expected/intended results? Were lessons from other relevant projects properly incorporated into the project design?	Alignment to national/stakeholder priorities, clear and coherent descriptions	Approval documents	LR, I	
Does the project address country priorities? Is there country ownership? Is the project concept in line with the national sector development priorities and plans?	Alignment to national/stakeholder priorities, evidence of engagement and commitment, evidence of consultation	Approval documents	LR, I	
What are the decision-making processes? Were perspectives of those who would be affected by project decisions, those who could affect the outcomes, and those who could contribute information or other resources to the process, taken into account during project design processes?	Evidence of clear, logical and consultative planning processes and decision-making in the project	Stakeholders. PB members and minutes. Project management reports.		
Were gender aspects raised in project design? Are gender aspect being monitored effectively?	Evidence of gender aspects being raised in project design and being monitored	Approval documents, project reports, stakeholders	LR, I	
Are there major areas of concern, recommended areas for improvement?	Concerns and recommendations raised	Stakeholders	1	
Results Framework/Logframe				
Is the project's logframe, indicators and targets clear and logical? How "SMART" are the midterm and end-of-project targets are (Specific, Measurable, Attainable, Relevant, Time-bound)?	Clear and logical framework, SMART indicators	Approval documents	LR, backed up by I	
Are the project's objectives and outcomes or components clear, practical, and feasible within its time frame?	Clear and logical and realistic project strategy and implementation framework	Approval documents	LR, backed up by I	
Can progress so far or future progress catalyse beneficial development effects that should be included in the project results framework and be monitored?	Beneficial development effects identified	Stakeholders	I	
Progress Towards Results		-		
What is progress of the log-frame indicators towards the end-of- project targets using 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 each outcome; make recommendations from the areas marked as "High risk of not being	Use of project indicators (assuming they are 'SMART'), evidence of actual impact	Project reports, consultations with project management	LR, I	

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achieved" (red).				
How does the GEF Tracking Tool at the baseline compare to the one completed right before the MTR?	Indicators in tracking tool	GEF Tracking tool at Baseline and before MTR	LR	
Are there barriers remaining to achieving the project objective in the remainder of the project?	Remaining barriers	Stakeholders, project reports, approval documents	LR, I	
How can successful aspects of the project be further expanded?	Successful aspects	Project reports, stakeholders	LR, I	
Project Implementation and Adaptive Management				
Management Arrangements	I	1		
How is overall effectiveness of project management? Have changes been made and are they effective? Are responsibilities and reporting lines clear? Is decision-making transparent and undertaken in a timely manner? What are recommended areas for improvement?				
What is the quality of execution of the Executing Agency/Implementing Partner(s)? What are recommended areas for improvement?				
What is the quality of support provided by the GEF Partner Agency (UNDP)? What are recommended areas for improvement?				
Work Planning				
Have there been delays in project start-up and implementation? What are the causes? What are proposed solutions?	Evidence of meeting time targets	Approval documents, progress reports, project management	LR, I	
Is work-planning results-based?	Evidence of logical, transparent and results oriented planning process	Progress reports, project management		
Has the project document logical/results framework been used as a management tool and have there been any changes since project start? (Ensure any revisions meet UNDP-GEF requirements and assess the impact of the revised approach on project management).	Evidence of logical and transparent planning process, using adaptive management	Approval documents, progress reports	LR, I	
Finance and co-finance				
How is the financial management of the project, with specific reference to the cost-effectiveness of interventions	Evidence of clear, transparent reporting, evidence of cost effective processes and purchases	Financial reports, project reports	LR, backed by I	
Have there been changes to fund allocations as a result of budget revisions? How were these decided? Have they been appropriate and relevant?	Evidence of reallocation based on clear, logical transparent decision processes	Project reports, budgets	LR, backed by I	
Does the project have the appropriate financial controls, including reporting and planning, that allow management to make informed decisions regarding the budget and allowed for timely flow of funds?	Evidence of effective financial controls and management	Project reports, financial reports	LR, backed by I	
Is the co-financing mobilized efficiently? Is co-financing being used strategically to help the objectives of the project? Are project teams meeting with all co-financing partners regularly in order to align financing priorities and annual work plans?	Evidence that co-financing is in line with approval documents, evidence of monitoring of co-financing, evidence of co- financers involvement/engagement in project.	Co-financing report, project reports	LR, I	
Project-level Monitoring and Evaluation Systems				
Do monitoring tools provide the necessary information? Do they	Evidence of efficient and cost-effective	Approval documents,	LR, I	

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involve key partners? Are they aligned or mainstreamed with national systems? Do they use existing information? Are they efficient? Are they cost-effective? Are additional tools required? How could they be made more participatory and inclusive?	monitoring	project reports	
Are sufficient financial resources being allocated to monitoring and evaluation? Are these resources being allocated effectively?	Budget used for monitoring	Project reports	LR, I
Reporting			
Have adaptive management changes been reported by the project management and shared with the Project Board? How are planning and management decision taken?	Evidence that monitoring is actively and effectively supporting project planning and decision-making, with appropriate role of all stakeholders.	Project reports, project management	LR, I
How well has the Project Team and partners fulfilled GEF reporting requirements (i.e. how have they addressed poorly-rated PIRs, if applicable?)	Meeting reporting requirements	Project reports	LR
Have any lessons derived from the adaptive management process been documented and shared with key partners and internalized by partners?	Evidence of this happening	Project reports, project management	LR, I
Stakeholder Engagement			
Project management: Has the project developed and leveraged the necessary and appropriate partnerships with direct and tangential stakeholders?	Evidence of interaction with stakeholders	Project reports, stakeholders	LR, I
Participation and country-driven processes: Do local and national government stakeholders support the objectives of the project? Do they continue to have an active role in project decision-making that supports efficient and effective project implementation?	Evidence of active participation of stakeholders	Project reports, stakeholders	LR, I
Participation and public awareness: To what extent has stakeholder involvement and public awareness contributed to the progress towards achievement of project objectives?	Contribution of stakeholder involvement and public awareness toward project progress	Project reports, stakeholders	LR, I
Communications			
Internal project communication with stakeholders: Is communication regular and effective? Are key stakeholders left out of communication? Are feedback mechanisms for communication? Does this communication with stakeholders contribute to their awareness of project outcomes and activities and long-term investment in the sustainability of project results?	Evidence of internal communication and of it being strategic, effective and efficient	Project reports, project stakeholders, project management	LR, I
External project communication: Are proper means of communication established or being established to express to the public the project progress and intended impact (is there a project website for example)? Did the project implement appropriate outreach and public awareness campaigns?	Evidence of external communication and of it being strategic, effective and efficient	Project outputs, projects materials and media, project reports.	LR, I
Overall, is the project management effective? Have changes been made and are they effective? Are responsibilities and reporting lines clear? Is decision-making transparent and undertaken in a timely manner?	Evidence of clear, fair decision-making processes and results, evidence of participation from stakeholders and co- financiers.	Project plans, project reports, project stakeholders, project management	LR, I
Sustainability		Drois et en pressel	
Are the risks identified in the Project Document, the most important	Useruiness of risk analysis and associated	Project approval	LK,
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and are the risk ratings applied appropriate and up to date?	tools	documents and reports	backed by I
Overall, how is risk management of sustainability factors - in terms of risks to motivations, capacity, and resources? Does the project have sustainability benchmarks built into the project cycle?			LŔ, I
Financial Sustainability: What is the likelihood of financial and economic resources not being available once the GEF assistance ends (consider potential resources can be from multiple sources, such as the public and private sectors, income generating activities, and other funding that will be adequate financial resources for sustaining project's outcomes)?	Evidence that an assessment of options has been undertaken/is planned, and that a complete and realistic upscaling or exit strategy exists or is being prepared.	Project reports, budget reports, minutes of project board	LR, I
Socio-political Sustainability: Are there any social or political risks that may jeopardize sustainability of project outcomes? What is the risk that the level of stakeholder ownership (including ownership by governments and other key stakeholders) will be insufficient to allow for the project outcomes/benefits to be sustained? Do the various key stakeholders see that it is in their interest that the project benefits continue to flow? Is there sufficient public / stakeholder awareness in support of the long term objectives of the project? Are the lessons learned are being documented by the project team on a continual basis and shared/ transferred to appropriate parties who could learn from the project and potentially replicate and/or scale it in the future?	Evidence that socio-political risks to sustainability have been assessed and any mitigation measures taken.	Project reports, budget reports, minutes of project board, project management	LR, I
Institutional and Governance Sustainability: Do the legal frameworks, policies, governance structures and processes pose risks that may jeopardize sustenance of project benefits? While assessing this parameter, also consider if the required systems/ mechanisms for accountability, transparency, and technical knowledge transfer are in place	Evidence that institutional/governance risks to sustainability have been assessed, that a full consultation process has taken place/is planned, that potential mitigation measures have been identified/are planned, and that a clear strategy for ensuring sustainability is in place/under preparation	Project reports, budget reports, minutes of project board, project management	LR, I
Environmental Sustainability: Are there any environmental risks that may jeopardize sustenance of project outcomes? The MTR should assess whether	Evidence that any environmental risks to sustainability have been assessed and any mitigation measures taken.	Project reports, budget reports, minutes of project board, project management	LR, I

6.3 Ratings Scales

Ra	atings for Progress Tov	wards Results: (one rating for each outcome and for the objective)
6	Highly Satisfactory (HS)	The objective/outcome is expected to achieve or exceed all its end-of-project targets, without major shortcomings. The progress towards the objective/outcome can be presented as "good practice".
5	Satisfactory (S)	The objective/outcome is expected to achieve most of its end-of-project targets, with only minor shortcomings.
4	Moderately Satisfactory (MS)	The objective/outcome is expected to achieve most of its end-of-project targets but with significant shortcomings.
3	Moderately Unsatisfactory (HU)	The objective/outcome is expected to achieve its end-of-project targets with major shortcomings.
2	Unsatisfactory (U)	The objective/outcome is expected not to achieve most of its end-of-project targets.
1	Highly Unsatisfactory (HU)	The objective/outcome has failed to achieve its midterm targets, and is not expected to achieve any of its end-of-project targets.

Ra	tings for Project Imple	ementation & Adaptive Management: (one overall rating)
6	Highly Satisfactory (HS)	Implementation of all seven components – management arrangements, work planning, finance and co- finance, project-level monitoring and evaluation systems, stakeholder engagement, reporting, and communications – is leading to efficient and effective project implementation and adaptive management. The project can be presented as "good practice".
5	Satisfactory (S)	Implementation of most of the seven components is leading to efficient and effective project implementation and adaptive management except for only few that are subject to remedial action.
4	Moderately Satisfactory (MS)	Implementation of some of the seven components is leading to efficient and effective project implementation and adaptive management, with some components requiring remedial action.
3	Moderately Unsatisfactory (MU)	Implementation of some of the seven components is not leading to efficient and effective project implementation and adaptive, with most components requiring remedial action.
2	Unsatisfactory (U)	Implementation of most of the seven components is not leading to efficient and effective project implementation and adaptive management.
1	Highly Unsatisfactory (HU)	Implementation of none of the seven components is leading to efficient and effective project implementation and adaptive management.

Ra	tings for Sustainability	y: (one overall rating)
4	Likely (L)	Negligible risks to sustainability, with key outcomes on track to be achieved by the project's closure and expected to continue into the foreseeable future
3	Moderately Likely (ML)	Moderate risks, but expectations that at least some outcomes will be sustained due to the progress towards results on outcomes at the Midterm Review
2	Moderately Unlikely (MU)	Significant risk that key outcomes will not carry on after project closure, although some outputs and activities should carry on
1	Unlikely (U)	Severe risks that project outcomes as well as key outputs will not be sustained

6.4 MTR mission itinerary

MTR mission (2-6 September 2019)

Day 1 - Monday 2 September

Time:	Activity:	Participants:	Venue:
10:00 –	Mission opening meeting	Miroslav Tadic UNDP	UN House
11:30		Portfolio Manager	Bulevar Zorana
		Ana Seke, CSUD project	Djindjica 64,
		coordinator	Belgrade
11:30 –	Meeting with UNDP representatives	Francine Pickup, RR	UN House
12:30		UNDP Serbia	Bulevar Zorana
			Djindjica 64,
			Belgrade
12:30 –	Lunch		
13:30			

13:30	—	Meeting with representatives of the	NPD Jasmina Jovic	UN House	
14:30		Ministry of environmental protection	Dragana Radulovic,	Bulevar	Zorana
			Climate Change Group,	Djindjica	64,
			Ministry of Environmental	Belgrade	
			Protection	-	
15:00	-	Meeting with former NPD	Darinka Radojevic	Vlajkoviceva	10,
16:00			-	Belgrade	
16:00	-	Wrap-up day 1			
17:00					

Day 2 - Tuesday 3 September

Time:	Activity:	Participants:	Venue:
9:30 -	Meeting with representative of	Mile Gluscevic	UN House
10:30	Standing Conference of Towns and		Bulevar Zorana
	Municipalities		Djindjica 64,
			Belgrade
11:30 –	Serbian Innovation Fund	Dane Atanackovic	UN House
12:30			Bulevar Zorana
			Djindjica 64,
			Belgrade
12:30 –	Lunch		
13:30			
13:30 –	Meeting with representative of local	Slobodan Jerotic (Sabac)	UN House
14:30	self-governments	Djordje Antic (Nis)	Bulevar Zorana
		Ana Radojevic	Djindjica 64,
		(Kragujevac)	Belgrade

Day 3 - Wednesday 4 September

Time:	Activity:	Participants:	Venue:
8:00 – 17:00	Site visit Company GreenEnergy Point, Boljevac		Izvorski put bb, Boljevac
17:00	Company Jugo-Impex E.E.R. Ltd Nis		Cara Konstantina bb, Niš

Day 4 – Thursday 5 September

Time:	Activity:	Participants:	Venue:
11:00 –	Meeting with representative of Serbian	Isabel Airas (Climate-	Chamber of
12:00	Chamber of Commerce and Industry	KIC)	Commerce and
			13-15, Belgrade
13:00 –	GIZ (Deutsche Gesellschaft für	Marija Bogdanovic, Head	Ilije Garasanina 4
13:30	Internationale Zusammenarbeit (GIZ)	of projects	Belgrade
	GmbH		
14:00-	Lunch		
15:00			
16:00 -	SIDA	Ida Reuterswärd, First	UN House
17:00		Secretary	Bulevar Zorana
		Swedish Embassy	Djindjica 64,
			Belgrade

Day 5 – Friday 6 September

Time:	Activity:	Participants:	Venue:
9.00 -	EU Delegation to Serbia	Antoine Avignon,	UN House
9:30		Programme Manager	Bulevar Zorana
		Environment	Djindjica 64,
			Belgrade
9:30 –	Mission wrap-up meeting &	RR	UN House
10:00	presentation of initial findings		Bulevar Zorana
			Djindjica 64,
			Belgrade
10:00 –	Meeting with CSUD project team	Project Manager	UN House
11:00		Project Coordinator	Bulevar Zorana
			Djindjica 64,
			Belgrade

6.5 List of persons interviewed

Isabel Airas	Climate-KIC
Djordje Antic	City of Nis
Dane Atanackovic	Serbian Innovation Fund
Antoine Avignon	EU Delegation to Serbia
Marija Bogdanovic	GIZ
Bojan Gligic	Esotron
Jasmina Jovic	NPD, Ministry of Environmental Protection
Vesa Rutanen	Consultant
Mile Gluscevic	Standing Conference of Towns and Municipalities
Slobodan Jerotic	City of Sabac
John O'Brien	UNDP Regional Technical Advisor
Zarko Petrovic	UNDP Portfolio Analyst
Zoran Petrovic	Sanicula
Francine Pickup	RR UNDP Serbia
Ana Radojevic	Kragujevac municipality
Darinka Radojevic	Former NPD, Ministry of Environmental Protection
Dragana Radulovic	Climate Change Group, Ministry of Environmental Protection
Ida Reuterswärd	Swedish Embassy
Ana Seke	CSUD project coordinator
Mladen Stojadinovic	Green Energy Point
Miroslav Tadic	UNDP Portfolio Manager

6.6 List of documents reviewed

In alphabetical order

Document	Document type
Brochure Innovation Challenge	Pdf
Brochure InnovativeSolutionsAndBUsinessModels_Pitching Event	Pdf
Brochure Open Data Challenge	Pdf
CSUD OPEN DATA CHALLENGE application guide	Pdf
CSUD INNOVATION CHALLENGE Application guide	Pdf
CSUD LPAC Minutes of Meeting	Pdf
CSUD additional letters of cooperation_02 12 2016	Pdf

CSUD Co Financing Letters_02 12 2016	Pdf	
Inception Report CSUD sept 2017 fin clean	Word	
Media Coverage Report CSUD Activities July 2018-June 2019	Pdf	
Minutes Inception Meeting	Pdf	
PIR 2018	Word	
PIR 2019	Word	
Project Board_MoM_CSUD_11Dec2018 final	Word	
Project Board_MoM_CSUD_14Dec2017	Word	
PIMS 5551 - Serbia CSUD ProDocLoA_signed	Pdf	
PIMS5551 Serbia CSUD PIF Dec 21 2015 clean	Word	
Project Board MoM PBA 15 April 2019 final	Word	
UNW gender analysis mid-term report FIN	Pdf	
SANICULA GHG calculation	Word	
Performance Based Contracts for 5 pilot projects	Pdf	
UNDP Monthly Report - November Open Data A Gluscevic	Pdf	

6.7 Signed UNEG Code of Conduct form

Evaluators/Consultants:

- 1. Must present information that is complete and fair in its assessment of strengths and weaknesses so that decisions or actions taken are well founded.
- 2. Must disclose the full set of evaluation findings along with information on their limitations and have this accessible to all affected by the evaluation with expressed legal rights to receive results.
- 3. Should protect the anonymity and confidentiality of individual informants. They should provide maximum notice, minimize demands on time, and respect people's right not to engage. Evaluators must respect people's right to provide information in confidence, and must ensure that sensitive information cannot be traced to its source. Evaluators are not expected to evaluate individuals, and must balance an evaluation of management functions with this general principle.
- 4. Sometimes uncover evidence of wrongdoing while conducting evaluations. Such cases must be reported discreetly to the appropriate investigative body. Evaluators should consult with other relevant oversight entities when there is any doubt about if and how issues should be reported.
- 5. Should be sensitive to beliefs, manners and customs and act with integrity and honesty in their relations with all stakeholders. In line with the UN Universal Declaration of Human Rights, evaluators must be sensitive to and address issues of discrimination and gender equality. They should avoid offending the dignity and self-respect of those persons with whom they come in contact in the course of the evaluation. Knowing that evaluation might negatively affect the interests of some stakeholders, evaluators should conduct the evaluation and communicate its purpose and results in a way that clearly respects the stakeholders' dignity and self-worth.
- 6. Are responsible for their performance and their product(s). They are responsible for the clear, accurate and fair written and/or oral presentation of study limitations, findings and recommendations.
- 7. Should reflect sound accounting procedures and be prudent in using the resources of the evaluation.

MTR Consultant Agreement Form

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

Name of Consultant: Manfred Stockmayer_

Name of Consultancy Organization (where relevant):

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

Signed at Wiener Neustadt_____

_____ (Place) on 11 December 2019___

(Date) Signature:

6.8 Signed MTR final report clearance form

Midterm Review Report Reviewed and Cleared By: Commissioning Unit				
Name:	Zarko Petrovic, Programme Analyst	Date: 20 April 2020		
Signature:	Earleo Petrovie	Date:		
UNDP-GEF Regional Technical Advisor				
Name:	John O'Brian	Date: 20 April 2020		
Signature	John akin	Date:		

6.9 Audit Trail

The following table lists the comments received from the Regional Technical Advisor (RTA) and the UNDP Country Office in Serbia (CO) as well as the responses from the MTR Team.

Author	Comm . No.	Comment/Feedback on the draft MTR report	MTR team response and actions taken
RTA	1	Provide email addresses, if possible.	Email addresses added
RTA	2	Revise the date please	Date revised
CO	3	ProDoc was signed on 21 February 2017	Date revised
СО	4	No advance payments – this is the rule of PBP type of agreement	Wording revised
CO	5	Please see comment below – where we think that private sector funds should be fully reflected and recognized.	Comment rejected, see comment no 8 and the response
СО	6	If below comments are acknowledged, at least conditionally and/or with recommendations for improvements), than we can claim contribution of the other two projects to the overall GHG emission reduction targets of the CSUD project.	Comment rejected, see comment no 8 and the response
RTA	7	Please clarify a bit more.	Wording added
СО	8	We presume this is related to Green Energy Point project. As mentioned during the interviews, we believe that this particular project is an excellent example of larger-scale private sector engagement into development efforts. Also, it is an excellent example how one BAU project can turn innovative. It can be easily compared to some of the projects that boosted market of biomass in Serbia (another UNDP/GEF funded project) which also mobilized private capital in the same/larger proportion. Moreover, this is the first wood biomass project in Serbia with an installed capacity of 1,94 MWh for production of electricity and heat. The way the Energy Point implemented their project still differs from the way it would have been implemented without the GEF co- financing grant – an innovative business model was applied, new supply line of woody biomass from waste wood from the Hydropower system "Djerdap", new plans for	All of the responses provided show that this is an innovative project and the contribution of UNDP increased the quality of the project. However, none of the arguments brought forward reflect the main concerns of additionality: 1. The timelines don't match and the project was already under construction when the application was made (and long before the PBP contract was signed). 2. The share of funding is much too small to argue the project was additional. Therefore, there is no change in the evaluation of additionality. I have added another para to reflect the discussions and point out the positive work of UNDP.

		introducing solar energy, electric trucks etc. As the matter of fact, Energy Point is among the first companies that signed the PBP type of agreements globally – it represents one of the first steps in mobilizing private sector investments into climate related innovative businesses. So, although we recognize that this particular project can not claim 100% of the innovative GHG emission reduction, we believe the MTR should reflect certain percentage of the value of this particular project to the achievement of the overall CSUD project goal. Also, this refers to additionality.	
RTA	10	What about another bullet point to discuss the work of the international CTA and how it has been helpful or not?	Wording added
СО	11	The level of contribution was assessed based on the overall co-financing potentials of each of the projects, following initially set criteria. Similar approach was applied as in the case of similar UNDP/GEF projects. This can be perceived from the perspective of contribution of the private sector to the CSUD project and its overall goals. Again, this is, a good example (among the first of this kind in Serbia) of onboarding the private sector into development goals - in particular climate related ones - following available UNDP methodologies and tools for cooperation with the private sector. This should be recognized.	The cooperation with the private sector is important and is helping in achieving development goals. However, the biomass project would have been implemented without CSUD, this is very clear from the timelines. The project started construction BEFORE applying for the PBP and long before the PBP agreement was signed.
RTA	13	Under each recommendation, I suggest to add who: when: how:	Information added to each recommendation
RTA	14	What about considering one recommendation on performance based payments? (i.e – lessons should be learned from this approach and applied to other projects as part of a lessons learned study at the end of the project?)	Recommendation is added
RTA	17	Mention amount please.	
CO	22	This is already envisaged and done through the initiation of the process of development of the Climate Smart Information System – it will ensure sustainability of the data collection, opening and management throughout the project implementation and beyond. By the official letter, the	Noted

		Ministry of Environmental Protection has confirmed that it will take over the maintenance and management of the system upon the project completion. We can insert this in the management response.	
RTA	23	Very important to mention GEF methodology	Wording added
CO	24	This process was already underway during the MTR process. Recalculations for each of the 5 projects under implementation are indicating that their potentials in terms of GHG emissions reduction are significant (even higher than anticipated in the initial review). The recalculation was performed by the professors of the Faculty of Mechanical Engineering. It is, however, impossible, to claim that such reductions will be achieved, as all 5 projects under implementation still have 1.5 years before completion. On the other hand, it is also difficult to claim such high risks at this point in time. The project will, however, take all necessary steps to alleviate such risks.	My conclusion from the result I have seen (calculations on Sanicula) are 2 points: 1. There are considerable improvements in the quality of the calculations necessary to clearly define baseline, project and additionality. 2. Information provided by the companies needs to be critically checked for plausibility. A good part of the information given is used to project outputs, demand etc. These data sets need to be critically reviewed and monitored.
CO	26	Please see the above comment of relevance to this particular project.	See response on comment #8.
RTA	27	Can you please add some thoughts on how to make the open data challenge sustainable? Please clarify how you would do this.	This is explained in the 2 paras below.
RTA	30	So can one of the recommendations be to strengthen the definition of additionality.	Covered by recommendation #4.
CO	34	This is true. However, the increase of capacities in production for some of the projects are expected to happen already during the CSUD project implementation timeframe – such as, for example, in the case of Sanicula s.r.l. In the initial project proposal, the Company owned 150 ha Due to co- financing a new production process (production of pellet), the company has decided to buy an additional 150ha for organic medicinal herbs production in March 2019. Until the spring 2021 plantations will be on all 300ha. Can you consider a recommendation	It is great that there is a good perspective and companies are enthusiastic. However, please read in detail the calculations in section 4.2.1 which explains that the current capacity needs to be increased 6 (!!) times, leading to a 3-shift (!!) operation. I am not saying that this is not possible, but it is challenging.
DTA	27	about performance based payments. See my earlier comment on this?	Pagammandation addad
RIA	31		

		recommendation about a possible project extension up to 12 months, if it is needed and if you support this and under what conditions?	
RTA	38	I suggest to have a paragraph with your views about the project design and strategy. Was the project well designed or not? What, in your view, could have been done differently or improved?	This is covered in section 4
RTA	40	Can you please make some comments about whether this arrangement has worked well or not, in your view.	This is covered in section 4
RTA	42	Can you say 1 or 2 sentences about the company and what it does etc ?	Wording added.
CO	45	Through the application process only indicative information was requested. Throughout the incubation/acceleration process, further work with the selected companies was conducted that led to the refinement of targets for each of the applicants. With that regard, the adjustments to construction and electrical works have been refined as the company Jugo- impex EER has, due to a plan to increase production of Polyurethane foams, corrected its order to a total annual capacity of 1300t (instead of the earlier 800t). Thus, after all changes, the analysis of direct reduction of GHG emissions remained as foreseen by the project i.e. the difference between the initial state and the future new is 800 t of processed pur foam and the annual elimination of 10t of gas mixture, the GHG emission reduction will be 16 525 tCO2 eq / year So, before the project, Jugo-impex EER processed refrigerators with a total amount of Polyurethane foams of 500t, and in the next two years it will increase the processing up to 1300t - this will contribute to solving a huge problem related to final disposal of Polyurethane foams in Serbia (at the moment there is not such sustainable aclutice)	I have added wording that GHG calculations should be revisited by the M&E consultant. During the site visit, the company stated a planned capacity of 500t, business plan says 800t. 1,300 tons were not mentioned. When the baseline is prepared, it needs to be investigated what would have happened with the fridges otherwise. Would Jugo- Impex have dismantled them, extracted the freon and landfilled the foam, then there would be no additional GHG emission reduction. Would they have been dismantled by a different company? No GHG. Would they have been dumped illegally and are extracted in the project? Then GHG emissions are generated.
СО	48	solution). The additionality was perceived against previously implemented UNDP/GEF projects	I am not sure what the comment really means, but there is very strong indication both based on the timeline and the share of
			funding from UNDP that the project would have happened anyway.

			Wording added to acknowledge the positive
RTA	51	Can you number each table? Is this	Number added.
	0.	Table 1? Please add.	
RTA	52	Can you add two columns with GEF	Columns added.
		grant amount and co-financing amount	
RTA	53	AISO? What was discussed/achieved Please	Wording added
NIA -	00	clarify.	
CO	53	What was discussed/achieved. Please clarify. While confirming the gap in co- financing on the side of the Government, it is still important to reflect significant resources mobilized from the private sector. We should recall the fact that this is one of the first projects that is establishing direct cooperation with the private sector and mobilize private capital in attaining the innovative ways of GHG emission reduction. If comments on Green Energy Point are recognized, it would mean that, although having gaps in Government co-financing, the project has successfully succeeded to mobilize additional funding of the private sector. This would, to certain extent compensate the shortages in public funds expenditures towards the project. If we do not reflect this, we are of the concern that this may affect private sector contribution towards other similar initiatives and diminish their interest in contributing to similar development goals. The Innovation Awards and PBP	 Wording added. It is clearly mentioned in the conclusions that the involvement of the private sector is a major achievement. Wording is revised to recognise the private sector contribution in co-financing. The lack of cash financing from MoEP is the biggest risk for the project. If that money is not provided, there will be no further co- financing of the private sector, as the contribution from UNDP/government cannot be made. The project proved that co- financing by the private sector is not an issue once cash support is available. The wording in this MTR should help UNDP and the Project Team to push the MoEP to provide the cash funding committed during the project preparation phase. Wording has been added earlier to recognize the good work delivered by the Project Team/incubator in the Green Energy Point project. As such, the project has a good contribution to the overall success of the CSUD project. However,
		Agreements are some of the unique ways of private sector involvement and for mobilizing private capital for achieving global development goals. It is evident that CSUD project managed to raise significant interest of the private sector and that their involvement was going far beyond co- financing grants – they are regularly participating in the activities of the CSUD project incubator/accelerator, consultations with the expert teams and mentors, public events etc. Also, they have further refined and developed their projects/business cases in line with the recommendations of the team of mentors so that they can further claim innovations. The way each of the 5 projects are being implemented in far	both the timeline of funding provided to Green Energy Point through the PBP contract (construction started long before the contract was signed) and share of financing (1.8% of total costs) clearly prove that the project is not additional and the core of the project CSUD is claiming credits for (the biomass CHP) would have happened anywa. I have mentioned this already strongly during our meetings and think it would even be a mistake to claim that a 170k contribution could leverage an investment of 10million. This would be a totally wrong signal.

		different after the incubation/acceleration process than initially planned. Thus, we think that all 5 projects have managed to comply with the CSUD project criteria and expected goals, thus being fully qualified for co-financing. In such way, private sector capital is attributing directly to the achievement of the CSUD project goals and should, in our view, be recognized under the co- financing indicator.	
CO	56	The Green Energy Point – as per the comment above. It is also important to acknowledge the very essence of the CSUD project, which is to equally boost innovation and result in GHG emissions reduction. While on the other hand, the type of innovation was not strictly pre-defined. For this reason, the CSUD project team has also decided to work with the private sector and assist in turning some BAU projects into climate innovative projects – in this way it was showcased that some of the classical projects can also contribute to GHG emission reduction and become innovative in case they apply some new methods and tweak their business approaches. Otherwise, if projects such as Green Energy Point would not have been included, the CSUD project would end up in sending a wrong message to non-traditional partners (in particular the private sector) that only innovative technologies and scientific research projects can qualify for climate innovation. This would also leave a huge group of potential partners out of the scope of the project targets.	The projects accounted for in the GHG emission reduction calculation lead to overachieving the MTR target, which is a satisfactory achievement, as mentioned in the text. It was good to include the Green Energy Project and to provide the support given. This increased the quality of implementation, contributed to sustainable development and opened a potential for further contributions in the future. As such, the project fulfils the requirement of the CSUD project and contributes to targets. However, GHG and co-financing are clearly not additional. Moreover, it was confirmed by Vesa that the GHG target was set at a very low level (MTR target is only 1,000t/a, end of project target is only 5,000t/a).
RTA	58	You are supposed to discuss variance between what was spent and what was planned in the project document. Can you please do so and add a paragraph on this. You have the figures but you do not discuss any variances.	Wording added.
RTA	60	The table is good but it would be helpful to discuss why the co-financing did not materialize in each case and what steps are being taken to fix this matter. You mention the Ministry of Environmental Protection co-financing and indeed this is your first	Wording added in the recommendations.

		recommendation. What about discussing the other co-financing sources that have failed to materialize?	
CO	62	If previous comments on Green Energy Point are acknowledged, than it should than be reflected in the table	Comment rejected, based on argumentation given in other comments.