



## Terminal Evaluation Report

### Moldova Sustainable Green Cities – Catalyzing Investment in Sustainable Green Cities in the Republic of Moldova Using a Holistic Integrated Urban Planning Approach

GEF Project ID:	9042
Focal Area:	Climate Change
UNDP Project PIMS:	5492
Country:	Moldova
Region:	Europe and Central Asia
Executing Agency:	Chişinău municipality
Implementing Agency:	UNDP
Other Partners:	Ministry of Energy, Ministry of Environment
GEF Operational Programme:	Climate change
Project Start Date (planned):	13 November 2017
Project Start Date (actual):	8 November 2017
Project End Date (original):	8 November 2022
Project End Date (adjusted):	8 January 2024
Evaluation timeframe:	May-October 2023
Date of terminal evaluation report:	October 2023
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## **ACKNOWLEDGEMENTS**

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The Consultants would also like to extend special thanks to the personnel of the United Nations Development Programme and to the Project Management Unit, especially Mr. Gheorge Riciu, who did most of the work in organising the evaluation and made efforts to provide all the requested information supported by Ms. Inga Podoroghin, UNDP Moldova Programme Specialist.

## **DISCLAIMER**

This report is the work of independent evaluators and does not necessarily represent the views, or policy, or intentions of the UNDP or other stakeholders referred to in this report.

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## Acronyms and Abbreviations

CEDAW	UN Convention on the Elimination of all forms of Discrimination Against Women
COVID-19	Coronavirus disease of 2019
CSO	civil society organisations
CPD	UNDP Country Programme Document
GEF	Global Environmental Facility
GDP	Gross Domestic Product
Guidance	Guidance for Conducting Terminal Evaluations of UNDP-supported, GEF-financed Projects
HOA	Homeowners' Association
JSC	joint-stock company
Ltd.	limited liability company
MTE	Mid-term evaluation
MADRE	Ministry of Agriculture, Regional Development and Environment
MEI	Ministry of Economy and Infrastructure
MECR	Ministry of Education, Culture and Research
MoE	Ministry of Energy
MoEnvi	Ministry of Environment
MoIRD	Ministry of Infrastructure and Regional Development
MDL	Moldova leu (1 USD = 18.1 MDL)
MLSF	Ministry of Labour, Social Protection and Family
NDC	Nationally Determined Contributions
NGO	non-governmental organisation
PMU	Project Management Unit
ProDoc	Project document
PwD	People with Disabilities
SDG	Sustainable Development Goals
SESP	UNDP Social and Environmental Screening Report
SGC	Moldova Sustainable Green Cities project
STAP	Scientific and Advisory Panel
TBD	to be determined
TE	Terminal evaluation
TOR	Terms of Reference
ToC	Theory of Change
UNDP	United Nations Development Programme
UNDAF	United Nations Development Assistance Framework
UNEG	United Nations Evaluation Group
UNSDCF	United Nations Sustainable Development Cooperation Framework
USD	United States dollars

## 1 Executive Summary

This report presents the results of an independent terminal evaluation (TE) of the UNDP Moldova full-sized project “Moldova Sustainable Green Cities – Catalysing investment in sustainable green cities in the Republic of Moldova using a holistic integrated urban planning approach” which was funded with \$2,639,726 USD by the Global Environmental Facility (GEF) and was implemented during the period November 2017 – January 2024.

### 1.1. Project information table

Project Details		Project Milestones	
Project Title	Moldova Sustainable Green Cities – Catalysing investment in sustainable green cities in Republic of Moldova using a holistic integrated urban planning approach	PIF Approval Date:	June 1, 2015
UNDP Project ID (PIMS #):	5492	CEO Endorsement Date (FSP) / Approval date (MSP):	July 12, 2017
GEF Project ID:	9042	ProDoc Signature Date:	November 08, 2017
UNDP Atlas Business Unit, Award ID, Project ID:	00097704	Date Project Manager hired:	January 01, 2018
Country/Countries:	Republic of Moldova	Inception Workshop Date:	April 18, 2018
Region:	Europe & CIS	Mid-Term Review Completion Date:	November 19, 2020
Focal Area:	Climate Change	Terminal Evaluation Completion date:	October 2023
GEF Operational Programme or Strategic Priorities/Objectives:		Planned Operational Closure Date:	January 8, 2024
Trust Fund:	GEF TF		
Implementing Partner (GEF Executing Entity) (approved):	Ministry of Agriculture, Regional Development and Environment		
Implementing Partner (from 2018 <sup>1</sup> ):	Chişinău municipality		
NGOs/CBOs involvement:	NGO Expert Group as project board member and other NGOs as partners and beneficiaries		
Private sector involvement:	Orange Moldova, EV Point, Premier Energy, Fly Electric – as partner 4 private sector companies as founders for the Green City Lab More than 12 private sector companies as beneficiaries of Fast Track Challenge Programme grants		
Geospatial coordinates of project sites:	DD COORDINATES - 47.00556 28.8575 DMS COORDINATES - 47°00'20.02" N 28°51'27.00" E/		
Financial Information			
PPG	at approval (US\$)	at PPG Mid-point (US\$)	
GEF PPG grants for project preparation	USD 125,000	-	
Co-financing for project preparation	-		
Project	at CEO Endorsement (US\$)	at Mid-point (US\$)	at Terminal Evaluation (US\$)
[1] UNDP contribution:	USD 230,000	USD 469,950	USD 768,675
[2] Government:	USD 13,700,000	USD 14,615,193	USD 14,733,607
[3] Other multi-/bi-laterals (incl. Chişinău Municipality):	USD 25,500,000	USD 73,733,725	USD 119,087,892
[4] Private Sector:	-	USD 296,170	USD 458,213
[5] NGOs ( Agency of Innovation and Technology Transfer):	USD 500,000	USD 727,000	USD 727,000
[6] Total co-financing [1 + 2 + 3 + 4 + 5]:	USD 39,930,000	USD 89,842,038	USD 135,775,387
[7] Total GEF funding:	USD 2,639,726	USD 2,639,726	USD 2,639,726
[8] Total Project Funding [6 + 7]	USD 42,569,726	USD 92,481,764	USD 138,415,113

The report summarizes the findings of the work conducted by the team of two independent evaluators from June – September 2023. It provides an objective assessment of the project’s design, implementation, results, impact, relevance, efficiency and sustainability. It identifies a number of lessons learned and recommendations which may be used by UNDP Moldova to improve its programming, partnership arrangements, resource mobilization strategies, working methods and management arrangements. The evaluation included a

<sup>1</sup> As reported by the PMU, although the TE team was unable to objectively verify.

systematic desk review of project-related documentation, data collection based on interviews with key stakeholders and analysis of information using triangulation.

## 1.2. Project description

The UNDP GEF “Moldova Sustainable Green Cities – Catalysing investment in sustainable green cities in the Republic of Moldova using a holistic integrated urban planning approach” was launched on 8 November 2017 with an implementation timeframe of five (5) years. Later a no-cost extension was approved until 8 January 2024. Implementation began in April 2018 with an inception workshop.

The project is executing under UNDP’s Support to National Implementation (NIM) modality, with the Ministry of Agriculture, Rural Development and the Environment (MARDE) as the main executing partner at time of project signing and at some stage, not clearly identifiable through documentation, the executing partner was changed to Chişinău municipality.

The main outcome of the project was the design, launching, and establishment of the Green City Lab to become the leading knowledge management and networking platform, clearing house, an inter-mediator of finance and a source of innovations and expertise to catalyse sustainable low carbon green city development in Moldova with a mission to transform Chişinău and other urban centers in Moldova into modern green and smart European cities with improved quality of life for their citizens, while also demonstrating opportunities for sustainable economic growth. The project has three components, consisting of 23 outputs:

**Component / Outcome 1:** Fully operational Green City Lab recognized by the key stakeholders as the leading innovation, knowledge management and networking platform and a source of expertise for catalysing sustainable low carbon green city development in Moldova with secured funding to continue its operation also after the UNDP/GEF project closure.

**Component / Outcome 2:** Successfully completed pilot/demonstration projects with related monitoring, reporting and verification of the results in the areas of: i) integrated and participatory urban land use and mobility planning; ii) residential building energy efficiency and renewable energy use; iii) low carbon mobility; and iv) resource efficient waste management.

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

## 1.3. Evaluation Ratings Table for “Moldova sustainable green cities project”

Monitoring & Evaluation (M&E)	TE Rating <sup>2</sup>	MTE rating	TE comments
M&E design at entry	MS (4)	MS	Quality of M&E more or less met expectations.
M&E Plan Implementation	MS (4)	S	General GEF monitoring and reporting requirements met. Most MTE recommendations are addressed. Concerns on implementation of MRV and M&E of other results indicators for demos and FTCP projects and knowledge management platform remain.
Overall Quality of M&E Implementation & Execution	MS (4)		
Quality of UNDP Implementation/Oversight	S (5)	S	PMU/UNDP implemented outcomes/outputs’ transformative demonstrative projects till GCL set-up in mid-2021 and remains effectively engaged in outcomes/outputs management implementation after. GCL takeover of Outcome 2 and 3 activities/outputs encountered delays, while focusing on Outcome 1. PMU/UNDP to retain effective GCL oversight including via GCL Business Plan and strengthened Board.
Quality of Implementing Partner Execution	MS (4)	S	Original partner was weak in involvement. Chişinău municipality was a strong partner, high ownership in most initiatives. Documentation on who was the implementing partner (Ministry of Environment or CM) varied, although operationally CM was considered the Implementing partner at an early stage (sometime after the Inception workshop).
Overall quality of Implementation/Execution	S (5)		
Assessment of Outcomes	Rating		
Relevance	HS (6)	S	Relevance of the project objectives increased: (i) with Moldova’s ratification of the Paris agreement and national policies adopted, (ii) increasing pressures from crises to increase

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

			energy security, efficiency and independence, (iii) society increasing demand for cities' effective organisation and service provision.
Effectiveness	MS (4)	MS	Urban mobility and energy efficiency demonstration and FTCP projects produced good results. Waste management and land planning area were two demonstration projects with implementation delay. Delay in GCL establishment (est. spring 2021 with project ending in autumn 2023 prior to extension) delayed learning. Knowledge management to facilitate learning, scaling up and replication from demonstrative projects' needs emphasis before project closure.
Efficiency	S (5)	S	Several key outputs were very efficient, and the PMU had to make adjustments because of the energy crisis and war in Ukraine which affected prices and supply chains.
Overall Project Outcome Rating	MS (4)		Rating cannot be higher than the effectiveness rating.
<b>Sustainability</b>	<b>Rating</b>		
Financial resources	ML (3)	ML	GCL income for the next years planned from resources mobilised from an established portfolio of projects and from income to be generated from projects (photovoltaic, horizontal heating) initiated by SGC Project. Need to maintain expertise and capacities built by and within the SGC Project and strengthen focus as a catalyst and facilitator.
Socio-political/economic	ML (3)	ML	Political instability will likely continue in Moldova and thus will likely affect the sustainability of SGC Project results. Genuine interest from multiple stakeholders to further develop initiatives in Moldova which may help to counter this.
Institutional framework and governance	ML (3)	ML	GCL success is instrumental. A lot remains to be done to capture the implementation success of the Project before it fully closes specifically in terms of policy-level mechanisms and in building capacities in this area.
Environmental	L (4)	L	The majority of the results are not subject to environmental threats.
Overall Likelihood of Sustainability	ML (3)		The overall rating cannot be higher than the lower rated dimension.

#### 1.4. Concise summary of findings, conclusions and lessons learned

The challenges of catalysing investment in the politically unstable environment of Moldova was further exasperated by the COVID-19 epidemic, the energy crisis and the war in Ukraine. The Project was tasked to work in innovation which lends itself for the need to experiment, as well as the risk that testing does not always end in success. The SGC Project had very ambitious goals for making progress in sustainable green cities in the Republic of Moldova. The focus was on Chişinău municipality, and the PMU managed to go beyond the capital city in bringing energy efficiency and renewable energy projects to other urban areas as well.

The project was expected to directly impact at least 20,000 people, from who no more than 60% were to be of the same gender. By the time of the evaluation (mid-June 2023), the SGP had conducted activities reaching at least 35,173 people out of which 57% are women. The level of co-financing was estimated at 39,9 million USD and was significantly exceeded with a total of 135,77 million USD. The total GHG savings for 20 years estimated by the Project is 1442,4 kilotons of CO<sub>2</sub>eq.

The Green City Lab achieved considerable respect in the community, is publicly recognisable with a sound reputation, able to deliver well in the areas of energy efficiency, renewable energy and urban mobility. One of the underlying issues as the GCL develops is that its success will be measured by its ability to become the facilitator among the public (central and municipal), private and civil society actors.

Due to the situation in Moldova and the energy crisis, the Project (and GCL) took the opportunity and focused on energy efficiency and renewable energy resource issues, both in terms of pilots and also in terms of the development of the roster of expertise and future programming. The GCL might need to re-invest finances gained from projects into building their expertise in other areas, if they keep the broad range of services currently set in their business plan.

Energy efficiency in public and private buildings received considerable attention and a sizable contribution from the Project via Demo and FTC projects. Support for the horizontal heating in private block of flats projects carried out in partnership with heating supply companies and in cooperation with Homeowners associations is a good practice employing earlier learned key success factors (partnership with private, civic and other partners, understanding existing demand and spreading media awareness) for scaling-up and influencing central decision-makers for institutionalising it through a dedicated policy. The EMIS project has emboldened authorities in streamlining the effort to more efficient and informed public buildings management.

The most successful demonstration pilot was the EV charging stations. The EV pilot project was a catalyst and it decisively contributed to the transformation by creating EV charging industry; achieved through the early understanding of the emerging demand, cooperating with the specialised public institution and thus indirectly



with another donor (EU Horizon), involving private sector actors as an enthusiastic and visionary partner, willing to invest and take their own risks (financially and technically), as well as through other partnerships with media, which helped to inform the public. The project also made a sizable contribution towards urban mobility changes and improvements in Chişinău municipality.

The SGC Project, however, was insufficiently strategic in its approach in the project implementation in order to make transformation in urban planning and waste management. It would have been fruitful to draw lessons on success factors from and evaluate the early positive transformative results in energy efficiency and urban mobility areas. Two demonstration pilots were initiated very late and will not be implemented in time to extract lessons for potential replication. In terms of communication activities, public awareness and visibility far outnumbered strategic stakeholder engagement actions.

### 1.5. Recommendations summary table

The first recommendation pertains to the exit strategy to be developed upon closure of the SGC Project. The second to the implementation of Component 3 in terms of knowledge products. TE team was notified that the UNDP plans to develop the knowledge products in the next months until the project closure to be shared internally and externally, and GCL will be developing knowledge products from their perspective as well and that a consultant for this activity was already identified. As expressed in early September, we hope information from the TE report will be useful input to this task. The last pertains to the implementation of the land use pilot in order to increase its impact, establishing on the outset a testing area in the urban environment which could run in parallel to preparing the saplings in a controlled environment for three years prior to planting. It could provide an opportunity to, simultaneously testing and raising awareness.

Table 1. Recommendations Summary Table

#	Action	Responsible	Timeframe
1.	<p>Develop an <b>exit strategy for the SGC Project</b> as a whole and for UNDP Moldova from the GCL as Board member. The exit strategy should include, but not be limited to:</p> <ul style="list-style-type: none"> <li>- analysis on the role UNDP and the PMU has provided the GCL with steps to handover relevant roles to bridge the gap on UNDP's exit from the GCL Board;</li> <li>- confirm status and sign contracts<sup>3</sup> based on ESCO-type agreements ;</li> <li>- provide support to GCL and remaining Board members on lessons learned from the SGC Project initiatives;</li> <li>- clarify all commitments of demonstration pilot partners to the GCL and ensure transfer from the SGC Project to GCL, and review the agreements to secure the necessary commitments on submitting data on achieved GHG savings, beneficiaries, etc.</li> <li>- Review the legislative and regulatory framework as it pertains to the initiatives supported by the GEF and handover the results of the analyses to the responsible ministries, GCL and other key stakeholders.</li> </ul>	UNDP Moldova Country Office / Project Management Team/GCL Director	Immediately
2.	<p><b>Deliver the knowledge management products of Component 3 (Indicator 11 – A lessons learned report):</b> conduct a thorough review of the demonstration and FTCP projects, collating information on environmental, economic, impact, etc aspects and provide a concise summary for each demonstration project and the successful FTCPs which could be used by individuals and organizations to replicate. This should include information such as:</p> <p>Project area and scope, GHG savings and other environmental benefits, cost savings or economy, impact on community, key elements for replication, key barriers faced in implementation, important data. This information should be practical and specific (i.e. include concrete steps that were useful, concrete indicators, etc.)</p>	PMU, UNDP Moldova, GCL	Immediately
3.	<p><b>Complete the urban land use pilot:</b> Assess the opportunity to initiate collaboration between Garden Botanica and Chişinău municipality (or another city in Moldova, or perhaps the University) and to prepare a plot with the saplings in the urban environment from the start.</p>	PMU, Garden Botanica, Chişinău municipality	Immediately

## 2. Introduction

The terminal evaluation for “Moldova Sustainable Green Cities – Catalyzing investment in sustainable green cities in the Republic of Moldova using a holistic integrated urban planning approach” is initiated by UNDP as the GEF Agency for the project, in line with the Project’s monitoring and evaluation plan.

<sup>3</sup> At time of TE evaluation agreements on payback of financing for the Sculeni Placement Centre and the Singerei Hospital were still not signed. Due to the government reform, the Singerei Hospital and Sculeni Placement Centre will be subordinate to line ministries, not municipal authorities and thus the contracts need to be confirmed.

## 2.1. Purpose and objective of the Terminal Evaluation

As indicated in the [Terms of Reference](#) (TOR), the aim of the TE is to assess the achievement of project results against what was expected to be achieved, draw lessons learned that can both improve the sustainability of benefits from the project, and aid in the overall enhancement of UNDP programming. The TOR also notes that the TE report shall promote accountability and transparency and assess the extent of the project accomplishments.

The TE is carried out according to the UNDP Monitoring & Evaluation Policy and follows the guidance outlined in the document [Guidance for Conducting Terminal Evaluations of UNDP-supported, GEF-financed Projects](#) (Guidance) and the [Handbook on Monitoring and Evaluation for Development Results](#).

The [UNDP Evaluation Guidelines](#) require that all “evaluations should undertake a gender-responsive approach, even for projects that were not gender-responsive in their design.” The United Nations Evaluation Group guidance document [Integrating Human Rights and Gender Equality in Evaluations](#) will be consulted, and the Team will incorporate these elements into the evaluation.

The TE team consists of one team leader (international consultant) and one team expert (national consultant).

## 2.2. Scope

As a terminal evaluation, the assessment will include all elements of the initiative within the project’s results framework. The details outlined in the Terms of Reference (ToR) guided the evaluation process. Key issues on which the evaluation was focused were:

- Project design and its effectiveness in achieving stated objectives;
- Project implementation, the strengths and constraints of the implementation and executing agencies in monitoring, application of adaptive management, risk management;
- Sustainability of project outcomes, results, including the project’s exit strategy;
- Recommendations, lessons learned, best practices that may be used in similar UNDP and Global Environment Facility (GEF) projects, including results related to gender equality and empowerment of women.

Since there was a thorough mid-term evaluation (MTE) conducted in September 2020, the evaluation scope will be more in-depth on the period after this mid-term evaluation and included a review of the implementation of the MTE recommendations [Annex 00. Overview of MTE recommendations and responses](#). As a terminal evaluation – importance will be placed on the sustainability of the outcomes as defined in the results framework [Annex F: Results Framework from Project Document](#) and as reported on by UNDP Moldova.

## 2.3. Methodology

The approach for the TE was primarily determined by the Terms of Reference. The TE was conducted and the TE report drafted to provide evidence-based information that is credible, reliable and useful. An Evaluation Matrix was developed during the inception period, was used to track the project progress against set indicators, and can be found as [Annex E: Evaluation Matrix](#) to this Report.

The overall approach and method applied for establishing an evidence-based report applied the following methods: i) documentation review; ii) stakeholder interviews, including, some targeted focus groups, such as with the Green City Lab team, GCL Board members, beneficiaries and implementers of demonstration projects and few FTC Programme projects; iii) field visits to the project demonstration sites; iv) several extensive debriefings with the former and current SGC Project Manager.

The TE team conducted a thorough review of project documents [Annex D. List of documents reviewed](#). These sources provided information for the verification of findings and triangulation.

The project logical/results framework forms the basis of the TE, and thus the information on the “end of project target” status of the 12 indicators set in the framework was important. This information was to include references to the means for verification of each indicator, with, as appropriate, the references themselves (for example expert calculations on the direct GHG emission reduction impact of the project, cooperation agreements on the established partnerships, report on lessons learned, etc.).

The TE included a mission to Moldova from 31 July to 4 August 2023. The itinerary of the mission, including information on the demonstration sites visited and persons interviewed is contained in [Annex B. TE mission itinerary](#) and [Annex C. List of persons interviewed](#). The mission followed a participatory approach and included a series of structured and unstructured interviews, both individually and in small groups. Visits to

demonstration projects in Chişinău, Sângerei, Bălţi and Sculeni occurred: i) to validate the reports and indicators; ii) to examine infrastructure development and investments (including verification of Project visibility<sup>4</sup>); iii) to consult with demonstration project staff, local authorities and communities, private partners and others, as appropriate. The TE team also used the opportunity to conduct several impromptu interviews with members of the public to gauge their opinions and attitudes.

Follow-up discussions and interviews were arranged on-line during the phase of the finalization of the draft report, on the basis of requests from the TE team and upon mutual agreement with the interviewee(s), which included UNDP Regional Technical Advisor, Fast Track Challenge Monitoring Coordinator, and three of the Green City Labs Board members and founders. Separate questions draw up for discussion ([Annex E2: Interview Questions](#)).

Confidentiality was ensured in all interviews and, where possible, information was crosschecked among the sources (validation of documented evidence with interviews, for instance).

## **2.4. Data collection and analysis**

The documentation (see [Annex D. List of documents reviewed](#)) necessary to conduct this evaluation was made available in stage (prior, during and after the field visit). Data was also collected through stakeholder consultations in the form of structured and semi-structured interviews (a list of questions can be found in [Annex E: Evaluation Matrix](#)), and site visits.

To ensure that reliable information was used in the evaluation, data was gathered from as many sources as possible and cross-checked. As much as possible, information gathered during the desk review was verified through interviews with a wide range of stakeholders and site visits, however, due to the staggered incoming of requested information and documents – the desk review and verification against documents was continued throughout the assignment.

In addition to data provided by the Project, we sought expert opinions from public authorities, experts and organisations in the field, and publicly available documents. All available sources were used, to ensure that reliable data is employed in the project evaluation, thereby ensuring a complete, fair, and unbiased assessment. This approach allowed us to obtain assessments that were independent of the Project. Findings from interviews and documents were used to validate the Project reports.

Where possible the evaluation has sought the responses from multiple sources and stakeholders before drawing conclusions to provide a degree of quality assurance. Given the use of multiple sources, it is the TE team's opinion that this report portrays a comprehensive and dependable assessment of the project.

## **2.5. Ethics**

The TE has been undertaken by two independent evaluators. The evaluators were held to the highest ethical standards and were required to sign a code of conduct. The evaluation was conducted in accordance with the principles outlined in the United Nations Evaluation Group (UNEG) [Ethical Guidelines for Evaluations](#). The team ensured anonymity of the interviewees and UNDP staff was not present during the interviews.

## **2.6. Limitations to the evaluation**

There were no limitations on travel to or within Moldova during the TE, and thus the TE team was able to meet with all stakeholders in person and visit selected project sites.

The Terminal Evaluation was undertaken before the revised end-date of project and some work was still underway (such as the implementation of two of the demonstration pilots: on reverse vending machines and on establishing a nursery) or planned (such as initiation of the development of the lessons learnt report and other activities planned to reach targets set under *Indicator 11: Agreed knowledge management products and event delivered*).

As with all evaluations, the evaluation process time and resources are limited for an evaluation and the project delivered many diverse outputs. Although this impacted the depth and breadth of data collection and analysis,

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<sup>4</sup> During the mission the TE team was informed that a new GEF logo required that all components of Project visibility be changed.

the TE evaluators have conducted a thorough review of documents and reports and consider that those inspected have been representative of the Project as a whole.

By the time of the Project terminal evaluation, the Project had a skeleton staff and the TE was scheduled during the summer period. Thus, some limitations evolved in terms of contacting key persons to participate in interviews and provide verification (three of four GCL Board members were available, the Project Board member from the National Agency for Research and Development did not attend the meeting).

The evaluation team sought to establish clear communication channels, maintain open dialogue with stakeholders, and emphasize the value and importance of their participation in the evaluation process. Some project-related data and information has been received from the PMU after the field visit, however all possible efforts were made to minimize the limitations of this evaluation.

## **2.7. Structure of the TE report**

This report follows the outline set in the Terms of Reference, which are also outlined in the Guidance. The first section of the evaluation report is the executive summary which contained key Project information and the evaluation ratings table, as well as a summary of findings, including the recommendations. The second section provides an overview of the evaluation objectives and methodology, followed by the third section which contains a description of the project, the development context, information on the theory of change and the main stakeholders. The fourth section presents the main findings of the report and consists of three parts: the first part assesses key aspects of project design and formulation; the second part focuses on implementation issues both in terms of monitoring and evaluation and UNDP implementation; and the third part presents an assessment of the results achieved by the project along the standard dimensions of relevance, effectiveness, efficiency, and sustainability. The fifth section summarises the main evaluation findings, recommendations and identifies key lessons learned drawn from the experience of the project. Additional documentation to support argumentation made throughout the document is provided in the annexes attached to this report.

### 3. Project description

#### 3.1. Project start and duration, including milestones

The Project was approved for implementation as a full-sized GEF project for a 5-year implementation period in July 2017. The UNDP Project document was signed in November 2017 and the Project Management Unit was in place in January 2018 with the inception workshop held in April of the same year. The total resources for the project at the time of signature were 2,639,726 USD from the GEF Trust Fund and 80,000 from UNDP TRAC resources with a total budget to be administered by UNDP of 2,719,726. Co-financing was anticipated at a total of 39,850,000 USD with 150,000 from UNDP (in-kind), 13,700,000 from the MADRE (of which 100,000 USD was anticipated in-kind), 25,500,000 from CM (of which 500,000 in-kind) and 500,000 cash from the Agency for Innovation and Technology Transfer.

Table 3. Project Timeline

Milestone	Date
GEF CEO Endorsement	12 July 2017
UNDP Prodoc Signature	8 November 2017
PMU Established (project manager contracted)	1 January 2018
Inception Workshop	18 April 2018
Mid-term Evaluation	19 November 2020
Terminal Evaluation	August- October 2023
Initial Operational Project Completion	8 November 2022
Initial Financial Project Closure	31 December 2022
Operational Project Completion	8 January 2024
Financial Project Closure	8 January 2024

The project had an expected closure in November 2022. The end-date was revised to January 2024 upon the suggestion of the mid-term evaluation to accommodate the delay in establishing the Green City Lab. The extension was approved on 29 March 2022.

Originally, the Project was designed to establish this entity in the first year of the Project and Green City Lab was finally set-up in March 2021. External factors that influenced delays include the global COVID-19 pandemic which began in 2020, the war in Ukraine which commenced in February 2022, as well as other factors, such as political instability.

#### 3.2. Development context: environmental, socio-economic, institutional, and policy factors relevant to the project objective and scope

The project document identified several development challenges. One of those was Moldova's GHG emissions per GDP which continues to remain among the highest in Central and Eastern Europe. GHG emissions increased by 53% to 10 million tons CO<sub>2-EQ</sub> per year between the year 2000 and 2020. This is an indication that there is considerable, still untapped mitigation potential.

At the time of Project development Moldova in its Intended Nationally Determined Contribution (INDC) submitted to the UNFCCC committed to reduce its GHG emissions by at least 64% by 2030 compared to the 1990 level and by up to 78% subject to a global agreement addressing access to low-cost financial resources, technology transfer and technical cooperation. Since this time, the country has elaborated measures to reach those targets in the Low Emission Development Strategy (LEDS) and become Party to the Paris Agreement on Climate Change.

The OECD report *Promoting Clean Urban Public Transportation and Green Investment in Moldova*<sup>5</sup> discusses Moldova's energy intensity, which in 2014 was 195 kilogramme of oil equivalent (koe) per 1000 USD of GDP compared to 88 for the European Union and 110 for the OECD countries. The country's key emitter sectors in 2020 were: energy in residential and industrial sectors (51%), transport (18%), agriculture (11%), waste (12%)<sup>6</sup>. The significant emissions from transport are a key source of air pollution (especially in

<sup>5</sup> <https://www.oecd-ilibrary.org/sites/b4b68030-en/index.html?itemId=/content/component/b4b68030-en>

<sup>6</sup> <http://www.clima.md/doc.php?l=ro&idc=82&id=5357> THIRD BIENNIAL UPDATE REPORT OF MOLDOVA, developed to be reported to the United National Framework Convention in Climate Change

urban areas). From 2000 to 2020, the consumption of primary energy resources had increased by 54.1%; while the intensity of emissions (CO<sub>2</sub>eq/GDP) decreased by 42.6%, indicating signs of economic growth decoupling from the increase in GHG emissions by 24.6% over the period 2000-2020<sup>7</sup>. Moldova's updated NDC committed to more ambitious targets than in its first NDC, the country's new economy-wide unconditional target is to reduce its GHG emissions by 70% below its 1990 level in 2030, instead of 64-67% as committed in the first NDC, which could be further increased to 88%, if international low-cost financial resources, technology transfer, and technical cooperation are ensured.

According to the National Bureau of Statistics of Moldova<sup>8</sup>, since the beginning of 2014, the population of the Republic of Moldova with usually resident population has been continuously decreasing, reaching 2603,8 thousand inhabitants at the beginning of 2022, of whom 1102,5 thousand people (42,3%) make up the urban population and 1501,3 thousand (57,7%) people – the rural population. During this period there was a considerable increase in negative net migration in the rural area, from 7,7 thousand people in 2014 to 22,5 thousand people in 2019, with the maximum value recorded in 2017, reaching a negative net migration of 29,7 thousand people. The UNDP Country programme document (CPD) for the Republic of Moldova (2023-2027) highlights that Moldova has been struggling with a complex energy crisis since 2021. Since 80 per cent of national electric power is gas-fuelled, the rise in gas tariffs reduced the affordability of energy services for the population.

Primarily, the flow of residents from rural areas is to Chişinău, and by 2030 Chişinău is expected to host over 50% of all urban population in Moldova putting even more pressure on city's infrastructure and services, while also creating considerable social and environmental challenges. The urban residential housing stock accounts for about 40% of the total residential floor area. Its energy consumption and climate-related impact is exacerbated due to considerable heat and electricity losses from the distribution grids and the buildings themselves. Municipal solid waste (MSW) management is primarily based on waste disposal on landfills with only limited recycling and practically no waste to energy use.

With a GDP per capita of 5,200 USD in 2021, Moldova is one of the poorest countries in Europe.<sup>9</sup>

Since February 2022, Moldova has faced several challenges due to the war in Ukraine. The country's heavy reliance on food and energy imports from Ukraine and Russia made it vulnerable to conflict-related disruptions to food and energy supplies from these countries and the international sanctions imposed. In October 2022 the inflation rate reached an all-time high of 34.6%, this has since eased to 13% (June 2023). Part of the SGC Project coincided with the breakout of the COVID-19 pandemic and the sanitary emergency situation declared for more than a year. These problems were amplified by the presence of over 100,000 Ukrainian refugees in the country and the fact that in 2022 drought destroyed almost 90% of the corn harvest and also badly impacted other crops. This has led to a 10% drop in the GDP, increased poverty and social inequality, augmenting the vulnerability of many women due to fewer financial resources within families.<sup>10 11</sup>

Moldova became a recipient and transit country for refugees because of the ongoing war in neighbouring Ukraine. By the end of April 2022, over 440,000 people had already entered Moldova, either heading to other destination countries or staying, thus making Moldova the largest recipient of refugees in per capita terms.

In terms of the environmental context, the driver of change in Moldova is the European integration agenda, which requires harmonization and alignment with the EU environmental *acquis*, and commitment to multilateral environmental agreements. The pressures, however, from the current development contexts in Moldova in relation to population influx in cities, refugee and energy crises resulting from the war in Ukraine, exacerbate already challenging situations.

### **3.3. Problems that the project sought to address: threats and barriers targeted**

The problem sought to address the fact that green low carbon urban development requires identification of win-win opportunities addressing the primary concerns of municipalities, while also producing tangible GHG

<sup>7</sup> <http://clima.md/doc.php?l=en&idc=82&id=5801> National Inventory Report : 1990 - 2020. Greenhouse Gas Sources and Sinks in the Republic of Moldova

<sup>8</sup> [https://statistica.gov.md/en/usual-resident-population-in-territorial-profile-for-the-period-2014-2022-9578\\_59589.html](https://statistica.gov.md/en/usual-resident-population-in-territorial-profile-for-the-period-2014-2022-9578_59589.html)

<sup>9</sup> <https://data.worldbank.org/indicator/NY.GDP.PCAP.CD>

<sup>10</sup> <https://theconversation.com/moldova-is-trying-to-join-the-eu-but-it-will-have-a-hard-time-breaking-away-from-russias-orbit-206838>

<sup>11</sup> <https://www.cia.gov/the-world-factbook/countries/moldova/>

reduction benefits. Although there is a wide and constantly growing spectrum of new technical, institutional and financial solutions available, innovations and approaches may never reach fruition due to different administrative, financial, public perception or other barriers. New innovations and approaches may never make their way to the actual implementation stage due to different administrative, financial, public perception or other barriers - or simply, because the innovators and possible adopters and beneficiaries of these ideas are not aware of or do not trust each other. There may also be no concrete incentives, venues or initial resources to jointly test and develop innovations further. Other key barriers the project identified are:

- Inadequate/outdated regulatory support and enforcement of the strategic goals. This also includes primary legislation, but especially secondary legislation which guide the activities on the ground, but typically drag behind and may remain misaligned with more advanced sectoral strategies and action plans. Also, problems with the related enforcement capacity of the public authorities;
- Institutional capacity challenges, overlapping mandates and insufficient coordination mechanisms with limited networking opportunities, lack of trust and recognition of mutual benefits for co-operation and coordinated action between different key stakeholders (inter-ministerial, central vs. local governments and municipalities, civil society organizations (CSOs), individual apartment owners and house owners' associations (HOAs), private sector and the international financing community);
- Lack of tradition and experience on broad community engagement, public participation and crowdsourcing in urban planning and development;
- Different capacity, knowledge and public awareness barriers on the latest technical developments and solutions tested in other countries, related lesson learned and development of initial ideas into feasible business ideas and investments proposals; and
- Different affordability and financing constraints in leveraging and structuring financing for projects and related new business ideas to support sustainable urban development.

The Project was designed to be linked to the following Sustainable Development Goals (SDGs) and targets:

SDG # 7: Ensure access to affordable, reliable, sustainable and modern energy for all

Target 7.2: on increasing the share of renewable energy by 2030

SDG # 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

Target 8.3: on promoting productive activities, decent job creation, entrepreneurship, creativity and innovation, and encouraging growth of micro-, small- and medium-sized enterprises, including through access to financial services

SDG # 11: Make cities and human settlements inclusive, safe, resilient and sustainable

Target 11.5: on reducing number of deaths and people affected by disasters by 2030

SDG # 12: Ensure sustainable production and consumption patterns

Target 12.2: on sustainable use of natural resources

Target 12.4: on sound management of chemicals and wastes

Target 12.5: on reducing waste generation via prevention, reduction, recycling and reuse

SDG # 13: Take urgent action to combat climate change and its impacts

Target 13.1: on resilience to climate-related hazards and natural disasters

Target 13.3: on education and awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning.

### **3.4. Immediate and development objectives of the project**

The objective of the Project is “To catalyse investments in low carbon green urban development by an integrated urban planning approach and by encouraging innovation, participatory planning and partnerships with a variety of public and private sector entities”.

As a vehicle to obtain this objective, the Project was the establishment of the Green City Lab to become the leading knowledge management and networking platform, clearing house, an inter-mediator of finance and a source of innovations and expertise to catalyse sustainable low carbon green city development in Moldova with a mission to transform Chişinău and other urban centres in Moldova into modern green and smart European cities with improved quality of life for their citizens, while also demonstrating opportunities for sustainable economic growth.

### 3.5. **Expected results**

The Project is expected to deliver three main results:

Fully operational and sustainable Green City Lab (GCL) recognized by the key stakeholders as the leading innovation, knowledge management and networking platform and a source of expertise for catalysing sustainable low carbon green city development in Moldova with secured funding to continue its operation after the project closure.

Successfully completed pilot/demonstration projects facilitated by the GCL with related monitoring, reporting and verification of the results in the areas of: i) integrated and participatory urban land use and mobility planning; ii) residential building energy efficiency and renewable energy use; iii) low carbon mobility; and iv) resource efficient waste management.

Knowledge management and M&E to facilitate learning, scaling up and replication of project results in the four project areas.

### 3.6. **Main stakeholders: summary list**

The Project included a broad list of stakeholders:

- State Chancellery expected to act as the Government Co-operating Agency to support Project implementation
- E-government Center and UNDP Innovation Hub expected as a partner sharing services and location with the Green City Lab to be established within the Project
- Municipality of Chişinău identified as the main Project beneficiary
- Ministry of Environment (MoENV), the GEF and UNFCCC national focal point and the Project Implementing Partner and Executive Agency.

The following were identified as implementing partners:

- Ministry of Economy (MoE) and Energy Efficiency Agency (EEA)
- Energy Efficiency Fund (EEF)
- Ministry of Regional Development and Construction (MoRDC)
- National Council for Architecture and Urban Development (NCAUD)
- Licensed urban design companies
- Technical University of Moldova (TUM)
- Agency for Innovation and Technology Transfer (AITT)
- Homeowner associations (HOA)
- European Bank for Reconstruction and Development (EBRD), European Investment Bank (EIB), World Bank (WB)
- Civil society organizations (CSOs)
- Private sector companies.

### 3.7. **Theory of change**

The Theory of change (ToC) and the areas to be addressed and supported by the project was reflected in a simplified illustration.



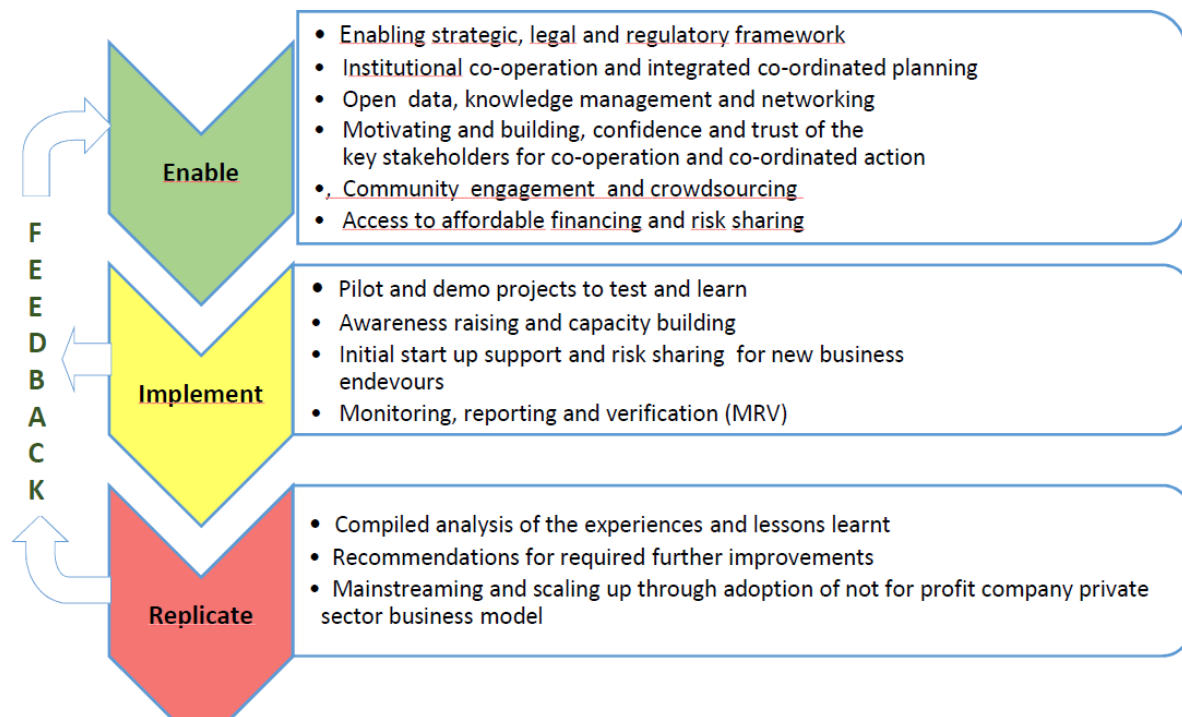


Figure 1. ToC and the areas to be addressed and supported by the project

The ToC is structured under three interrelated components that are separated in their purpose to achieve the developmental objective – aspects that will **enable**, which relate to the regulatory framework, data and knowledge management, financing and other issues; steps to **implement** such as the pilot and demonstration projects, and monitoring, reporting and verification (MRV); and the area **replicate**, which includes the analysis of experiences and scaling up.

At time of Project development, the required support is foreseen to be primarily facilitated by and through the GCL with the aim to support both public and private sector stakeholders to initiate, develop and implement innovative and economically feasible solutions as a response to the development challenges faced and ensure green urban development. As indicated in the illustration, feedback loops are anticipated among the three elements – enable, implement and replicate – for the theory of change to manifest itself properly.

## 4. Findings

This section presents information based on the analysis of the evidence and data, both from the interviews and the documentation received in the period from the start of the assignment to the preparation of the report.

### 4.1. Project design/formulation

The Project design and formulation was assessed on whether it helped to achieve the expected results. The mid-term evaluation conducted in November 2020 made some preliminary observations on the project design and its flaws, which will be included in the TE analysis for reference.

#### *Analysis of results framework: project logic, and strategy, indicators*

The Result Framework in the Project Document contains three outcomes, 24 outputs and 12 indicators. There are targets identified both for the Mid-term and end of the Project. Those set at the Objective level provide clear goals and can be considered as providing guidance for the Project Team on the focus of the components and outputs for implementation. At the level of the Outcomes, however, the targets focus on numbers of projects, partners, and percentages to achieve in terms of gender. The Project is open to four areas of operation – urban land use and mobility, energy efficiency and renewable energy use, low carbon mobility and resource efficient waste management. This provides some general guidance for the Project team. In response to the GEF Scientific and Advisory Panel (STAP) review, concrete pilot/demonstration project ideas for each of the four areas were added as Annex G. This annex also contains specific framework conditions and targets for the pilot/demonstration projects and their design, including:

- Following a participatory planning approach, at least one pilot is to be developed for each targeted substance area;
- Participatory planning approach via refining the pilots in consultation with recipient community or service users fostering atmosphere of trust and visible results and benefits;
- Sum of all specific pilots will not represent more than 20% of the total project cost (GEF grant + co-financing). Pilots aim to provide a cost-effectiveness of USD 10 per ton of CO<sub>2</sub>eq reduced. Need to produce adequate MRV plan to generate direct GHG emission reduction of at least 100 ktons of CO<sub>2</sub>eq over period of 20 years;
- Direct beneficiaries should reach at least 20,000 people.

Outcome 1 has a complex formulation “Fully operational Green City Lab (GCL) recognized by the key stakeholders as the leading innovation, knowledge management and networking platform and a source of expertise for catalysing sustainable low carbon green city development in Moldova with secured funding to continue its operation also after the UNDP/GEF project closure” and contains within it a broad range of expectations which are not all reflected in the respective outputs and indicators within this outcome. One of three indicators under the Outcome is “Status of the GCL and the specific outputs under the Outcome 1 to support its operations” which places high emphasis on the activity-level, without clear guidance or focus on the result to be achieved. This indicator does not adhere to the SMART approach. The indicator is not specific, is measurable only in terms of completed outputs, it is not attributable as it identifies steps to be taken without a clear vision on the change to be reached.

The outcomes and outputs at Project design already had a disconnect with the ToC, defined in the Project Document. There was a large emphasis on the ToC diagram’s implementation and replication aspects, with no reflection in the results framework outcomes of several areas illustrated as crucial to enable the Project. For instance, although an enabling legal and regulatory framework is identified as important to the Project’s ToC, only Output 3.8 mentions this aspect in the context of an end of project report.

The design did in principle capture the necessary framework in Component 3 to facilitate capturing the lessons of the Project’s demonstration project and pilots which provide a guide on establishing a phased and sound withdrawal of the Project. The scope of the Project to cover four areas of intervention: i) integrated and participatory urban land use and mobility planning; ii) residential building energy efficiency and renewable energy use; iii) low carbon mobility; and iv) resource efficient waste management was ambitious and, considering the planned financing for the GCL to cover these diverse and clearly distinct spheres of expertise, overly optimistic. This component anticipated the establishment of demonstration projects which was an essential part of the design and strategy. The number of activities and the total GEF resources planned from the

Project for the demonstration projects represented over 90% and at least four of this type of project were expected to be implemented, thus one can assume these were designed as a central part of the Project strategy. These demonstration projects (see [List of demonstration project ideas in the Project document](#)) were expected to produce a lot of information in a broad range of indicators. They were also anticipated to deliver on, at least half of the targeted GHG emission reduction impact (Indicator 3) of the project and all of the direct beneficiaries targeted under Mandatory indicator 2.

As stated in the mid-term evaluation report, there was “tension built into the project design” as the Project needed to achieve specific results in terms of GHG mitigation at the same time needing to ensure the financial sustainability of the GCL. In this case “the short-term achievement of GHG mitigation may not fully align with the financial sustainability of the Green City Lab: activities that generate the greatest short-term GHG mitigation are not necessarily the activities that generate the greatest financial return”.

One of the recommendations of the MTE was to revise the results framework to improve relevance of some indicators, and the rationalisation of key targets.

In terms of indicators, gender-disaggregated data is anticipated in the design, however the logical framework does not integrate gender equality and women empowerment issues within its strategic approach.

### ***Assumptions and risks***

The Project Results Framework elaborates assumptions made when defining the Project Objective, the Outputs and Indicators. Since the development of the Green City Lab was core to the Project design, a majority of the assumptions are centred around the GCL and its capacities to: meet criteria of financiers, materializing required co-financing and other contributions, attract clients and receive fees for its services, enter into agreements with partners (including with the Chişinău municipality), have a legal status that allows it to partner with public and private sector and participate in tenders. The only assumptions not directly connected to the GCL in their formulation are those related to the MRV mechanism and those related to Component 3.

Nine potential risks were identified in the ProDoc and at the Inception phase, the Project risks were tabled and rated in accordance with their impact and probability. These included one political and one organisation risk related to partners and stakeholders, one financial risk related to beneficiaries, one technological and one environmental risk related to technologies and equipment, one organisational risk related to donors, and one environmental risk related to climate change. The ProDoc also lists an operational risk on the failures to establish the GCL as a self-sustaining entity and to raise funding for new projects after the end of GEF grant support.

There were no additional risks identified in the Inception Report, but the risks were re-assessed as the probability increased by one point for two risks: i) the risk of GCL failing to be established increased; ii) cooperation and co-financing arrangements with key project partners fail to materialise. The impact was assessed to have decreased by one point for the technological risk. Also at this stage, one operational risk “Inadequate and/or non-capacitated human resources of the project team to successfully implement the project by adaptive management and support the mainstreaming of its results” initially noted was removed, although it was rated with a high impact of five (5) and with the medium probability of three (3) at the Project design phase.

The UNDP Social and Environmental Screening Report (SESP) is included as Annex 1 to the ProDoc and details how the project is to improve gender equality:

- advance gender equality and women empowerment as agents of change in the development processes of the cities of Moldova, thereby also contributing to implementation of the UNDP Gender Equality Strategy 2014-2017;
- encourage female entrepreneurs to implement sustainable urban development solutions for access to affordable and good quality housing and public utility services, public transport and safe environment;
- include gender disaggregated data in the Monitoring, Reporting and Verification related activities and use gender-equality criteria in the investment component;
- consider gender in all communication activities and knowledge transfer activities;
- ensure female entrepreneurs benefit.

The SESP states that the demonstration projects are expected to be of “small scale, temporary and uncomplicated thus expected not to generate any significant adverse social and environmental impacts”. The

risks that are mentioned in the SESP primarily relate to the environmental aspects resulting from potential construction works conducted during implementation (pollution generated from waste and spills, as well as dust and noise (community health, safety and work conditions; pollution prevention and resource efficiency).

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

The Project design incorporated approaches from several other initiatives and projects. It was designed to benefit from the UNDP Social Innovation Hub (MiLab) project and benefit from its success in engaging co-designing projects. The initial project design was developed based on the model of The Carbon Trust<sup>12</sup> in the United Kingdom. This company was set up with significant capital investment as a company founded by the UK government.

Lessons from the “Transforming the Market for Urban Energy Efficiency in Moldova by introducing Energy Service Companies” (ESCO Moldova) project were the basis for three of the five demonstration project ideas - two on urban planning and one on building energy efficiency.

### ***Planned stakeholder participation***

The Inception Report of August 2018 provided a reaffirmation of the stakeholders and their planned roles in project implementation based on the list provided in section 3.6. Essentially, at the inception stage the stakeholders planned were not changed which points to the continued relevance of key stakeholders. Stakeholder engagement is an important part of the SGC Project. As reflected in the indicators and targets set, partnerships are at the core of all activities. This includes both as a requirement for the development of the pilot/demonstration projects through a participatory planning approach, and also in terms of implementation as the project and initiatives under Component 2 which will render the GHG savings and other targets are designed to be implemented by partners.

Another important strategy in terms of stakeholder participation planned was for ensuring the sustainability of the GSL – establishing the entity as a good partner for providing services to stimulate innovation. Thus, partnerships with banking institutions, private sector companies, civil society organizations and others to, over the course of the Project, secure confidence in GSL’s capacities.

### ***Linkages between project and other interventions within the sector***

Linkages with other projects and interventions were included in the ProDoc. The PMU was to benefit and work alongside the on-going UNDP Social Innovation Hub (MiLab) by working together in partnership developing joint events and marketing.

The UNDP-GEF *ESCO Moldova – Transforming the market for urban energy efficiency in Moldova by introducing Energy Service Companies* (ESCO Moldova) had assisted the Chişinău Municipality in procuring the development on an updated General Urban Plan (PUG), based upon which one of the demonstration pilots were planned in the area of urban planning.

The SGC Project was also expected to establish synergies and collaboration with the following UNDP-implemented projects in Moldova: EU-funded Moldova Energy and Biomass, Low Emission Capacity Building, Chişinău Municipality project, and the Regional UNDP project “*Increasing Urban Resilience by use of ICT for Mainstreaming Disaster and Climate Risk Reduction in Armenia, FYR Macedonia<sup>13</sup> and Moldova (ICT for urban resilience)*”.

Female entrepreneurs were to be specifically encouraged to benefit from the project support through the Women’s Green Business Initiative<sup>14</sup>.

The project was also projected to collaborate with initiatives funded by the European Bank for Reconstruction and Development (EBRD), the European Investment Bank (EIB) and the World Bank (WB). These initiatives were in the area of zonal planning, energy efficiency, green urban development. The initiatives within the

<sup>12</sup> <https://www.carbontrust.com/who-we-are/our-history>

<sup>13</sup> Deemed North Macedonia since February 2019.

<sup>14</sup> <https://www.undp.org/publications/womens-green-business-initiative>

programming of these financial institutions were planned for large investment projects, including one EIB project lending ~ 100 million EUR to upgrade and develop solid waste management systems in line with Moldova's Waste Management Strategy 2013-2027.

## **4.2. Project implementation**

This section assesses implementation and how the Project implementation unit used the resources at its disposal.

### ***Adaptive management***

Political instability (changes in institutional make-up at the Government level, frequent changes in representatives assigned from institution/s to the Project) created a lot of pressures on the PMU to adapt as a result. Changes in the representatives participating in activities, but also in the institutions (MADRE and division of responsibilities between Ministry of Environment, Ministry of Infrastructure, development of Ministry of Energy, the funds which changed status) all made it essential to adapt.

As identified in the MTE, "Even though the Green City Lab concept was supported by relevant stakeholders, its implementation approach was not fully tailored to the country specific situation, which resulted in delays during the execution phase". The delay to establish the GCL meant that the PMU took on project implementation until the establishment of the GCL. Since the GCL was only established in 2021, the PMU was essentially fulfilling, implementing, and monitoring the functions that were originally planned for a separate entity. The legal and practical basis and model for the GCL changed several times - from the model of The Carbon Trust UK, a model which would be directly under the City Hall of Chişinău, to a non-governmental organisation.

The PMU also faced challenges in needed to adapt its operation related to the energy crisis and war in Ukraine which resulted in changes in pricing and the necessity to find new suppliers over the course of the Project. These issues had an impact on planning and delivery of outputs. As self-reported by the PMU, this also affected the budget, however adaptive management seems to have alleviated this part as testified by the financial expenditures.

There were also many issues that came up in the implementation of the demonstration/pilot projects. These were related to changes in priorities from the main beneficiary (Chişinău municipality), changes in other projects and/or co-financing that were scheduled as the main partners for implementation (the Romanian government was to provide a 10 million euro grant<sup>15</sup> to CM with an aim to reduce flooding and droughts on the vulnerable areas of the Bic river).

Legislation was lacking to support the ESCO mechanism for GCL under the demonstration projects of photovoltaic systems to sign contracts on receiving reimbursement from energy savings. Although the PMU was under the impression that the Ministry of Finance allowed for this mechanism to be used by UNDP for these two projects, complimentary citing the creation of the inter-ministerial working group upon the initiative of the Ministry of Energy to sort out the issues, a review of the documentation provided suggests that the MoF responses merely state the situation and responsibility of returning the funds provided as an investment<sup>16</sup>. In this respect it might be useful, before SGC Project closure to clarify if there are any legal implications to these contracts now, when the two institutions will be subordinate to line ministries, and not the municipalities of Sculeni and Sângerei.

Essentially all the demonstration project examples and options provided in the ProDoc, were adapted to different pilots over the course of implementation. This was time and resource-consuming for the SGC Project team, as with each change, a new assessment of the option, the stakeholders and potential resource

<sup>15</sup> <https://www.moldpres.md/en/news/2019/02/18/19001364>

<sup>16</sup> MoF 02.03.2022 letter responds to the 20.01.2022 request from Green City Lab request stating that the financial decisions regarding the monthly repayments over the period of 7 years, towards the loan to purchase the photovoltaic systems, belong to the National Insurance House with regard to Sculeni Elderly Placement Center and to the Health Insurance Company with regard to the Sângerei Hospital or by the corresponding local authorities. Both mentioned institutions operate on the basis of self-autonomy and have to raise their funds to allocate the repayment resources in case these payments exceed the approved budgets.

mobilisation and partnerships was explored. The ProDoc included one demonstration project idea under “Sustainable Urban Mobility – Battery Powered Trolleybuses” which potentially would elaborate a Sustainable Urban Mobility Plan (SUMP). It was conceived to provide modal shift towards sustainable transport choices, looking at indicators that would show advancements in km of bicycle lanes, number of children walking to school, use of mobile apps, number of safe routes to schools and improved air quality in the city centre. Instead the implementation was determined on Chişinău municipality strategies, which resulted in the development of the following documents on public and private transport and urban mobility: elaboration of the Green City Action Plan, development of the Sustainable Urban Mobility Plan or the sustainable transport concept, the Green Design Code and the integrated urban development strategies (Chişinău Development Concept and Strategy and General Urban Plan for CM).

One of two urban planning demonstration projects was designed to create additional or improved green infrastructure along the Bic River Basin. Funding was planned from the Romanian Government for river restoration and flood management measures and was to increase hectares of brownfield land brought to economic use, to increase the amount of land taken out of flood risk, reduce costs of managing pluvial and fluvial risks, establish new green infrastructure, etc. The SGC Project waited for some time for the funding from the Romanian Government to materialize and when in at the end of 2022 it became clear that this would not be feasible, the Project looked for other opportunities.

Based on discussions with the CM and consultations with other stakeholders, including UNDP, it was determined that a pilot could be initiated on green spaces in the CM, and it was determined that inventory on green spaces should be conducted, based upon which works would follow. This idea, however, was also abandoned due to issues with the land cadastre in Chişinău. The final Demonstration Project was the one for Botanica Garden which was under preparation during the TE mission. This demonstration project was to produce saplings for green spaces in Chişinău and other places. These saplings are being selected for planting to be resilient to climate change in Moldova. An irrigation system is to be built in the Botanica Garden and tentatively ~ 10% of the market demand may be satisfied.

The idea on urban waste to biomass energy had planned indicators on quantity of biomass replaces from landfill used for briquettes production and converted to energy, CO<sub>2</sub> reduced by replacing burning of coal with wood briquettes, reduced CH<sub>4</sub> emissions from landfill and area of green spaces improved by additional investments.

The Urban Waste to Biomass Energy pilot ended up as a *Reverse Vending Machines* pilot. The main partner for this changed in the final stage, after equipment had already been purchased. At the time of the TE mission, the machines were not yet in use and the company had not yet clarified what would be the scheme to stimulate consumers to dispose of their empty bottles in the machines. Provisionally, it was intended to implement a benefit-scheme in three months’ time and is planned as a discount % for further purchases in the supermarket. The only indicator was defined as the quantity of waste sorted and collected.

As noted in the MTE, the initial design of the demonstration projects was based on the interests of various institutions, without a strategic approach developed for this aspect of the project during the development phase. The MTE notes that the project design would have been improved by narrowing the pilot and demonstration activities in a more targeted and strategic approach. There potentially were points at which such decisions could have been made, however it seems the focus in management was on ‘getting things done’ and implementation – leaving little time for strategic discussions and consultations. The MTE recommendation, management responses to the recommendations and TE team comments are shown in [Annex 00. Overview of MTE recommendations and responses](#).

As identified above, the number of challenges and changes that were required for the SGC Project staff to adapt to were many and complex. This adaptive management was primarily on the implementation level and did not materialise in any specific changes in the project design. Considering the overwhelming number and scale of the stressors, the TE team finds it difficult to judge that a more strategic approach would have been possible. Nonetheless, the establishment of several indicators and respective targets for the demonstration pilots could have brought the implementation of these pilots to a more strategic level, and, if sources for collection of information on targets could have been agreed with stakeholders – there would be interesting material for discussion on the replication or scaling-up of these innovations.

### Actual stakeholder participation and partnership arrangements

For the reasons discussed above, it was difficult to engage stakeholders in the manner which was planned in the Project design stage. There were many stakeholders with many different interests. Such a broad range of stakeholders requiring to succeed in performing as a catalyst in the four SGC Project areas demands frequent and consistent engagement. It also requires mutual interest.

Engagement was hampered from 2020 by COVID-19 restrictions and throughout implementation the number of changes in key personal, institutions and political instability affected the ability to maintain ownership among the planned stakeholders and partners. Over the last five years, Moldova held two parliamentary elections, two presidential and general local elections with the coming two years scheduled for another turn of local, presidential and parliamentary elections. Some five governments have changes over this period of time, with only the last two years having a stable political majority in place. The number and kinds of changes in the main stakeholders of the SGC Project are reflected in Table 4.

Table 4. Structural and leadership/key personnel changes over the course of the SGC Project

Institution	2018	2019	2020	2021	2022	2023
Ministry of Environment				Issues of regional development and agriculture split from former MADRE (09.2021)		
Chişinău municipality	Municipal elections (10.2019)	New deputy mayor with new team (Victor Chironda, responsible for urbanism and mobility, 11.2019)		Deputy mayor resigned (Victor Chironda, 07.2021) Ilie Ciobanu, deputy mayor took over		
GCL				Established in March Director appointed in March Victor Parlicov, appointed as Minister of Energy		New Director registered on 03.03.2023 Veronica Herta (and effective beneficiary)
UNDP			New UNDP Moldova RR	New RTA		New SGC Project Manager

Despite these changes, throughout the SGC Project, there has been a solid partnership with the main beneficiary and Executing Agency Chişinău municipality. There have also been solid partnerships established with additional municipal partners in Bălţi, Sângerei and Sculeni. Partnerships have been established, as planned in the project via agreements with different private and public companies, as well as non-governmental organizations.

In terms of gender, the project pursued the formal approach to keeping a tally of gender disaggregated data and requesting in the FTCP applications for gender information, there was a strategy, but it is not clear from communication activities or documentation, whether there was an active pursuit to address specific groups, including women's groups.

Of the 20 agreements signed with counterparts, 17 (85%) are represented by a male and the other three (15%) by females. Thus, the partnerships have not reached the balance of the 'no more than 70% managed by the same gender'. The PMU notes that, until the Project closure, GCL plans to sign an additional at least four collaboration agreements with institutions managed by women in order to ensure the balance of the gender as required by the Project indicator 5.

In terms of structured communication with stakeholders, the SGP had a formal approach to communication. Annual communication plans were generated for the project, however, the objectives and key messages remained unchanged from 2019 until 2023:

- Ensuring visibility for the Project and the programs launched by the project, its results and impact;
- Promoting intelligent and innovative solutions of urban development;
- Creating and maintaining an active and dynamic communication platform for target groups;
- Identifying active supporters for the smart cities concept, who will continue to get involved in lobby and advocacy for promoting and enforcing the models provided by the project;
- Ensuring the visibility of the project's donor and partners.

Moreover, the main target audiences were: local public authorities, general population and population of Chişinău, entrepreneurs, private sector (telecommunications, IT, transport, construction, banking companies), journalists and mass media, civil society, influencers, think-tanks, opinion leaders. Although these general classifications of stakeholder groups and broad-ranging key messages would be expected for the first up to 18 months of the project, one would expect key messages and communication with stakeholders to become more focussed and targeted when the project begins to have more specific messages and outputs to communicate. It is also puzzling, considering the emphasis that the SGC Project has on national-level results (and the benefits to those that could be potentially achieved by regulatory and government support), that no national public authorities are included in the communication strategy.

One other problematic issue in terms of partnership arrangements is the engagement of the MoEnv, who remained fairly disengaged throughout the project. This can be partially attributed to GEF project design, as the institution of the GEF Operational Focal Point is the signatory and formal Implementing Partner of GEF projects. In this case, the main interest in SGC project results were from other line ministries and municipalities.

### Project finance and co-finance

The financial information in terms of planned versus actual financing is presented in Table 5. As can be seen by the expenditures, there has not been much deviance from the planned and actual in terms of the expenditures divided among the three components and project management.

Table 5. Project expenditures - Planned versus Actual Financing in USD

Component		2018	2019	2020	2021	2022	2023 <sup>17</sup>	Total*
1: Green City Lab	Planned	123,500	152,500	141,000	132,000	121,000		670,000
	Actual	102,085.27	137,180.77	40,306.85	157,855.22	96,063.60	102,777	663,057.97
2: Demonstration Projects	Planned	83,000	175,000	493,000	581,000	318,00		1,650,00
	Actual	58,414.21	209,879.98	413,132.55	465,762	416,337.83	10,558	1,662,646,52
3: M&E, Learning*	Planned	10,500	53,226	117,000	10,000	68,000		258,726
	Actual	10,657.65	35,399.77	86,656.89 27,000**	35,192.02	19,317.47 5,700	19,500	194,021.21 59,000
Project Management**	Planned	26,200	28,700	28,700	28,700	28,700		141,000
	Actual	23,647.75 420.19	21,583.05 5,045.99	25,844.22 6,036.64	23,360.18 5,209.36	18,366.55 3,097.62	6,046	120,000.30 21,000
<b>Total GEF</b>		194,804.88	404,043.57	565,940.51	682,169.42	550,065.45	119,381	2,639,726
UNDP	Planned	1,000	5,000	32,000	5,000	37,000		80,000
	Actual	420.19	5,045.99	33,036.64	5,209.36	8,797.62	19,500	80,000

\* Total for "actual" is 2018-2022 executed budget + planned 2023 budget.

\*\* Figures in blue denote funds from the Government.

In addition to the information provided in Table 8, there was direct Government financial contribution provided for Outcome 2 in the financial year 2020 – planned in the budget for 111 903,18 USD and disbursed from 2020 to 2023 and for Outcome 4 in the amount of 905,28.

Discrepancies in expenditures can be seen in year 2020 of the project which one can assume was connected to COVID-19 epidemic. It may also be partially related to the fact the GCL was only established in 2021, but this

<sup>17</sup> Data provided for disbursement and commitments in August 2023.



is unlikely due to stable expenditures in the previous years 2019 and 2018 when GCL was also not yet founded. The TE team did not go into detail on the expenses and there were no audits conducted during the course of the SGC Project. As explained in section 4.3. on Project results, contracts and deliverables within those contracts pertained to completed tasks and monies spent. Thus, reports were on these deliverables and although delivery against these points was achieved and satisfactory, the formulation of deliverables hindered the evaluation of their satisfactory nature beyond quantitative measures, i.e. there were not controls put in place within the contracts requiring contractors to report on (or be assessed according to) qualitative aspects of deliverables. The fact there were no financial audits conducted during the project lifetime also does not make it possible for the TE team to confirm or refute the application of due diligence in the management of funds.

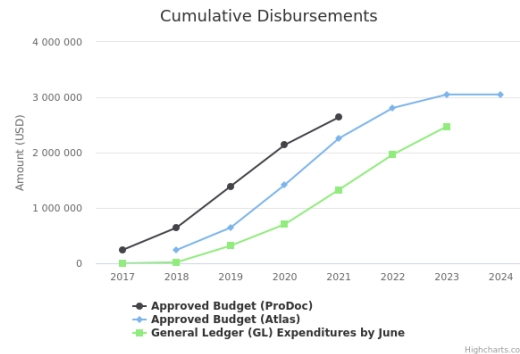


Figure 2. Project cumulative disbursements as of 30 June 2023

The cumulative disbursements in Figure 2 show a quite uniform curve. Since the demonstration projects were to be a substantial part of the GEF project resources, Table 6 shows some of the demonstration projects where one can see the estimated funds that were anticipated for the project ideas, and the actual funds that were used for these initiatives. There were some stipulations stated in Annex G of the ProDoc whereby the share of the GEF grant may not represent more than 20% of the total project cost (total project cost= GEF grant +co-financing). For some projects it could be higher and for others – it could be lower as long as “overall the GEF grant does not exceed 20% of total cost of all the demonstration projects”. This has been adhered to.

Table 6. Distribution of GEF funds according to the Demonstration projects

Demonstration	Solar panels (Renewable Green Urban)	EV chargers (urban mobility)	Thermoelektrika (EE)	Vending machines (waste)	Garden Botanica (Urban planning-PUG)	EMIS
GEF funds estimated in ProDoc, USD	205,000	380,000	275,000	250,000	150,000	Planned under Outcome 3.
SGC Project funds actual, USD	129,000 (GEF)	118,000 (GOV)	185 400 (GEF) of which 98 600 CET-Nord 86 800 Thermoelectrica (Te)	199,500	70,000	19275 USD - IT support and platform adaptation 27660 USD - inter-connectivity platform to transmit data from smart meters to EMIS 20900 USD - smart meters
Co-financing of the Demo projects, USD	0,00	296,170 (EV Point)	141,590 (Te) 18,840 (CET-Nord) 151,140 (residents)	Estimated 50,000	Estimated 25,000 (Garden Botanica)	99 250 Euro (Expert Group/Netherlands <sup>18</sup> )

\*EMIS project was implemented under Outcome 3 and not formally considered a demonstration project.

The level of co-financing reported by SGC Project is exceptional. It has significantly exceeded the intended amount at time of ProDoc design and signature. The co-financing has been mobilised from a broad range of stakeholders – and in both in cash and in-kind. Information on co-financing figures changed several times over the course of the evaluation which warrants attention be paid to documentation at project closure. It was also

<sup>18</sup> <https://www.expert.org/countries-expert-international/>

not possible to verify upon receiving the updated table<sup>19</sup>, whether the significant amounts of in-kind co-financing meet GEF guidelines on co-financing,<sup>20</sup> however the TE team was assured the updated co-financing table was cleared by the UNDP Regional Office.

Table 7. Planned and Actual Co-financing

Source of Co-financing	Name of Co-financer	Type of Co-financing	Investment Mobilized	Planned (USD)	Actual (USD)
Beneficiary	Chişinău Municipality	In-Kind	Investment mobilized	25,500,000	72,990,000
Other	Russia-UNDP Partnership for Development	Grant	Investment mobilized	0	17,000
Other	Czech-UNDP Partnership for SDGs	Grant	Investment mobilized	0	241,725
Other	Slovak Innovation Challenge	Grant	Investment mobilized	0	40,000
Donor Agency	UNDP TRAC	Equity Investment	Recurrent expenditures	80,000	80,000
Donor Agency	UNDP	Cash	Investment mobilized	0	209,000
Donor Agency	UNDP Moldova Innovation Lab	In-Kind	Investment mobilized	150,000	180,950
Other	European Bank for Reconstruction and Development	In-Kind	Investment mobilized	0	300,000
Recipient Country Government	Energy Efficiency Agency	Public Investment	Investment mobilized	0	118,414
Recipient Country Government	Ministry of Agriculture, Regional Development and Environment	In-Kind	Investment mobilized	13,700,000	14,615,193
Others	Agency for Innovation and Technology Transfer	In-Kind	Investment mobilized	500,000	727,000
Others	Multi-partner collaboration	In-kind	Investment mobilized	0	145,000
Private Sector	EV Point Srl	Equity Investment	Investment mobilized	0	296,170
Private Sector	Companies supported within FTCP	Equity Investment	Investment mobilized	0	162,043
Others	Termoelectrica and CET-Nord	Other	Investment mobilized	0	26,500,000
Others	European Union	Grant	Investment mobilized	0	18,282,200
Others	Expert-Grup	Grant	Investment mobilized	0	111,390
Others	Czech Embassy in Moldova	Grant	Investment mobilized	0	447,542
Others	USAID	Grant	Investment mobilized	0	271,760
Others	Soros Moldova	Grant	Investment mobilized	0	40,000
<b>Total</b>				<b>39,930,000</b>	<b>135,775,387</b>

### ***Monitoring and evaluation: design at entry, implementation, and overall assessment of M&E***

The SGC Project has a comprehensive M&E plan which describes each of the planned activities, including roles, responsibilities, and timeframe. The plan was to be supported by Component/Outcome 3 *M&E, knowledge Management and replication of project results*. The mandatory GEF M&E requirements were included, a budget for M&E activities was planned and the facilitation of learning, scaling up and replication of the project results was included in Component/Outcome 3. There was one NIM audit planned over the five years as per UNDP audit policies, which was to be covered by co-financing. Given the focus of the Project on innovation and replication, the Results Framework could have benefited from more focussed indicators of both qualitative and quantitative nature, with mid-term targets to assess progress. As noted in the MTE, the total

<sup>19</sup> Final updated co-financing table was received by TE team from SGC Project on 6 November 2023.

<sup>20</sup> [https://www.thegef.org/sites/default/files/documents/GEF\\_FI\\_GN\\_01\\_Cofinancing\\_Guidelines\\_2018.pdf](https://www.thegef.org/sites/default/files/documents/GEF_FI_GN_01_Cofinancing_Guidelines_2018.pdf)

budget for Component 3 was \$68,000, indicating that some of the M&E activities would come from other project components or the Project Management Costs.

The M&E design at entry is *moderately satisfactory*.

One of the aspects in terms of the implementation of monitoring and evaluation to be assessed by the evaluators is whether the Project's Theory of Change was reviewed and refined during implementation. During interviews and in the review of documents, there was no evidence that there was a review of the ToC. Moreover, the mid-term evaluation does not appear to have addressed this issue directly, although evaluator comments on the Project strategy and the problems in the results framework reflect the identification of issues related to the ToC. This includes the recommendation to revise the results framework to improve relevance of some indicators.

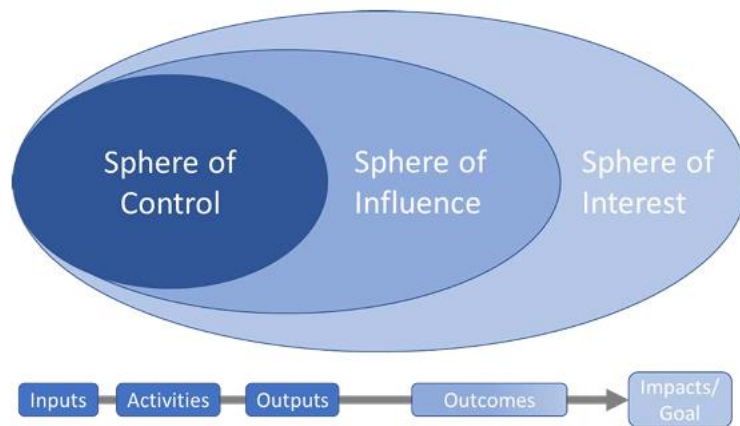


Figure 3. depiction of the relationship between the impact, outcomes, outputs and activities of an intervention

As identified in the GEF Theory of Change Primer<sup>21</sup>, the theory of change process should work from first looking at the impacts or goals and move on to outcomes, outputs, activities and inputs. In the Project's ToC illustration in 3.7, there was a causal link (indicated by the feedback loop) which showed that, in order for the intervention to be expected to have the planned effect, the aspects under the tag *enable* and *replicate* would need attention during the implementation.

Overall, M&E activities have been implemented as set in the ProDoc and in accordance with GEF requirements: reports have been provided at required intervals, an inception workshop has taken place and an inception report has been produced, Project Board meetings have been conducted, the MTE was completed. There was no financial audit conducted on the Project as planned in the ProDoc, however UNDP Moldova noted that an audit for UNDP Moldova 2022-2023 projects will take place in 2024 of which SGC Project may be a part. Considering the nature of the project in terms of number of transaction and number of individual 'contractors' a financial audit once in the lifetime of the project is advised.

As per the SESP, the project has not developed human rights-based approaches that could have served as a guidance to look into the perspective of the most vulnerable: as persons with disabilities, the poor households, the children, the elderly, etc. comparable to the elaborated gender strategy. The Human rights-based approach could have elaborated on the specific rights incorporation perspective into the activities in the thematic areas identifying also duty-bearers and particular obligations with the standards and good practices relevant, as well as the civic actors to be engaged with.

Nevertheless, the project proceeded on a case-by-case basis. The project addressed energy poverty and therefore the most needed and poor via three demonstration projects (horizontal heating, photovoltaic systems) and one FTC programme project by smart metering, thus contributing towards the right to an adequate standard of living (art.25 Universal Declaration on Human Rights, art.11 SCER), and SDG 1 (end poverty), SDG 7 (affordable energy). However, the financial means for the implementation of the right for the most

<sup>21</sup> [https://www.thegef.org/sites/default/files/council-meeting-documents/EN\\_GEF\\_STAP\\_C.57\\_Inf.04\\_Theory%20of%20Change%20Primer\\_0.pdf](https://www.thegef.org/sites/default/files/council-meeting-documents/EN_GEF_STAP_C.57_Inf.04_Theory%20of%20Change%20Primer_0.pdf)

marginalized and poor which has been applied with the repay loan scheme is not differentially based on the particular needs of the poorest. In this regard, the project engaged with only the provider of the heating services that are the monopolist supplier who have bargaining power over the heating services consumers. Direct engagement by the SGC Project and GCL with and introduction of actions to strengthen the civic groups (e.g. Home Owners Associations) that represent the needs and the rights of this category along with the respective Ministry of Social Protection, responsible to address the energy poverty issues, would have been advisable.

Another aspect in the SESP on the setting up of the thematic areas urban task forces including public, private, civic and other actors could have advanced and provided better contribution towards the accomplishment of the clean environment SDG 11 (safer cities, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities). In the urban mobility area, the project has demonstrated a good practice through the participatory elaboration of the Urban Street Guidelines, Urban *Mobility Plan*, Strategy and *Road Map* for extended dedicated public transport lane, Strategy for Alternative *Transport Infrastructure*, Chişinău Smart *Transport and Mobility* Strategy Analysis that followed the SESP framework.

The implementation of Component 3 and indications that the component has not yet produced any knowledge products raises concerns that the appropriate measures in evaluating over time, and capturing the results from monitoring of demonstration/pilot and FTCP projects, have not been made. Thereby the implementation of M&E is evaluated as *moderately satisfactory*. Overall assessment of the M&E is moderately satisfactory as issues with monitoring of the achieved GHG emissions, direct beneficiaries identified at the MTE stage remain at the TE state as well.

### ***UNDP implementation/oversight and Implementing Partner execution, overall partner implementation/execution, coordination and operational issues***

The SGC PMU was established by UNDP, including a Project Manager, Programme Associate and over the course of implementation, the SGC project also contracted experts as part of the team such as Business development Project Officer (from 2018-2020), Communication Officer (from 2018-2020; 2020-2021; 2021-2023 (May)), and Project Assistant (from 2018-2021 (June); 2021 (August) – 2022 (March); 2022 (April)-2022 (August); 2022 (October) – 2023 (July)).

At the inception stage the Project Board was established and comprised eight members with Chişinău Municipality as Head of the Board and representatives from Ministry of Agriculture, Regional Development and Environment, Ministry of Economy and Infrastructure, Ministry of Finance, Ministry of Education, Culture and Research, E-Government centre, UNDP Moldova and an NGO Expert Group (Independent Analytic Expert Group). At this stage the Ministry of Agriculture, Regional Development and Environment is cited as the government institution responsible for the project and thus the Executing Agency (EA). Responsibilities included overall responsibility for the project implementation, timely and verifiable attainment of project objectives and outcomes, support to implementation of all project activities. At this stage the Chişinău municipality was to be the key partner serving as national coordinator for project implementation, providing office space for project implementation and covering all utility expenses.

The final members of the Project Board included Chişinău municipality as Head of the Board, UNDP Moldova, Ministry of Culture, Ministry of Infrastructure and Regional Development, Ministry of Environment, European Business Association and Agency for Research and Development. The latter two were added in 2021 on the basis of a recommendation from the MTE.

During the course of the project, the membership of the Board has completely changed, i.e. there are no members from the original Board. The changes evolved from individuals being promoted, resigning and from structural and leadership changes as reflected in Table 4 (changes in the leadership at City Hall and UNDP). The largest number of changes occurred in 2022, when five out of nine members changed due to rotation in the institutions which they represented. The initial and final project governance structures are depicted in Figure 4.

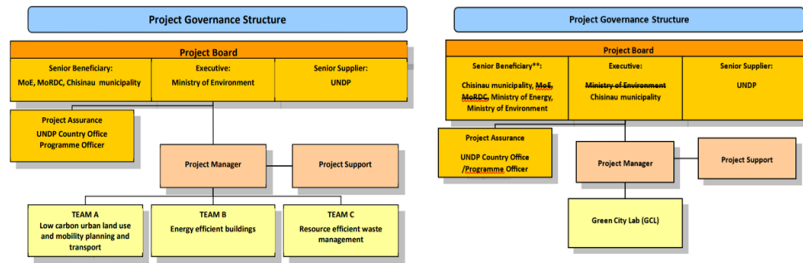


Figure 4. Management arrangements before the establishment of GCL (left) and Project Governance Structure at Project closure (right).

The leadership of the Project Board was changed from the Ministry of Environment to Chişinău municipality, due to the high ownership of the SGC Project taken by the Chişinău municipality, essentially compensating for the limited ownership from the Ministry of Environment (MoEnv). Due to the many political changes, both structurally and in the leadership and staff of the MoEnv, it was difficult to maintain buy-in and continuity in the membership and management of the Board from the Ministry. Taking into consideration active and direct engagement of Chişinău municipality both in terms of project design and practical information, the implementing partner was reported to have been switched “naturally and practically” to Chişinău municipality. This move is said to have been “instrumental in advancing implementation”.

Thereby, MoEnv transformed into senior beneficiary, as the project overall aim was to reduce CO<sub>2</sub> emissions and achieve other important environmental benefits. The general lack of interest and engagement in the Project on part of the MoEnv was confirmed during the TE mission.

Due to the COVID-19 pandemic, and the frequent and many changes in the Board composition, the PMU introduced approaches to produce on implementation. One was through evaluation panels that were formed to review tenders. These included members of the Board and UNDP to maintain transparency. They were established for only two:

- EoI20/02034 for selecting the association of co-owners of a multi-storey residential building to get rehabilitated in the residential sector which included representatives from the Project, UNDP, MoEI, Chişinău municipality;
- EoI20 / 02141 for selecting co-owners' association of a multi-storey residential building(s) for the installation of photovoltaic systems.

This was a good practise which could have been carried over to other tenders to ensure Board members were engaged and to show transparency of the process.

A major element of the Implementation framework for the project rested in the establishment of the Green City Lab. However, since it took almost three years before this came to fruition, the implementation of the Project more wholly rested on the PMU and thus also UNDP Moldova. The Green City Lab *Asociația Obsteasca Green City Lab Moldova* was finally founded on 5 March 2021 and the founders were as follows:

Name	Type	Profile	Board member
AM Sisteme SRL	Limited liability company (Ltd.)	Construction and engineering works, energy efficiency and renewable energy. Agreed to provide GCL services and expertise free of charge (including logistical support).	Andrei Mereacre
Simpals SRL	Ltd.	Group of IT companies working in project development and innovations, data analysis. Agreed to provide GCL company services free of charge, financially support GCL.	Vadim Jelescov
Premier Energy SRL	Ltd.	Energy supplier, largest in Moldova. Agreed to operationally and financially support GCL.	Jose Luis Gomez Pascual
ABS Recycling SRL	Ltd.	Waste management. Agreed to provide GCL services and expertise free of charge and delegate one staff to GCL when needed.	Irina Balica

The founders have been appointed for a three-year term, ending in March 2024 very soon after UNDP-GEF project closure. UNDP Moldova representative was also voted to as Member of the Board for a three-year term. At the time of the terminal evaluation the Board members remained the same as of date of founding of the GCL.

In accordance with the Guidance, the TE, among other things, is tasked to evaluate UNDP's responsiveness to significant implementation problems. One of the key implementation problems, which was also the key design approach in the Moldova Green Cities Project, was the establishment of Green City Lab. During the course of implementation, there is evidence of conflicting ideas on the scope and form that this entity was to take. A draft research report in 2018 *Horizon-scanning for the Green City Lab setup within the Chisinau Municipality*<sup>22</sup> explored the placement of GCL within the city's administrative structure<sup>23</sup>. As discussions from the July 2019 Board meeting show, there were still many different ideas on the Board member composition (UNDP Regional Technical advisor expressed that WB, EBRD and other development partners be members), legal grounds (not-for-profit, entrepreneurial), role of municipality (lead, beneficiary or partner) as well as others. Although it is difficult to fully assess all that transpired, it seems evident that because of the unique nature of this project, and the fact that the main model upon which the project was initially designed (Carbon Trust Fund UK) declined to collaborate with the Project, it seemed essential that the regional office for UNDP needed to properly assist the PMU and UNDP Moldova to re-work the project through the Theory Change and the results framework.

One of the elements of the ToC was to work in a 'feedback' loop through implementation, replication and considering the elements that enable (or limit enablement) of successful implementation and replication. A number of stakeholders met over the course of the TE emphasized the need for policy developments to accompany the innovations. It was felt the Project identified the pressure points, but that there was a need to have the municipality and the national-level institutions to take responsibility for climate change issues (supporting investments with the needed legislative and regulatory framework) and also to show support for civil society, especially those willing to fuel change. There were concerns that there are a lot of investments coming to Moldova, but that the framework to make appropriate use of these investments to effectively manage positive change may make it difficult to use these resources to the fullest extent.

The PMU made good use of collaborating with other countries (Serbia, Bosnia and Herzegovina) to extract lessons learned from previous initiatives and to select best practices that could be further tested in Moldova on the energy management information system (EMIS). Here, useful experience identified through UNDP, facilitated experts from UNDP Moldova, the SGC Project and GCL to collaborate with colleagues in UNDP Serbia and UNDP Bosnia and Herzegovina in bringing the EMIS system to Moldova. To facilitate this, trainings and workshops were organized by GCL for the leadership of 17 public institutions from Chisinau (the ones where the EMIS was tested in the initial phase). Also, a workshop on Energy Management in the buildings (including EMIS) were organized for 50 energy managers representing central and local authorities, as well as the private sector. The workshop was organized in January 2022 and was held by Matiaj Vajdic, energy expert from Croatia, who participated in EMIS development.

Support to urban green sustainable mobility was implemented in collaboration with CM, Czech -UNDP Partnership for SDG's and Orange. With these partners and the support of the European Space Agency, the project is providing the municipality with accurate big data through a distinct algorithm (OPAL Open Data Algorithm). The OPAL is elaborated for Moldova by "Data Pop Alliance" through a partnership memorandum with UNDP within a project implemented regionally by the UNDP Istanbul Regional Hub "Building more vibrant and resilient cities";

The TE<sup>24</sup> of the ESCO Moldova Project (completed in November 2018) concluded that the "model for ESCO market development was too innovative to the country" at that time. Among the observations made at the time, was that no work was envisaged in supporting the Government policies to support ESCO activities.

Upon review of the risk log, the identification of risks is quite rigorous. The levels of risks have been adjusted, risks associated with the environmental (such as wastewater discharge from sewage systems, noise and dust pollution, waste and spills) and organisational (safety conditions for workers) risks identified connected with

<sup>22</sup> [https://docs.google.com/document/d/1ENprgCSz6kix3qZcX47CsEsxjn7Z-o1S/edit?usp=drive\\_link&ouid=107768883976351731195&rtfpof=true&sd=true](https://docs.google.com/document/d/1ENprgCSz6kix3qZcX47CsEsxjn7Z-o1S/edit?usp=drive_link&ouid=107768883976351731195&rtfpof=true&sd=true)

<sup>23</sup> During the TE mission, there was information that an assessment (legal and otherwise) had been made on the GCL's status as an NGO. The PMU provided only the GCL business plan as a reference which does not provide such analysis.

<sup>24</sup> <https://erc.undp.org/evaluation/evaluations/detail/9655?tab=documents>

construction works within the SESP have been included and monitored. Four new risks were added with activities for treatment:

- Intensified armed conflict in the Ukraine and its extension to Moldova (security);
- Energy crisis and low prioritisation of partners for urban development (operational);
- Exchange rate loss on the US dollar versus national currency (financial);
- Delayed GCL establishment and demo project implementation (operational).

The latter risk was identified from July 2021. The only activity for treatment cited is the extension of the project. This risk could probably have been identified earlier, as it was probably clear prior to this that the delayed GCL establishment would impact the demo project implementation and there could have been a series of activities to counter the impact identified “not reaching project targets as planned”. It may also have been useful to table the operational risk “Inadequate and/or non-capacitated human resources of the project team to successfully implement the project by adaptive management and support the mainstreaming of its results” which was tabled in the ProDoc but removed at the Inception stage. This risk was initially rated with a high impact of five (5) and with the medium probability of three (3). Since the GCL was not established for some time, this meant the Project team had to implement much more directly than previously planned/designed. Also, it is clear to the TE team that the “back-office” support from UNDP, which was estimated as a mitigation measure for this risk was used to the highest extent. UNDP Moldova took a very involved approach in many aspects which very directly related to this risk. Tabling of this risk may not have changed the support received, but it may have allowed to explore different solutions and measures.

In terms of the social standards, the measures (listed in Assumptions and risks under Section 4.1.) that were anticipated in terms of gender issues were not fully realised. The objective to improve gender equality has not been flagged by the project, with the exception of FTC projects Guide as a secondary focus. The FTC projects Table 19 shows that several supported projects qualified to this criteria. More than half of the project evaluation reports contained gender-disaggregated data on the beneficiaries and the project implementation teams. The overall gender-disaggregated rationale could not be checked against the project provided final gender disaggregated data by tracing the collected project-by-project data or via the independent source. The majority of the videos produced by the project are gender balanced, so that either the direct protagonists chosen are women, or the selected beneficiary of the activity is chosen to balance gender. The Communication strategy criteria and principles are contributing towards gender-balanced reflection of the project activities. One FTCP project has directly benefited the women-led entrepreneurs including in the economic value-chain. Also, several FTCP project beneficiaries are women-led or owned.

In terms of UNDP Implementation, the TE team considered the constraints that faced the Project and the issues related to the design which required a much more involved engagement from the UNDP than would be expected for a project of this size. From the documentation reviews by the evaluators and from the information gathered from people interviewed, UNDP took many steps to ensure that the project was able to succeed in implementing activities and to reach results, despite the plethora of challenges and instability faced both by the country, and the project. There is also, however, some evidence that part of the issues faced in the indecision of selecting the legal form for the GCL came from differences of opinion internally within UNDP (regional and national level offices). There is also evidence that some capacities were not built in the PMU to solidify a strategic view of issues, improve reporting, strengthen gender-related issues where UNDP’s expertise and input could have provided valuable insight and improved the overall results of the project. Thus, the UNDP Implementation/Oversight is rated as *satisfactory*.

As noted above, the leadership of the Board was changed from the MoENV to Chişinău municipality. There seems to be no official change in the Executing Agency. The MoENV has played a negligible role in implementation, as confirmed through minutes of the Board meeting. Moreover, the PMU and UNDP Moldova confirmed the Executing Agency as Chişinău municipality and in some documentation, CM is stated as such. Chişinău municipality appears as an active partner, as shown in their engagement in various facets of implementation and execution. They were, however, also direct beneficiaries and thus, there was a risk of overlapping in filling the roles of both executive (ultimate responsibility for the Project) and beneficiary (representing the interests of those who will ultimately use the outputs). This risk potentially was higher due to the low interest and engagement of other Board members witnessed in reviewing Project Board meeting minutes.

In terms of Implementing Partner Execution – the rating is *moderately satisfactory*.

### 4.3. Project results

This section covers the observations of the Evaluation Team, where the project's achievements are held against the outcomes foreseen in the Project Document.

#### 4.3.1. Progress towards objective and expected outcomes

The information presented in this section has been sourced from the Project Implementation Reviews (PIR), the MTE and other documents which have presented the results over the course of the Project. This has been supplemented with information that has been extracted from interviews conducted during the mission and over the course of the period following the mission. The progress towards the Project objective has been summarized in Table 8, and the progress towards each of the three outcomes is presented for each outcome in separate Tables 9, 11 and 13. Each table is followed by a narrative description of the outcome which provide justification for the TE outlook.

Table 8. Progress toward Project objective

Project objective	Indicator	End of Project Target	Status at evaluation
To catalyze investments in low carbon green urban development by an integrated urban planning approach and by encouraging innovation, participatory planning and partnerships with a variety of public and private sector entities.	<u>Mandatory Indicator # 1</u> Extent to which climate finance is being accessed (IRRF 1.4.1 a)	At least USD 10 million leveraged for investments directly initiated or supported by the GCL  Mid-term target level: 2 million USD which at MTE was 723,309 USD or 37% of the target.	By 30 June 2023, the project initiated or supported USD 21.4 million as investments related to climate finance.
	<u>Mandatory Indicator # 2</u> Number of direct project beneficiaries with gender disaggregated data.	20,000 people, from whom not more than 60% for the same gender  Mid-term target level: 5,000 people, not more than 60% of the same gender	By June 2023, at least 35,173 persons as direct project beneficiaries, out of which 57% are women.
	<u>Indicator # 3</u> Direct GHG emission reduction impact of the project	200 ktons of CO <sub>2</sub> eq calculated over 20 year lifetime of the investment  Mid-term target level: 20 ktons of CO <sub>2</sub> eq which at MTE was cumulatively leading to 150.5 ktons CO <sub>2</sub> eq	By June 2023, the direct GHG emission reduction impact is calculated at 1442,4 kilotons of CO <sub>2</sub> eq. over 20 years

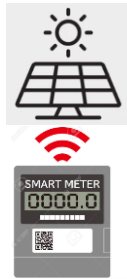
During the course of the Project several, some rather substantial co-financing sources did not materialise (such as the previously mentioned project on the River Bic from the Government of Romania). However, as indicated in the co-financing table (Table 7) the Project was able to leverage funding from various sources, which included some that were sourced in the final year of the Project:

- Rolling out Energy Management for Public Buildings at National Level in the Republic of Moldova, implemented by Green City Lab Moldova in partnership with Expert-Group NGO with financial support of Netherlands – USD 111,390 (EUR 99,200)
- Thermo-energetic rehabilitation measures of the temporary centre for refugees from Ukraine/boarding school from Carpineni, financed by the Czech Republic – USD 447,542 (EUR 400,000)
- Sustainability and climate resilience of Moldovan SMEs, implemented by Green City Lab Moldova with financial support of USAID – USD 300,000.

Thus, the Project's direct financing from GEF of \$2,639,726 USD leveraged more than 6,9 USD per each USD. This is an excellent result and, considering the level that was achieved at the MTE, may be an indication of the confidence in the Project's and GCL capacities which may have impacted this higher than planned return on GEF investment.



According to the figures presented on those benefiting directly from the Project, the Project has outperformed also in terms of Mandatory indicator 2:



Photovoltaics installations on:

- Residential building 1500 people (420 families)
- District Hospital 306 staff and ~ 6200 patients
- Sculeni centre for elderly 45 elderly and 20 permanent staff)

~ 8280 people working or studying in the 17 buildings equipped with smart meters  
1250 people (01 households) from energy efficiency retrofit of 6 multistorey residential buildings



~845 direct beneficiaries registered from the 15 projects support within the Fast Track Challenge Programme

greencitylab

The Project cited an additional 690,000 beneficiaries from the Project to include all residents of Chişinău, however this is not perceived as realistic to view as direct beneficiaries. Moreover, it apparently was not the intent of the Project Document when designed, as there were city-wide demonstration projects planned at the design stage, but only up to 20,000 direct beneficiaries expected to be reached.

The third indicator on the GHG emission reduction to be achieved by the Project activities was also one whereby the Project, as self-reported, overperformed. However, the TE team was unable to receive evidence on the calculations or documentation on GHG emissions in accordance with the initiatives implemented. Using the documentation at its disposal, the TE developed tables [Demonstration projects : gender and human rights indicators](#) and [Fast Track Challenge Projects : 16 projects](#) in Annex 0. These tables show for which demonstration and FTCP projects it was possible to find GHG emissions data amid the documentation available to the TE. Since all demonstration and FTCP projects were asked to provide information during the application stage, and in reporting – on GHG – one can expect to find this information among the self-reporting and MRV reports or other evaluation documents submitted and/or developed prior to their finalisation.

Outcome 1 was dedicated to the operationalisation of the Green City Lab and had three indicators and nine outputs planned to achieve the outcome. At the mid-term evaluation, the target under Indicator 4 was intended to be the development of the business plan for the GCL, however it had not yet been established in November 2020. At this time, the MTE report recommended that the baseline financial sustainability figure of \$200,000 in revenue per year be reviewed and more realistically assessed suggesting that if a lower revenue target is confirmed as the minimum level to achieve financial sustainability, then financial sustainability of the GCL by project completion will be more likely. This Outcome had nine outputs which were all to be completed as part of the indicator 4 reflected in the Table 9 on the progress of Outcome 1.

Table 9: Progress towards Outcome 1

Component Outcome	Outcome Indicator	End of Project Target	Status at evaluation
OUTCOME 1. Fully operational Green City Lab recognized by the key stakeholders as the leading innovation, knowledge management and networking platform	<u>Indicator # 4</u> Status of the GCL and the specific outputs under Outcome 1 to support its operations	The GCL established as a self- standing public or semi-public institution with all the outputs of the attached work plan under Outcome 1 completed. The GCL must be able to continue operations and to grow as it has alternative sources of revenue outside of the project and it should have at least 5 clients, each generating revenues of \$40,000 per annum or more meaning that the GCL should have revenues of at least \$200,000 per annum by the end of the project. Mid-term target: Business plan developed	Green City Lab established in March 2021 as a non-government organization.  ~ 50% of outputs under Outcome 1 fully completed (details provided in Table 10).  16 service contracts (2023) on energy management or audit. Total amount of 53,501

Component Outcome	Outcome Indicator	End of Project Target	Status at evaluation
which is profitable and a source of expertise for catalyzing sustainable low carbon green city development in Moldova with secured funding to continue its operation also after the UNDP/GEF project closure.			USD.  Three projects approved, two in pipeline for a total of 580,000 USD and over 5 million respectively for years 2024-2025.
	<u>Indicator # 5</u> Number of partnerships for green city development established in the frame of jointly implemented and/or developed projects and measures with gender disaggregated data, as applicable.	At least 5 formal co-operation agreements in the frame of jointly developed and/or implemented projects or other initiatives with at least 10 public or private entities, of which not more than 70% managed by the same gender.  Mid-term target: at least 1 formal cooperation agreement, which at MTE were nine agreements signed (six MoUs, one co-financing agreement with MEI, two with private sector company)	By 30 June 2023, 20 formal co-operation agreements were signed.  Ten formal partnership agreements were signed prior to GCL establishment. Additional 10 partnership agreements were signed by GCL.
	<u>Indicator # 6</u> Value of signed contracts / agreements not funded by GEF resources for covering the GCL operational costs	At least 5 or more signed non-GEF funded contracts or agreements at the combined value of at least USD 500,000 to enable GCL to continue its financially sustainable operation after the end of the project. The GCL shall have a target of annual revenues of \$200,000 per annum by the end of the project, not including fees that are earned from the project itself. This should be broken down into the GCL having at least 5 clients who pay at least \$40,000 USD per annum each.  Mid-term target: at least 1 non-GEF funded agreement signed with terms of 'fee for service' to be received by GCL, at MTE 1 non-GEF cost-sharing agreement was concluded with an implementation fee of 5%.	By 30 June 2023, 12 non-GEF contracts were signed so far in the total amount of USD 1.07 million.

In terms of indicators 5 and 6, the Project has overperformed. What during the MTE looked to be uncertain, has greatly improved during the years leading up to the TE. A very positive trend is the data from indicator 5 which provides information on the number of agreements signed since the establishment of the GCL.

All nine outputs of Outcome 1 are to be completed to be considered indicator 4 "Status of the GCL and the specific outputs under Outcome 1 to support its operations" as achieved. A brief assessment on the status of implementation is provided in Table 10.

Table 10. Status of implementation of outputs under Indicator 4

No.	Output description	Status
1.1.	PMU in operation serving as initial GCL with carefully selected staff, suited premises, including common workspace for networking facilities accessible for other actors <sup>25</sup> interested in green city development	√

<sup>25</sup> These actors in the output were formulated to include civil society organisations, homeowners' associations, individual experts, researchers and consultants, emerging start-up companies and others.

1.2.	An on-line network/roster of local and international green city experts and expert institutions with advanced search functions to provide easily accessed experts to those applying	Roster focus on energy efficiency and renewables, no advanced search function. Database will be updated October 2023.
1.3.	Partnership and cooperation agreements with key stakeholders <sup>26</sup>	√
1.4.	Development and use of complementary ICT solutions to support integrated and participatory planning, crowd-sourcing, impact monitoring and broad community engagement	Citizen engagement platform cited under this output is a general complaints platform for CM. There was no evidence provided that it supports integrated and participatory planning, crowd-sourcing or impact monitoring.
1.5.	Establishment of cross-sectoral green city/urban task forces seeking to influence i) urban land use and mobility planning; ii) energy efficient housing and related public utility services; and iii) resource efficient waste management	Cross-sectoral task forces were not established. Support to CM was provided on various development strategies.
1.6.	A series of innovation events <sup>27</sup> where ideas generated may also qualify for follow-up financing	A series of event were organised, but there was no information provided on whether these generated ideas that may qualify for financing.
1.7.	Development of national design codes and/or related guidance documents to simplify the process of project development and empowering the private sector and communities to do so	√
1.8.	GCL established as a self-standing legal entity, including a revised, strengthened, updated and finalized business plan, required statutory documents, Board of Directors as well as required staffing and premises	√
1.9.	Development of suite of services <sup>28</sup> and enhanced capacity of GCL to deliver these services	Primary focus on services and capacities related to energy efficiency and renewables, and general project management functions.

Since indicator 4 is connected to confirming that all the outputs under Outcome 1 are completed, this indicator can only be judged as being partially achieved. Although there is some substantial progress in some of these, there are some outputs which have not been reached, have been accomplished partly, or there is not conclusive evidence of them having been completed. For instance, the on-line network/roster<sup>29</sup> is a list of less than a dozen experts with no advanced functions and the suite of services seems to be limited primarily to energy efficiency and renewable energy issues. It is also unclear whether these services are provided for a fee to paying customers and, if they are, there is no clear information on how to apply, what are the services and what are the fees. There is very wide acknowledgement on the GCL's expertise on EMIS.

The demonstration project and the Fast Track Challenge Programme projects are the core of Outcome 2 with three indicators and four outputs are reflected in Table 11. Within the demonstration projects, two were still under implementation when the TE was taking place – the Waste management demonstration project (plastic collection through RVM) and a demonstration project in initial stages with the National Botanical Gardens on the establishment of a nursery for the project of multiannual seedling for green spaces in the municipalities (classified under the urban land use and planning area).

Table 11: Progress towards Outcome 2

Component Outcome	Outcome Indicator	End of Project Target	Status at evaluation
OUTCOME 2. Successfully completed pilot/demonstratio	<u>Indicator # 7</u> The extent, to which integrated and participatory planning	At least one zonal plan finalized based on an integrated and participatory planning methodology suggested by the Green City Lab and having a balance	GCL performed energy audits for 6 public buildings: 4 from the Sângerei District, and 2 from the Cantemir District.

<sup>26</sup> Partnerships were to include city authorities, relevant line ministries, public utility companies, academic and other research and educational entities, expert associations and other CSOs, home-owner associations, private sector companies, local and international financing entities and other ongoing projects as well as international experts and expert institutions, some of which may also become a part of GCL's international advisory and coaching team.

<sup>27</sup> These events included seminars, workshops, hackathons, green city "jam sessions" and others.

<sup>28</sup> Services may include: energy audits, design and delivery of training courses, surveys and public outreach events and campaigns, various project management, procurement, design and financial structuring services, project impact monitoring, reporting and verification and others.

<sup>29</sup> <https://greencity.md/expertii-nostri/>

Component Outcome	Outcome Indicator	End of Project Target	Status at evaluation
n projects with related monitoring, reporting and verification of the results in the areas of: i) integrated and participatory urban land use and mobility planning; ii) residential building energy efficiency and renewable energy use; iii) low carbon mobility; and iv) resource efficient waste management.	methodologies are taken into use in updating the Chişinău General Urban Development Plan (PUG) and related zonal plans, including gender disaggregated data on the number stakeholders engaged into the process.	participation of both male and female stakeholders without a single gender exceeding a share of 60%.  Mid-term target: working together with the municipality on the PUG.	GCL performed energy management services contract for 6 localities from Moldova: 5 public buildings from Cantemir Municipality, 6 buildings from Sireţi, 5 buildings from Vorniceni, 4 buildings from Mereni, 4 buildings from Lozova and 8 buildings from Budeşti.  A Guide of Green Spaces for Chişinău Municipality is under development.
	<u>Indicator # 8</u> Status of the pilot/demo projects for each of the targeted subsectors	Completed construction of at least one pilot/demo project from each targeted subsector (i.e – at least 4 projects in total) with MRV data on the achieved GHG savings for at least one-year operating period.  Mid-term target: completed for at least one, which was achieved	By the 30 June 2023, the following demo projects are completed: •Urban mobility and alternative transport demo projects •Energy efficiency in residential buildings •Renewable resources use, Photovoltaics projects  <i>Reported cumulative amounts to 1442,4 kilotons CO<sub>2</sub>eq over 20 years<sup>30</sup>.</i>
	<u>Indicator # 9</u> Number of projects supported by the “Fast Track Challenge Program” with monitored gender disaggregated data on project beneficiaries and their contribution to supporting gender equality.	At least 10 projects with monitored, verified and reported data, as applicable, on the achieved GHG savings, of which at least 3 projects having also a strong positive impact on supporting gender equality  Mid-term target: at least 3 projects, a total of 10 were implemented reporting a total 121 tones CO <sub>2</sub> eq. savings over the next 20 years.	By 30 June 2023, 15 initiatives were supported under the Fast Track Challenge Programme, 14 of them were successfully completed and one closed.  GHG savings achieved were not possible to verify <sup>31</sup>  5 projects with strong positive impact on supporting gender equality

After repeated requests for information on how the calculations of total GHG savings were estimated and multiply referrals to the consultancy MRV report, it was stated that the figure for indicators three and eight were arrived at by multiplying the registered results to the specific period of time. There is a serious flaw in this approach. For instance, for the solar panels, the solar panel generation is estimated based upon data

<sup>30</sup> TE team reviewed all documents at its disposal (MRV report, GEF Tracking Tool for GEF6 CC Mitigation Projects, ProDoc Annex F: GHG Emissions Reduction Analysis (pages 65-74) and Revised Methodology for Calculating Greenhouse Gas Benefits of GEF Energy Efficiency Projects, GEF Scientific and Technical Advisory Panel) and could not find a correlation between the MRV report produced under the project and the final calculations provided. After repeated requests to the PMU, it was stated that the results were obtained upon ‘multiplying the registered results to the specific period of time’.

<sup>31</sup> It was not possible to verify the GHG savings calculation from the reports of the FTCP projects which were made accessible to the TE team. Moreover, in some discussions the view was expressed that such savings were not called for by the ProDoc. The reports on FTCP and their implementation were based on checking ‘number of installations’ and financial information (money spent) and the TE team hopes that the analysis of the success of projects, their impact and possible replication are to be discussed in the knowledge products to be prepared prior to Project closure.

ranging from five to eight months. The months of June and July are not included in any of the cases – and August and September in only one case. Calculations for the energy efficiency measures in the residential buildings should include information on the reduction in the use of electricity of the residents of the buildings involved in the demonstration, as these are those that can be considered the savings attributed to the Project investments. There are many calculations contained in the document not relevant to reaching providing information upon the basis of which GHG savings for the demonstration project can be calculated. It would be advised to engage a consultant experienced in calculation of GHG savings based on available data and emissions factors.

The demonstration project on EV was the first to advance in project implementation. In the February 2019 Board meeting it was determined that the MEI would be responsible for the implementation of this pilot and already in the next Board meeting in July 2019 the members spoke of the installation of the first EV charging station. Despite the apparent success of this pilot which was highly recognised by many over the course of the evaluation, the PMU states that this was an infrastructure development project with the main indicator as ‘chargers installed’. As a result, 60 stations were installed of which only 33 were financed by the Project. This indicator alone would warrant exploration on what made this partnership work with the private sector so well. Moreover, the EV Point company has continued installations and currently there are about 200 charging stations in Moldova. The SGC Project supported awareness raising with four electric car marathons and other media events organised. The knowledge product is to be developed by the end of the Project.

Implementation of the pilot project for drafting the Zonal Plan for the River BÎC was abandoned in mid-2020 due to the fact that co-financing was delayed from the Government of Romania to the extent of 10 million. This was then switched to plans to co-finance creation of the Cadaster and Strategy for Green Spaces’ Development from the project. However, this did not materialize either and thus the project again re-purposed this pilot to Garden Botanica.

The application forms for the Fast Track Challenge Programme project required the applicants to provide information on several things that would be useful for measuring the impact of the Project and also in assessing the replicability of these initiatives.

Among other information required was information on:

- Area of the company’s activity, where the options provided were the areas of intervention planned for the Project: urban mobility (UM), waste management (WM), energy efficiency and renewables (EE&R), and sustainable urban planning (SUP);
- What type of innovation the project was introducing (product, process, marketing, organisational);
- Impact – applicants were required to explain how the initiative would contribute to four types - social, economic, environmental and gender-related. For each of these the application guide provided quite a lot of information on formulation;
- Sustainability in relation to economic, social, environmental and gender;
- Replicability explaining the initiative’s potential in replicability and specifically in third party replicability.

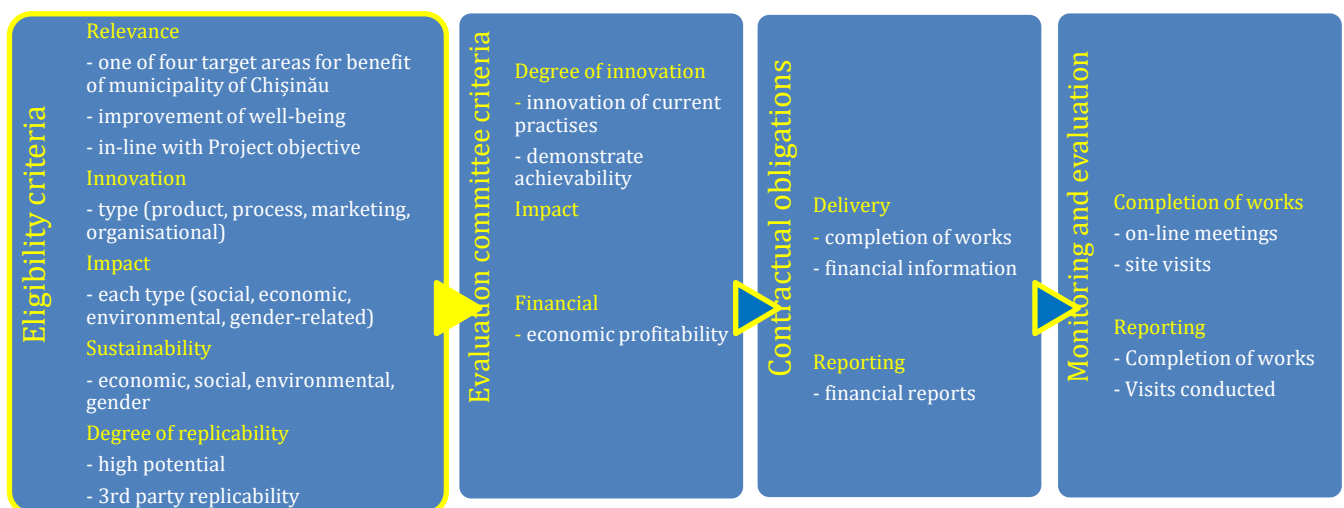


Figure 5. Application, evaluation and implementation process of the FTC Programme

The application guide notes that ideas need to demonstrate a clear impact which is properly described in the proposal and includes methods for impact evaluation. This is important as the FTC Programme initiatives were required to contribute, as stated in Indicator 9 to GHG savings and to gender equality. Thus, it was good to include this as part of the eligibility criteria for the approval of these projects. It would be logical for these criteria to have been reflected upon throughout evaluation and implementation process.

The evaluation of the applications involved three phases: Phase I: Technical evaluation; Phase II: Financial evaluation and Phase III: Presentations before the Evaluation Committee. The first two phases looked at different aspects of the application.

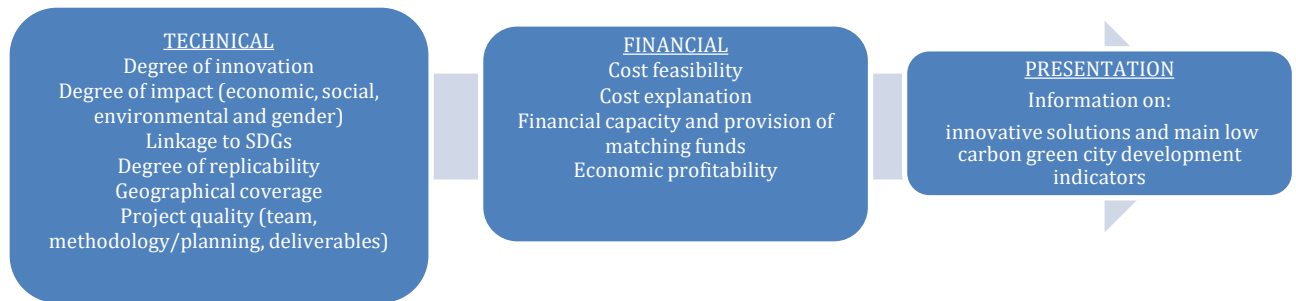


Figure 6. Phases of the FTC Programme evaluation process

The TE evaluators note that the evaluation of the applications are to consider various aspects of the applications and their ability to conform to the Project objective and ability to deliver on aspects of impact, innovation, sustainability and replicability.

Further in the implementation process, in order to confirm that the initiatives are implemented according to plan, it is important to continue monitoring of not only delivery of works (on the output level) and financials (invoices and other supporting documents), but also the delivery on indicators related to the impact, replicability. This would include the formulation of implementation arrangements in the contractual obligations (both for implementation and reporting requirements), and in the tasks of the monitoring and verification of the implementation of the initiatives which directly link to indicators needed to determine the contribution of the FTCP to the Project’s contribution to GHG savings and gender-related, as well as other aspects.

There are some issues in the evaluation process that leads one to believe that the evaluation and selection approach were not fully synchronised. For instance, in the application forms, applicants are asked to indicate the potential sustainability of the proposal in terms of economic, social and environmental sustainability, as well in terms of its gender perspective. The evaluation grid, however, linked sustainability directly to the Sustainable Development Goals.

Information requested from applicants in the application form for FTCP	Sustainable Criteria from the Evaluation Grid (awarding from 0-10 points from a total 100 points during the Technical evaluation stage)
<p><u>economic sustainability</u>: project is able to support a defined level of economic production indefinitely or on a long-term span.</p> <p><u>social sustainability</u>: project has a positive impact on a defined level of social wellbeing indefinitely or on a long-term span.</p> <p><u>environmental sustainability</u>: project demonstrates ability to maintain specific rates of renewable resource harvest and/or diminish consumption of non-renewable resources on a long-term basis.</p> <p><u>gender perspective</u>: sustainable development pathway established with an explicit commitment to gender equality and seeks to enhance women’s capabilities, respect and protect their rights. Women must have full and equal participation in decision making and policy development to create this pathway.</p>	<p>All four perspectives are linked to Sustainable Development Goals and objectives of the FTCP;</p> <p>Only 3 perspectives are linked to Sustainable Development Goals and objectives of the FTCP;</p> <p>Only 2 perspectives are linked to Sustainable Development Goals and objectives of the FTCP.</p>

Although the TE team appreciates that the scale of these projects may not have warranted such elaborate schemes of the different criteria in relation to the financing available, this should have been considered by the Project during the development of the grant application forms. Rather than asking all initiatives to fulfil all requirements, it probably would have been more realistic (and fruitful in terms of receiving valuable

information for proper assessment of success and prospects for replication) to ask for measurements and data which could be more easily reported against and verified.

All contracts have Annex 1: Requirements for FTCP funded Projects mentioned and it appears this annex is a generic template on the financial and narrative reports required from the FTCPs. Arguably the direct GHG savings share of these projects is very small, however, Outcome 2 indicators call for information on GHG savings. In fact, at least 10 projects must have such savings monitored, verified and reported. UNDP Moldova notes that most of these projects are behavioural or educational projects, but this kind of data is also not collected in the reports of these projects. In order to realistically achieve replication, simple information on the implementation of these small initiatives could help others to determine how to follow and multiply the impact of the SGC Project.

For instance, FTCP project on air quality *Intelligent air quality measurement solution* 5 sensors installed by Orange Moldova JSC (2020) (<https://www.undp.org/moldova/press-releases/air-quality-measurement-sensors-will-be-installed-Chișinău>). It was the first real-time measurement and visual network of air quality in Chișinău and it was arranged that the data would be publicly available. Although this is a small project, it has high potential both for replication within Chișinău (increasing the number of sensors) and beyond (to other urban areas in Moldova). It also holds some possibilities to give data which could be interesting, if added to the national air quality data, in providing a much more comprehensive picture of the parts of the urban area which have higher emissions and thus, provide information for decision-makers on where to strategically take actions to impact mobility practises. It could also be useful to know the number of people who looked at emissions data, and whether this has impacted their behaviour in the urban environment. Other projects could have been asked to survey their customers to obtain information on the relevance of the projects, their impact, usefulness, etc.

FTCP projects had a template with the end of project implementation report evaluation and the project files contained for 14 projects of which one project failed; 16 projects were approved and only 15 contracted. The template was provided in the FTCP Project Guide and contained the following sections: Results as activities implemented, Indicators' compliance information, Long-term benefits, Lessons learned, Number of beneficiaries and gender disaggregated data. Some of the final reports do not contain all the required information and the project monitoring review have not addressed this issue. Data on GHG emissions reduction was not part of the final implementation reports as did not human rights impact one, while the lessons learned section could have been more elaborative in terms of the replication or scaling-up perspective. It probably could have benefited greatly if drafted with the respective areas' experts and the monitoring and evaluation consultant (or at least having them peruse the reports before final approval for vital information).

The Demo Projects did not have a standardized Final Implementation Evaluation Report template. The project documents provided to the TE team contained only Final Implementation Evaluation Report for all projects on the Horizontal Heating System. The latter contained all the financial details, an analysis of the replication opportunities and scaling-up that addressed issues on human rights of the marginalised.

The recommendation of the TE evaluators, is that it is important to use the remaining months of the Project to assess the success and the replicability of the FTC Programme projects. The small initiatives are not so large in numbers (14 in total) that it should be possible to visit each and see if they are still operating (or alternatively at least those deemed successful). From those that are, prepare information on the total costs, what have been the rewards and impacts (both qualitative and quantitative information) and some key pre-conditions for it to be replicated, and information on how.

The application guide notes that ideas need to demonstrate a clear impact which is properly described in the proposal and includes methods for impact evaluation. If such information is available from the proposals, a more detailed preparation of information on how to replicate the successful projects should be possible. This could be useful information tasked to the expert to be contracted in the next months to collate and use for developing the lessons learnt report called for under Indicator 11. It would also be beneficial to include this in the virtual Green City knowledge management platform which is to be sustained after the SGC Project. Due to their size, the low amounts of investment and resources needed, FTCP projects which have been successful in reaching the savings or other impacts for which the GEF financing has been disbursed, provide great potential for small interest groups, communities, and companies to replicate and bring more results to sustainable green cities in Moldova.

Gender equality goals declared in the *National Development Strategy "Moldova 2030"* provide several strategic objectives: Support of young women entrepreneurship, increasing agricultural productivity and

incomes of smallholder farmers through secure and equal access to impacts of production, knowledge, financial services and markets (Objective 1). Moldova aspires at aligning with the EU Gender Equality Strategy 2020-25 of achieving equal participation across different sectors of the economy. The *Strategy for Ensuring Equality between Women and Men (2017-21)*<sup>32</sup> recognised negative disparity for women owning businesses, and climate changes accentuation of women gender discrimination<sup>33</sup> requiring climate adaptation measures towards women empowerment.<sup>34</sup> The Government is currently in the process of formulating a new set of strategic priorities, where the economic empowerment of women is one goal.<sup>35</sup> The *Law 121 on Ensuring Equality (2012)* provides for the adoption of the affirmative measures to contribute to the equality and inclusion of the disadvantaged groups, including on the base of gender.

With some exceptions, the majority of project activities classify as either gender targeted or gender blind as per Table 15. Almost half of the activities and projects' results focused on equality (50/50) addressed the gender differentiated needs and marginalized population targeted. However, the rest of the projects and activities' results paid no attention to gender, no acknowledged differentiated gender needs or marginalized population.

With regard to the Demonstrative projects, Indicator 7 states that their activities to benefit not more than 60% of persons from the same gender that is measured by the gender disaggregated data collected. The achievement of this indicator could not be measured based on the information from the evaluation reports on the Demonstrative projects as this information is not contained therein. At the same time, the balanced participation of both male and female stakeholders without exceeding a share of 60% of the same gender is likely achieved based on the information provided in the project documentation. The project cumulative report implies that women beneficiaries are 57% direct from 35,173 and indirect 60% from 690,000 beneficiaries. The data could not be checked on a project-by-project basis.

Most of the Demonstration projects are gender-blind as they were not designed so. All Demonstrative projects, in the potential replication or scaling-up stage could be made gender-targeted to address the gender differentiated needs. Some of the ideas have been provided already by the gender consultancy as part of the project and others are in the detained individual projects evaluation in the corresponding table.

Most of FTC projects are gender-targeted (7) and one project is gender responsive, all projects describe a gender contributive role, however half of them require initial stage gender appraisal to make them more effective as a contributor. As per Indicator 9, *at least 3 projects having also a strong positive impact on supporting gender equality*, the indicator has been completed as at least half (7) of the projects complied with the requirement. However, based on the final implementation reports, not all FTC projects have collected gender disaggregated data on the project beneficiaries and employees involved, some of the projects have not collected gender disaggregated data and contribution supporting gender equality.

Table 12: Classification of project gender<sup>36</sup> and human rights contributions<sup>37</sup>

	<b>Gender blind</b>	<b>Gender targeted</b>	<b>Gender responsive</b>
<b>Human rights contributing</b>	-Termoelectrica (horizontal heating) -CET-Nord (horizontal heating) - Photovoltaic Panels for Home-owners	-Urban Street Guidelines, Urban Mobility Plan Development -Urban Mobility Plan	-ProKatalyst (FTC, disability, women business)

<sup>32</sup> [https://www.legis.md/cautare/getResults?doc\\_id=99875&lang=ro](https://www.legis.md/cautare/getResults?doc_id=99875&lang=ro)

<sup>33</sup> Also in NDC by Moldova <https://www.climatewatchdata.org/ndcs/country/MDA/full>

<sup>34</sup> The strategy includes the area of intervention 2.6. "Climate change", stating as Specific Objective 1.10: "Adjustment of sectorial adaptation strategies to climate change by including gender equality."

<sup>35</sup> <https://social.gov.md/wp-content/uploads/2022/12/Concept-Program-egalitate-de-gen.pdf>

<sup>36</sup> *Gender negative* (negative outcome aggravating existing gender inequality), *gender blind* (result no attention to gender, no acknowledgement of differentiated gender needs or marginalized population), *gender targeted* (result focused on the equality (50/50) and marginalized population targeted), *gender responsive* (result addressed gender differentiated needs, equitable distribution of benefits, resources, status, rights, yet fail to address the root causes of inequalities), *gender transformative* (result contributed to changes in norms, values, power structure, root causes of gender inequality and discrimination, aim at redefine systems, institutions that created inequalities)

<sup>37</sup> *Human rights neutral* (not affecting negatively, yet not contributing), *human rights relevant* (human rights individual sensitive), *human rights contributing* (advancing individual rights), *human rights transformative* (addressing root causes in a systemic/systematic manner)



	<ul style="list-style-type: none"> <li>- QMS (FTC, used batteries)</li> <li>- LED (FTC, lighting)</li> <li>- 3D Story (FTC, benches)</li> </ul>	<ul style="list-style-type: none"> <li>Development</li> <li>-Strategy and Road Map for extended dedicated public transport lane</li> <li>-Universal Access, Project Line (FTC, crossings)</li> <li>- CIPTI (FTC, eco-driving)</li> <li>- MTD (FTC, scooters)-</li> </ul>	
<b>Human rights relevant</b>	<ul style="list-style-type: none"> <li>-Catalyzing investment in sustainable green cities using a holistic integrated urban planning;</li> <li>-Smart Transport and Mobility Strategy Analysis</li> <li>-Sustainable Urban Mobility Planning</li> <li>- IDomus SRL (Demo)</li> <li>-Photovoltaic Panel systems (Hospital, Elderly)</li> <li>-ABS (FTC, waste)</li> <li>- Redivivus (FTC, glasses)</li> <li>-Novaservice (FTC, metering)</li> <li>-Orange (FTC, air quality)</li> </ul>	<ul style="list-style-type: none"> <li>-Development Strategy for Alternative Transport Infrastructure</li> </ul>	
<b>Human rights neutral</b>	<ul style="list-style-type: none"> <li>-Botanica Garden</li> <li>-Reciclare/Moldcontrol/ABS (RMVs)</li> <li>- Prometeu (FTC, composter)</li> </ul>	<ul style="list-style-type: none"> <li>- EV Point (e-charges)</li> </ul>	

Those projects and activities that have been categorized as gender blind, if replicated or scaled-up, could be transformed in becoming gender targeted by several adjustments described in the tables [Demonstration projects : gender and human rights indicators](#) and [FTC projects : gender and human rights indicators](#) compiled in Annex 0 and based on the gender consultancy recommendations. The effort to make them gender targeted requires incorporation of good practices and improved understanding and management of the differences. Some of the gender targeted projects could be further improved to become gender responsive as explained individually in the corresponding tables.

Overall, a majority of the projects have strong contribution towards SDG 5 (gender equality), SDG 11 (safer cities), SDG 3 (good health and well-being, water basins quality is a factor of illnesses), SDG 11 (inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities), SDG 1 (end poverty), SDG 7 (affordable energy), 12 (responsible consumption/production), SDG 4 (free primary, secondary education), SDG 13 (Climate Action). As reflected in Table 13. Outcome 3 has three indicators and was designed with ten outputs to reach the results.

Table 13. Progress towards Outcome 3

Component Outcome	Outcome Indicator	End of Project Target	Status at evaluation
OUTCOME 3. Knowledge management and M&E to facilitate learning, scaling up and replication of project results.	<u>Indicator # 10</u> Status of the Project MRV system and quality of the data delivered by that	An established MRV system (including EMIS) with open data access and institutional arrangements and agreements in place to continue with data reporting also after the project on all the supported pilot projects and other selected GHG emission sources within the City.	<p>By 30 June 2023, MRV and EMIS system are monitoring the consumption data of 4.5 thousand public buildings from Moldova. The system have consumption data from the last three years. The main energy and water suppliers (Premier Energy, Apa-Canal, Termoelectrica, Cet-Nord, Red-Nord, Apa Canal Floresti) automatically transfer data on energy consumption and other resources to EMIS.</p> <p>The national legislation was amended and started from January 2024, all public authorities have to be connected to a informational system on monitoring data consumption. The agreements with Ministry of</p>

Component Outcome	Outcome Indicator	End of Project Target	Status at evaluation
			Energy and Agency of Energy Efficiency to take over the EMIS's data base is under development.
	<u>Indicator # 11</u> Agreed knowledge management (KM) products and events delivered	The Green City KM platform sustained after the project A lessons learnt report finalized An international end of the project workshop organized	The Green City KM platform is being built as part of the Green City web page.  Experience of Moldova in implementing EMIS was presented at the regional knowledge symposium on "Energy Efficiency of Buildings in the Balkans+ Region", that took place in Belgrade, Serbia, in May 2023, and as well as in five national events in Moldova.
	<u>Indicator # 12</u> Number of EoIs received for replicating the project intervention strategy, specific technical solutions or business models for new projects and/or municipalities.	At least one new municipality and 5 project proponents expressing interest to replicate one or more of the supported interventions.	Ongoing project activities (ex. Citizen involvement platform, Photovoltaics, EE in buildings, Hackathons), EMIS and other technical solutions are replicated in the EU-UNDP Focal-regions project targeting 2 municipalities and in the EU FPI project. UNDP-Swiss Resilient and inclusive Markets in Moldova project are replicating Green Cities experience in organizing hackathons, while EU-UNDP Mayors for Economic Growth Facility are replicating several Green Cities initiatives related to energy efficiency and urban mobility. Green City Lab Moldova replicated the photovoltaics initiative at Carpineni with the financial support of Czech Republic. Green city project experience related to Electric vehicles charging stations replicated by UNDP Ecuador. Success in implementation of EMIS shared with UNDP Armenia.

Within this Component, the PMU in its PIR, reports on many communication activities. In the TE team's view, many of these, although useful for communicating information to the general public on the project outputs (public awareness) and contributing to establishing visibility for the SGC Project and GCL, cannot be considered as knowledge products and learning events. These include:

- GCL Facebook data: 5,8 thousand followers, many of the videos<sup>38</sup> produced;
- Participating in Social Good Summit and Environmental Day in Moldova in 2022 and 2023;
- Information disseminated through GCL Facebook, website, UNDP platforms;
- Promotion of events in media, including social media; over 600 mass-media materials disseminated.

In addition, a donors' meeting to showcase the results of the demo projects implemented within the Green City project was organized in February 2023, with about 70 representatives of diplomatic missions, donors, public institutions (central and local), civil society and private sector.

The SGC Project funded some replications of initiatives which were originally tested in Chişinău were tested further afield with GEF funds in Ungheni and Sângerei districts (photovoltaics) and in Bălţi (energy efficiency building).

<sup>38</sup> Samples of public awareness raising and visibility videos [GC Heating Bălţi .mp4](#), [GC Sângerei ENG.mp4](#), [GCity Sculeni.mp4](#), [Heating Chişinău.mp4](#), [EMIS ENG.mp4](#), <https://www.youtube.com/playlist?list=PLW8tWcbumleAeC-IA3So3m7jXLwJYO1K>

As the Outcome states, these products should be designed to facilitate learning, scaling up and replication. In discussions and comments to this report UNDP Moldova stressed that the lessons learnt report was to be planned for the third quarter of the last year of project implementation. There has, however, not been a collection of lessons from completed activities over the course of the project, and the difficulty of retrieving information from entities that no longer have contractual obligations with the SGC Project has been noted by UNDP several times. Thus, since up until now there has been no systematic assessment of the impact of the results, their sustainability or elements that would allow them to be scaled-up or replicated, indicator 11 and 12 are yet to be reached. There is a lost opportunity to have saved resources in capturing the pertinent lessons and information from engaged stakeholders at the time of implementation, in order to collate and summarise this information now, at the end of the project. Nonetheless, as reported by the PMU, an expert is soon to be tasked with developing the knowledge products and thus, the TE has included recommendations for this significant assignment.

### 4.3.2. Relevance

The relevance of the Project is assessed through examining the extent to which the project's objectives are consistent with the requirements of the beneficiaries (in this case, the municipality of Chişinău and other municipalities and their populations) and the needs of the country. It also reflects upon the alignment of the Project with global priorities such as the SDGs and including those of the GEF, and the policies of key partners and donors. Relevance is to be rated on six-point scale.

In terms of the national priorities, the project objectives are in line with the national development priorities. On 21 September 2016, Moldova signed the Paris Agreement on Climate Change and subsequently ratified it in 2017. The Government of Moldova approved the 2030 Low emissions development strategy (LEDS) and its action plan. LEDS set out intermediary GHG emissions reduction objectives by 2020. The 2014-2023 Environmental Strategy also includes GHG emissions reduction objectives by 2020, which correspond to those of the LEDS<sup>39</sup>.

Moldova's development is driven by the National Development Strategy 'Moldova 2030' and its pillars of sustainable and inclusive economy, strong human and social capital, efficient institutions and a healthy environment. The country's development trajectories fluctuate between stronger ties with Russia and prioritizing European integration.

In 2019, the European Commission presented the European Green Deal, a comprehensive package of reforms aimed at transforming climate and environmental challenges into opportunities to ensure a green transition to a fair and prosperous society. The European Green Deal is relevant for Moldova, given the cross-border nature of environmental problems, offering an opportunity to design nature-based solutions and encouraging sustainable public-private partnerships in the areas of forestry, waste, urban mobility and transportation and to transform agriculture from a carbon contributor to a carbon sink removal mechanism<sup>40</sup>.

When considering alignment with GEF strategic priorities during the mid-term evaluation, it was determined that the Project objective is directly in line with and supportive of the GEF-6 strategic objectives for climate change, outlined in Table 14.

Table 14. GEF-6 Climate Change Strategic Objectives Supported by the Project

Objectives	Outcomes	Indicators
CCM-1, Program 1: Promote the timely development, demonstration, and financing of low-carbon technologies and mitigation options	Outcome A. Accelerated adoption of innovative technologies and management practices for GHG emission reduction and carbon sequestration	Indicator 4. Deployment of low GHG technologies and practices
CCM-2, Program 3: Promote integrated low-emission urban	Outcome C. Financial mechanisms to support GHG reductions are	Indicator 6. Degree of strength of financial and market mechanisms for

<sup>39</sup> <https://eu4climate.eu/leds/>

<sup>40</sup> Independent Country Programme Evaluation: Moldova, UNDP 2022

systems	demonstrated and operationalized	low GHG development
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These are the strategic priorities for GEF in the period from July 2014 to June 2018. These issues continue to be relevant as highlighted in the GEF 2020: Strategy for the GEF.<sup>41</sup> The strategy notes that the GEF seeks to support innovative and scalable activities and to deliver the highest impact, cost effectively. Since the Project was approved, the GEF-7<sup>42</sup> and GEF-8<sup>43</sup> Programming Directions and the approach have advanced, nonetheless the Project objectives remain relevant.

Table 15. GEF Programming directions supported by the Project in GEF-7 and GEF-8

Programming Directions	Objectives	Entry points
GEF-7	Promote innovation and technology transfer for sustainable energy breakthroughs	De-centralized renewable power with energy storage, Electric drive technologies and electric mobility, Accelerating energy efficiency adoption, Cleantech innovation
	Demonstrate Mitigation Options with Systemic Impacts	Sustainable cities, Food systems, land use and restoration, Sustainable forest management
GEF-8	Promote innovation, technology development and transfer, and enabling policies for mitigation options with systemic impacts	Accelerate the efficient use of energy and materials, Enable the transition to decarbonized power systems, Scale up zero-emission mobility of people and goods, Promote Nature-based Solutions with high mitigation potential

The mid-term evaluation considered the alignment of the Project with the United Nations Development Assistance Framework for Moldova (UNDAF) for the period 2018-2022 cited clear linkages between the Project and the UNDAF contributing to Outcome 3 under the UNDAF: “The people of Moldova, in particular the most vulnerable, benefit from enhanced environmental governance, energy security, sustainable management of natural resources, and climate and disaster resilient development.” supporting Output 3.1, “Enhanced use of renewables and advanced energy efficiency”.

For the period following 2022, the United Nations Sustainable Development Cooperation Framework (UNSDCF) 2023-2027 was developed and covers four outcomes: (a) just and inclusive institutions and equal opportunities for human development; (b) participatory governance and social cohesion; (c) enhanced shared prosperity in a sustainable economy; and (d) green development, sustainable communities and disaster and climate resilience.

The CPD for the Republic of Moldova (2023-2027) notes that the Government is seeking to diversify its energy supply, bolster its energy security by enabling a transparent, well-functioning energy market, and strengthen the ability of its social protection system to respond to increased energy tariff. The linkage between outcome 4 of the UNSDCF and UNDP’s programme outcomes on resilience and green transformation is reflected in Table 16.

Table 16. CPD Results Framework Summary

<b>National Priority:</b> Health and Safe Environment	
<b>UNSDCF Outcome 4:</b> By 2027, institutions and all people of Moldova benefit from and contribute to green and resilient development, sustainable use of natural resources and effective gender-responsive climate change action and disaster risk management.	
<b>Strategic Plan Outcome 3:</b> Resilience built to respond to systemic uncertainty and risk; Outcome 1. Structural transformation accelerated, particularly green, inclusive and digital transitions.	
<b>UNSDCF outcome indicator(s), baselines, target(s)</b>	<b>Indicative country programme outputs</b>
<b>Greenhouse gas emissions at national level</b> Baseline (1990): 43.3891 Mt CO2 equivalent Target: 12.448 Mt CO2 equivalent	Output 4.2. Public and private actors are enabled to implement efficient and innovative practices for sustainable natural resource use, climate resilience, low-emission, and green development
<b>Energy intensity</b> Baseline (2019): 0.38 ktoe/mil EUR Target: 0,285 ktoe/mil EUR	
	Output 4.3. CSOs, community-based

<sup>41</sup> [https://www.thegef.org/sites/default/files/publications/GEF-2020Strategies-March2015\\_CRA\\_WEB\\_2.pdf](https://www.thegef.org/sites/default/files/publications/GEF-2020Strategies-March2015_CRA_WEB_2.pdf)

<sup>42</sup> [https://www.thegef.org/sites/default/files/council-meeting-documents/GEF-7%20Programming%20Directions%20-%20GEF\\_R.7\\_19.pdf](https://www.thegef.org/sites/default/files/council-meeting-documents/GEF-7%20Programming%20Directions%20-%20GEF_R.7_19.pdf)

<sup>43</sup> [https://www.thegef.org/sites/default/files/2023-01/GEF-8\\_Programming\\_Directions.pdf](https://www.thegef.org/sites/default/files/2023-01/GEF-8_Programming_Directions.pdf)

<b>Share of land area covered by forest and forest vegetation</b> Baseline (2019): 13,4% Target: 15%	organizations (CBOs) and young people are empowered to actively engage in climate resilience, low emission and green development
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Although the Project will be closed by mid-2024, it is contributing to advancing energy efficiency measures and renewable energy use, and thus remains relevant to UNDP programming in Moldova. In terms of other donors, the new World Bank Group Country Partnership Framework (CPF)<sup>44</sup> for the period from 2023 to 2027 states the intention to support the efforts of the government of Moldova to move to a new economic model.

Thus, taking into consideration all of the above, the relevance of the SGC Project is rated *highly satisfactory*.

### 4.3.3. Effectiveness

A fundamental measure of a project's progress is to review its outcomes and assess the progress against the milestones and indicators anticipated during the project development phase. Effectiveness is the extent to which the project's objectives are achieved. It is also used as a measure or judgement of the merit or worth or any activity and how the major objectives have been fulfilled in a sustainable way and with a positive impact on institutional development.

The Project took actions to actively engage many stakeholders, as reflected in the annual communication plans and the many awareness raising events that were conducted over the lifetime of the project. The Project worked closely with public and business entities to implement the demonstration pilots which are the main projects of the SGC Project. The demonstrations in the area of urban mobility (EV charging points), building energy efficiency (in Chişinău and Bălţi in cooperation with Thermoelectrica and CET-Nord) and renewable green energy planning (installation of solar panels in Sângerei and Sculeni) were successful, and true to the project objective – these pilots catalyzed investment and promoted innovations partnering with public and private sector entities. The EV charging points seems to have been particularly impactful and Moldova has seen a large increase in electric car used since these points were established. The SGC Project decision to bring innovations in building energy efficiency and renewable energy planning to the smaller populations of Bălţi, Sângerei and Sculeni increased the impact of the demonstrations. However, as observed by the MTE, the demonstration pilots selected were “opportunistic rather than strategic, leading to a diffuse portfolio, with resources spread thin”. This is more evident and critical after the establishment of the GCL and now at project closure, as the expertise and competencies of the GCL staff do not cover all capacities necessitated for the qualitative implementation and monitoring of all four areas covered by the pilots.

The demonstration pilots on waste management (reverse vending machines) and urban planning (nursery) are still at the beginning stages of their implementation. The reverse vending machines were not yet opened to the public at the time of the TE, and the nursery works were still underway. Neither of these pilots will have the MRV data on the achieved GHG savings for at least one-year operating period before project closure.

The Project worked actively to try to establish the GCL. It was a difficult task as there were a lot of delays due to various aspects. During the MTE it was stated that there was a “lack of crystal clear vision and consensus amongst all stakeholders on the path forward at the start of the project” and that this caused major delays in the establishment of the Green City Lab. The MTE also states that there were conflicting views within UNDP on the form that the GCL should take. During the TE mission it seemed that even now some view GCL as an energy service company, some feel such status is impossible for an NGO.

A citizen engagement platform was established very early on in the project. Launched in April 2020, this was an excellent output of the project which is still in use today. The Chişinău municipality reflects upon it very positively and it has evolved to cover all complaints and concerns of the community much more broadly than originally intended. As of September 2023, 17 720 requests were submitted, 9 065 of those solved and 2964 currently under examination. Unfortunately, it was not possible to discern the proportion of these that relate to the issues related to the project and the activities of the GCL and there was no data statistics or analysis provided during the evaluation. In terms of visibility, the site [www.eu.chisinau.md](http://www.eu.chisinau.md) appears not to have any indication that it was originally developed under the financing of the UNDP-GEF project. In the opinions of

<sup>44</sup> <https://www.worldbank.org/en/country/moldova/overview>

TE team, this platform, although very useful and certainly producing positive impact on citizen engagement, increases transparency of the municipal governing body and their responsiveness to the population of Chişinău, the platform cannot be considered as the reporting platform which was called for under Outcome 3, indicator 10.

The weakest performance of the Project up to the TE evaluation, was in Outcome 3. The Project did not take a strategic approach to the monitoring and verification of the results and impacts of the demonstration projects and the project funded within the Fast Track Challenge Programme. To date, when discussing with GCL and the Project team, it was apparent that there have not been detailed discussions on how the lessons learned of the pilots will be captured in a way to communicate the results to the public and to stimulate replication by other partners or in other cities/towns in Moldova. The TE team notes that a thorough review of the documents at their disposal, and from reflections gathered during interviews, there has not been a system for capturing lessons learned in the evaluation and implementation of the pilots and project from which the knowledge was to be extracted. Information, that was requested from applicants was not verified and not collected. It will be difficult to retrieve the information necessary for analysis now, however it is achievable.

This aspect of not collecting valuable information over the course of the project is making the final stage less efficient and will probably also impact the project in terms of outcomes, as replication will be difficult to encourage without clear data, analysis, testimonials, and other information which will be difficult to gather and collate from initiatives that are closed and by people who have limited knowledge of the Project and its partners.

Six projects (1 Demo and 4 FTC) have made a direct contribution towards women gender equality in the area of urban mobility and transportation. These provided safer street crossings, safer driving skills and more affordable access to the individual driving by publicly available means and individual cars. These increased women equalities are not short-term but rather mid-term and long-term achievements given the nature of the created facilities, created economic activities. One FTC project has contributed towards linking women-led businesses into the urban city food supply chain thus economically empowering women by example in the mid-term and long-term with the possibility of replication and scaling-up by capitalizing on prior and exiting UNDP other projects.

Energy efficiency projects (both Demo and FTC) have been categorized as gender blind, however, all of them have the potential to adjust and become at least gender targeted and therefore contributing mid-term and long-term towards gender equality. Waste management projects face more of the challenge to become gender targeted given their type of organization and the sector features of barriers of the individually targeting beneficiaries. In this respect some financial instruments for the gender differentiated stimuli are available yet their implementation more difficult.

Given the ambitions of the Project on social (gender-related) and innovation, the effectiveness would be higher if a clear distinction would have been made on the socio-economic, sustainability and impact factors that each demonstration and FTCP project were to achieve, and if a clear agreement was set in the contracts, then later followed up in the assessment and reporting.

Considering the above, the effectiveness is rated *moderately satisfactory*.

#### **4.3.4. Efficiency**

The efficiency of a project relates to how economically the resources and inputs of the Project are concerted to results. The SGC Project implemented an impressive number of activities which covered a broad scope of the country. A map of the activities can be found [here](#) .

One of the most efficient demonstration pilots of the Project is EV charging stations. The pilot was able to be a catalyst to stimulate investment in the installation of charging station network that extends throughout Moldova. At the time of starting the pilot there were reportedly 99 electrical vehicles at the time (2018<sup>45</sup>)

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<sup>45</sup> [https://www.ipn.md/en/number-of-registered-electric-vehicles-has-quadrupled-in-2-years-7966\\_1076322.html](https://www.ipn.md/en/number-of-registered-electric-vehicles-has-quadrupled-in-2-years-7966_1076322.html)

which has risen to 1973 electric vehicles and 31643 hybrid vehicles in early 2023<sup>46</sup>. A media expert interviewed praised the Project for the initiative, as it demonstrated what could be accomplished when stimulation was provided on the market at the opportune time.

The EMIS is another good example of the efficiency the PMU achieved. The basis of the system (software programme) and expertise on implementation in other countries was transferred via the UNDP GEF-funded project “Climate Smart Urban Development (CSUD) Challenge” in Serbia. The use of this product and experience from another UNDP-GEF project with a previous investment from other sources provided savings to the project in the development of the system from the start in Moldova. It provided the opportunity to test and use the programme for data compilation. Through this, there is a clear demonstration of the usefulness of this type of system and the project has collected a considerable amount of data on energy use. Currently, consumption data of more than 5 000 public buildings are monitored through EMIS. With support of the donors Expert Grup and the Netherlands Embassy, GCL has developed energy action plans for 300 public buildings which were identified as being less energy efficient by analysing EMIS data. The data collected is also useful to support the Government in developing public policies in energy management for public buildings. This is a contribution to evidence-based decision-making which is an important additional impact.

The Law 148 on Energy efficiency was edited to provide a regulatory framework which means that an EMIS system of the type established under the SGC Project to be applied in the future. There are discussions on transfer of the EMIS to the EEA, or at least to ensure that data collected by the Project can be used in the further expansion of data collection. It is viewed that, until the capacities of the EEA are built to take over the administration of the EMIS – the GCL can provide this as a service (~ 24,000 Euro annually).

The PMU adjusted work under the COVID-19 restrictions and the additional pressures of political instability, energy crises and the war in Ukraine, managing to deliver in these circumstances and continually adapting to changes, albeit not always in a strategical manner. Difficulties in moving pilots ahead in Chişinău, were transformed in an opportunity to bring benefits to other municipalities in Moldova.

Engagement of municipal authorities, public and private companies, the general public and media has good from the PMU. However, the lack of attention paid in developing communication strategies and taking a more pro-active approach in communicating with national institutions will make the scaling-up and replication of some of the Project outputs difficult. This mostly pertains to results which could benefit from certain advancements in the regulatory framework, thus making scaling-up and replication feasible. This includes matters such as encouraging public-private partnerships and advancing understanding of the extended producers’ responsibility scheme. Without communication on potential impact with the national government experts, and their involvement, a few of the pilots (such as reverse vending machines) will not generate any interest from private entities which may set back any gains made by the project to innovate.

UNDP Moldova’s additional contribution allowed for a 14-month extension of the project. Without this extension, the GCL would have been barely operating for a year and many of the demonstration projects would not have been able to reach their results.

The efficiency of the project is rated *satisfactory*. The calculation of the overall rating in the Guidance states that, where the relevance rating is in the satisfactory range (HS to MS), the overall rating could, depending on its effectiveness and efficiency rating, be either in the satisfactory or in the unsatisfactory range, however the overall outcome achievement rating cannot be higher than the effectiveness rating. Thus, the **overall project outcome rating is moderately satisfactory**.

#### 4.3.5. Sustainability

Sustainability is the continuation or likely continuation of positive effects from the Project after it comes to an end. This also includes the potential for scaling-up and replication. In terms of the SGC Project, the concept of scaling-up and replication was built into its design as discussed in Section 4.3.1. on the progress towards Outcome 3.

<sup>46</sup> <https://www.infotag.md/economics-en/304840/>

This section examines the likelihood of the project outcomes in terms of four types of sustainability: financial, socio-political, institutional framework and governance and environmental. Each type is rated based on a 4-rating sustainability scale.

### ***Financial sustainability***

The financial sustainability of the GCL seems quite secure to continue activities once the GEF assistance ends. There has been a lot of effort made and quite substantial success to mobilise funds for various initiatives. The pool of projects provide an estimation that the GCL will be able to continue its operations for some time. If it continues on the momentum of a good reputation and relations formed over the course of the project, building upon this with professional expertise and in fulfilling its business plan, the confidence in the GCL from partners should grow, which in turn should ensure the financial sustainability not only of its own operations, but also the various initiatives implemented during the UNDP/GEF project.

The payback mechanism developed for some of the initiatives whereby project beneficiaries will pay back funding provided with GEF assistance for improvements in energy efficiency and for installations related to solar panels is part of the financial sustainability scheme for GCL beyond project closure. The GCL has also developed a business plan for continued resource mobilisation.

One risk to financial sustainability is connected to the ability to cover all four GCL areas currently in the business plan. The current capacities to develop, manage and implement initiatives in all areas are not equally strong. This would require, in order to ensure ongoing flow of benefits to all four areas once GEF assistance ends, investment in GCL personnel development and/or outsourcing expertise.

It would also be important for GCL to engage with government authorities to support the creation of an enabling environment for advancing public-private partnerships. Through the analysis of the success of the demonstration projects and reviewing them through the prism of the Project's Theory of Change, it would be possible to identify key issues within the legal and regulatory framework in Moldova, which could support successful public-private partnerships. This would be especially fruitful to examine in terms of the reverse vending machines demonstration project which is not currently designed to bring lasting benefit to the private sector. In addition, during the evaluation private sector partners expressed willingness to increase their share in potential projects in profitable areas such as renewable energy and energy efficiency. These avenues could be explored by the GCL by engaging in discussions with partners established under the GEF Project and facilitating dialogue between the private partners and the public sector.

Thus, the financial sustainability is considered **moderately likely**.

### ***Socio-political sustainability***

The political instability in Moldova and its effect on the project implementation has been mentioned throughout the report. The situation will probably not change significantly in the upcoming years which does place some doubt on the socio-political sustainability of the SGC Project and its outcomes. There are enough outcomes rooted in stakeholder groups in society, and the GHG savings in several of these initiatives give some confidence, that these results (energy efficiency in buildings, solar panel installations in the hospital and in the elderly placement centre) will not be impacted by political instability.

In discussions with the GCL leadership on their clients, there was a perception expressed that the main duty is towards the energy companies Thermoelectrica and CET-Nord with which the GCL has contractual obligations. Considering the socio-economic element of the SGC Project, it would be favourable for the GCL to perceive their clients in those who are paying for the electricity. This would make it possible to manage any risks that may occur in securing project outcomes in these apartments through inability to pay, as energy and other prices may continue to increase, thereby subsequently mounting pressures in these communities.

As discussed in section 4.3.1 *Progress towards objectives*, the PMU has not utilized opportunities over time to collect and disseminate lessons learned. The focus has been on implementation and not on capturing the elements which have led to the success (or not) of the demonstration and FCTP projects. In meetings, the PMU and UNDP Moldova assert that it was planned to prepare knowledge products at the final stage of the project. Although it is planned to transfer all Project knowledge to the GCL, one cannot ignore that the transfer of the more successful aspects directly to potential partners who could replicate initiatives, may have contributed to better formulation of the lessons and, potentially, contribution to the enabling environment as well.



There seems to be a genuine interest from many different stakeholders in the continuation of GCL services. Overall, GCL is seen as credible and as a good partner who has the potential to bring development funding into communities in Moldova.

In terms of gender-related results achieved for the FTCP, the results are judged as medium-term.

### ***Institutional framework and governance sustainability***

Since the Project primarily focussed on the part of the Theory of Change relating to the activities related to the section ‘implement’, there are some risks to the institutional and governance sustainability. The success of the GCL is instrumental in providing institutional sustainability and, although there is some evidence that the GCL has established a good basis upon which its reputation and impact on innovations in energy efficiency and renewables can flourish, a lot remains to be done to capture the implementation success of the Project before it fully closes. The change in the membership of the Board of the GCL could present an opportunity to provide more security in institutional sustainability – through assessment of how UNDP leaving the Board will impact the GCL and what partners will be the most effective in compensating for any gaps left by UNDP’s exit. For instance, partnership with a research knowledge centre, such as the Technical University, bringing in another donor; each would provide different assets to the Board.

As noted in the UNDP CPD 2023-2027, through collaboration with UNDP and other donors, Green City Lab can contribute to the CPD as a partner with international financial institutions, think tanks, academia and the private sector to create new solutions and scale up successfully tested ones to reduce greenhouse gas emissions in the most energy-intensive sectors, transboundary water management and biodiversity protection. This will depend on the GCL’s ability to expand their current pool of expertise (primarily focussed on energy efficiency and renewables at present).

Currently there is a restructuring of the ministries and their subordinate institutions. Since several Project initiatives (demonstration/pilots) are related to contractual commitments between the GCL and institutions subordinate to ministries (the hospital will revert under the Ministry of Health, the National Botanical Gardens to the State University of Moldova, the elderly placement centre to the Ministry of Social Affairs), there is a risk that the restructuring could have an effect on maintenance and implementation (in terms of the nursery project which is not fully implemented) of these project in the future.

The Energy Management Information System (EMIS) is one of the biggest successes of the Project. Although the current Minister of Energy is very eager to use it for further development, there is a risk that this may not occur. In 2020, the MoEI identified their special interest and intent, that the tool would be transferred to the Energy Efficiency Agency, and draft national legislation contains some obligations for the energy resources’ suppliers to report data about resource consumption.

The waste management issues within the project have the least potential in terms of continuation of benefits. There is no sound framework for public-private partnerships in place, and the regulatory framework for the extended producer responsibility, although established, does not yet have the secondary regulatory framework in place that would encourage its practical implementation. The weak knowledge of the MoENV on the few activities implemented on waste issues in the Project due to their passive Board status make it doubtful that there will be interest in any lessons that may evolve from their implementation. Since this project was conceived as a GEN1 project, there were no activities anticipated for institutional change to systematically address gender equality or HR concerns.

Therefore, the sustainability from the perspective of the institutional framework and governance is rated as **moderately likely**.

### ***Environmental sustainability***

The SGC Project design anticipated that it would contribute to SDG #12 and specifically the targets relating to sustainable management and efficient use of natural resources (Target 12.2.), sound management of chemicals and waste (12.4) and reduction of waste (12.5). Although there was minimal engagement on targets 12.4 and 12.5, the Project contributed significantly to sustainable management and efficient use of natural resources through the promotion of renewables and efficient energy use.

The investments made during the Project do not present any substantial threats to the environment.

The environmental sustainability of the project is rated **likely**.

### 4.3.6. Country ownership

Overall the country ownership was fairly strong and it was highly relevant for the implementation of Moldova's national agenda on climate change and energy efficiency as discussed under section 4.3.2 *Relevance*. Local authorities, especially the Chişinău municipality took a very high interest in the project outputs and increased its engagement over the course of the project. National authorities, however, although interested in some of the activities, fluctuated in their interest and active engagement. The Ministry of Environment which is also the GEF OFP, took a particularly passive role. The demonstration project on waste management, which is most directly related to the MoEnv only began in 2023 and has not yet been implemented to provide a basis upon which policies could be adjusted to its objectives. The Ministry of Energy does expect to modify its framework on energy efficiency issues to require establishments to participate in the EMIS which was introduced into Moldova by the SGC Project.

### 4.3.7. Gender equality and women's empowerment

The project has made internally a substantial contribution towards compliance with the gender equality criteria. Its gender consultancy advised with the periodic reports, including gender analysis of the project and GCL gender mainstreaming strategy and gender action plan. These elements show project consistent dedication towards the implementation of the project objectives. UNDP ranks project as GEN1 or some contribution to gender equality. Gender consultancy facilitated transformation of the project activities and actions on the general scale evaluation (GRES)<sup>47</sup>. One example was the project gender strategy elaborated by as part of the project<sup>48</sup> represents a commendable effort of incorporate gender responsive actions in project communication efforts (gender differentiation, gender sensitive examples and women profiling) and in each project area of activity:

- *Transport, mobility* (gender differences in transport projects, driving perception of men, public transport accessibility, affordability and ownership for women);
- *Energy efficiency* (gender sensitive needs assessment and respective accessibility, energy accessibility, affordability, risks are gender sensitive; women adverse impact of energy production, use in particular affected by poverty);
- *Buildings* (women vulnerability and particularly elderly women in energy efficiency projects, affirmative measures with local authorities to address women vulnerabilities in thermal isolation and energy efficiency projects),
- *Waste management* (waste and collection affects differently women and men, particularly health, social protection therefore actions should differentiate, waste depositing impacts adversely).

The project gender consultancy recommended collection of gender disaggregated data and disability rights indicators, mainstreaming gender actions and complimentary actions<sup>49</sup> in:

- *urban mobility* (parents'/women and children and persons with disabilities rights planning; gender-sensitive case studies profiling, from "gender neutral" to "gender sensitive");
- *energy efficiency* (gender desegregated data and on persons with disabilities consulted beneficiaries and decision-makers, from "gender neutral" to "gender sensitive");
- *waste management* (labor and employment gender desegregated data by districts, informative actions reaching women and men, area leadership gender disaggregated);
- *low carbon mobility* (private transport owners and drivers gender disaggregated data, bio transporters and permit holders' gender disaggregated data, feasibility study for 5 Chişinău ultra-center districts).

In the context of green economy transformation, a set of recommendations<sup>50</sup> imply: integrating gender assessment tools for the green transformations, integrating gender dimensions into local strategy addressing gender gaps, conducting preliminary gender analysis, gender sensitive recruitment, promoting gender-balanced participation in activities, involving gender-specialized civic organizations, developing gender specific recommendations for municipal authorities.

<sup>47</sup>Gender Results Effectiveness Scale, <https://erc.undp.org/evaluation/documents/download/8794>

<sup>48</sup>Gender Consultancy Report #2, (7.2021)

<sup>49</sup>Gender Consultancy Report #3 (11.2021), #5 (11.2022), #6 (9.2022)

<sup>50</sup>Gender Consultancy Report #4, (7.2022)

### 4.3.8. Cross-cutting Issues

The SGC Project was designed to cover several SDGs. Of those the project had positive effects on local populations in terms of bringing solutions to communities for affordable, reliable and sustainable energy (SDG #7). With the energy crisis and the war in Ukraine, reliable source of energy and use of renewables for this purpose is a sustainable option to make energy more accessible and less susceptible to market prices and external supply chains.

The FTC programme promoted the development of small projects that have the potential to stimulate growth of small businesses<sup>51</sup> (SDG #8) and the GCL in the future could assist in helping to attract finances to further investment in energy efficiency and renewables.

In terms of human rights contribution and compliance, the project has not been envisaged as advancing human rights, yet making the contribution to the improved lives of the marginalized and vulnerable groups. The project has not developed, similar to the gender focus, the human rights focused approach and therefore the consistent relevance and contribution to human rights has been in some regard of the project activities. However, most of the municipality urban mobility polices have been developed with the wide participation and consultation and with the needs of the persons with disabilities and the vulnerable groups in mind. Almost half of the projects contribute to advancement of targeted groups right to participation in decision-making, vulnerable and marginalized groups (persons with disabilities, the elderly, households with women with children, children, etc.) equality and inclusion into society. No projects and activities could be classified as human rights negative.

### 4.3.9. GEF additionality

The outcomes of the project can be clearly attributed to the GEF contribution. Without the initiative of the GEF project, it is unclear when some of the innovations would have been initiated.

As referred in the sustainability section, environmental sustainability and financial sustainability are deemed likely, whereas socio-political and institutional sustainability less so.

Out of the six<sup>52</sup> areas of GEF's additionality, the SGC Project has strongly contributed to Financial and Innovation additionalities. Upon confirmation of the GHG savings – Specific Environmental.

### 4.3.10. Catalytic/Replication Effect

The catalytic role was instrumental in the Project design as the main objective is to fulfil this role to advance the concept of sustainable green cities in Moldova. Scaling-up and replication were also built into the design via Component 3.

The project has had a prominent catalytic role in Moldova demonstrated through newly initiated projects and activities supported by various donors:

Czech-UNDP Partnership: implementation of a smart city platform in CM, and dynamic traffic control and intersection coordination in CM, and thermo-energetic rehabilitation measures of the temporary centre for refugees from Ukraine/boarding school from Carpineni

Russian Trust Fund: development of Street lightning norms according to international norms, and Development of Roadmap for establishment of a Street lightening certification laboratory

IKI project: improving energy efficiency of the global building supply chain industry and its products  
Enhancing national capacities to develop and implement energy efficiency standards for buildings in the UNECE region

EC project “„MOVE IT like Lublin” – a Chisinau public transport sustainable development initiative”

EU-UNDP Project “Addressing the impacts of energy crisis and initiating solutions toward energy security and addressing energy poverty in the Republic of Moldova (FPI)”

<sup>51</sup> There was no data collected by the Project on the sizes of the businesses and their potential growth based on the FTCP.

<sup>52</sup> Specific Environmental, Legal/Regulatory, Institutional/Governance, Financial, Socio-Economic, Innovation

Local budget funded “Inventory and establishment of the green space cadaster in Chisinau Municipality”

Rolling out Energy Management for Public Buildings at National Level in the Republic of Moldova, implemented by Green City Lab Moldova in partnership with Expert-Group NGO with financial support of Netherlands

Sustainability and climate resilience of Moldovan SMEs, implemented by Green City Lab Moldova with financial support of USAID

Project on analysing the public perception on climate changes problems, implemented by Green City Lab Moldova with financial support of Soros Moldova Foundation

Project on assistance for operationalization of the private sector partnership platform for Moldova’s energy sector, financed by USAID (MESA).

Some replication has been achieved within this project as reported under Outcome 3, however one can expect that, if the GCL will prepare useful knowledge products and disseminate these strategically among key partners, that scaling-up and replication can continue after completion of the SGC Project.

As of elaboration of the TE report, there was no exit strategy prepared or made available to the TE team. The TE team was also notified that that knowledge products will be developed during the SGC Project’s final months.

#### 4.3.11. Progress to impact

As discussed in the section 4.3.1. *Progress towards objectives*, it is difficult to assess the environmental stress reduction due to the fact that it was not possible to ascertain how the GHG emissions were calculated based on the documents made available to the TE team. One can assume, through the review of the various projects and the projected GHG savings where those were available, that the completed projects reach GHG savings to a certain extent in terms of a reduction in the use of energy and a transfer of energy use from a fossil fuel, to a renewable energy source (mainly solar).

Discussions with PMU and UNDP Moldova reveal that the project was not focussed on the enabling environment aspect of the Theory of Change designed for the Project in terms of changes in policy or regulatory frameworks. The Project focussed on capacity building within the GCL through the activities under Component 1. Knowledge skills and infrastructure have been contributed to by the Project considerably in the area of electric vehicle charging stations. Also, in terms of energy management systems, the EMIS will continue to bring impact to the country of Moldova as the Ministry of Energy transfers the knowledge currently based in the GCL to the Ministry’s affiliate institutions. The expansion of the EMIS approach in public buildings and on the national level will bring long-lasting impact in the energy sector and most-likely resulting in reduced public spending on energy.

## 5. Main findings, conclusions, recommendations and lessons learned

The challenge of catalysing investment in a politically unstable environment such as Moldova was bound to be difficult, however it was further exasperated by the COVID-19 epidemic, the energy crisis and the war in Ukraine. The Project was tasked to work in innovation which lends itself for the need to experiment, as well as the risk that testing does not always end in success.

Overall, the findings are that the SGC Project had very ambitious goals for making progress in sustainable green cities in the Republic of Moldova. The focus was on Chişinău municipality and the PMU managed to go beyond the capital city in bringing energy efficiency and renewable energy projects to other urban areas as well.

The demonstration projects were the main focus in providing a catalytic effect. A brief overview of their success in terms of transformative nature for Moldova is provided distributing each project in one of three categories in terms of the level the project has played as a catalyst. *Transformational* for demo projects with an impact in transforming the environment in the particular area of innovation; *contributed to transformation* for those that may have had a transformative role, and made some changes and/or developments with the innovation; *attempted* in the cases where the initiative was not successful in providing a catalytic effect:

Area of innovation	Urban mobility	Urban planning	Waste management	Energy efficiency		
				Horizontal heating systems	EMIS	Photovoltaic panels
	CM strategies and	Botanica Gardens*	Reverse Vending Machines*	Horizontal heating systems	EMIS	Photovoltaic panels

Catalytic role	policies on urban mobility					
Transformational	✓	TBD		✓	✓	
Contributed to transformation						✓
Attempted			TBD			

\*Demo projects still under implementation at time of TE and thus provisionally classified based on scope and activities.

Among the two pilots not yet fully implemented at the time of the TE, the urban planning project demonstrates potential to be transformative. Municipalities will have a source of climate-resilient, perennial and evergreen species which can be used for green spaces, replacing annuals which create biomass waste for the municipalities and incur more costs in re-planting (purchasing products every year and labour).

The Green City Lab was founded, albeit some years later than expected, but within that short time, with a strong leader and enthusiast at the helm – achieving considerable respect in the community. The GCL Board members are interested in continuing work with GCL and see a lot of potential, but also note the important role UNDP had on the Board. The GCL has been working with several stakeholders. In terms of feedback from clients, however, GCL has primarily focussed on its relations via the contractual obligations. It would be useful to develop a method for getting feedback (systemically) on services the GCL provides (including those that are extended to members of the public through the loan scheme), and to assess what services are in the highest demand currently, and how that will change in the future. This should be based on the interests of the GCL and its founders (supply) or on the scale of investments / capacity constraints on available expertise in Moldova (demand).

The SGC Project, however, was insufficiently strategic in its approach in the project implementation in order to make transformation in urban planning and waste management. It would have been fruitful to draw lessons on success factors from and evaluate the early positive transformative results in energy efficiency and urban mobility areas. The TE confirmed MTE observations that the selection of demonstration activities was opportunistic rather than strategic. In addition, the TE found communication activities focused on awareness raising on the activity level, opportunities for developing knowledge and learning during various stages of implementation were not exercised, data was requested in demonstration and FTCP applications which was used in selection and for reporting, but there was no follow-up on whether this information was provided before closure and final payments.

In autumn 2021, an Independent Country Programme Evaluation: Moldova<sup>53</sup> was conducted to capture and demonstrate evaluative evidence of UNDP contributions to development results at the country level, as well as the effectiveness of UNDP strategy in facilitating and leveraging national efforts for achieving development results. The report makes two recommendations that almost directly match observations made by the TE evaluation team:

- UNDP should further strengthen its policy advisory work by providing strategic, practical and actionable policy advice to the Government (and in case of the SGC Project – to the municipality of Chişinău) and better embedding the use of innovations into its policy work to advance institutionalization and scale-up.
- UNDP should strengthen the linkages between its programmatic and project-level theories of change, ensuring that they are aligned and contribute to changes identified in the Country Programme Document. UNDP should strengthen its monitoring, evaluation and reporting system to focus on results, so that the measurement of outcome-level results becomes an integral part of monitoring and evaluation culture and is undertaken systematically.

Some of the demonstration projects have transformed into pilots with much less ambitious indicators to be met than planned. This has been due to various circumstances; the two demonstration projects that have not yet been fully launched (Reverse vending machines and nursery) may not reach results in the time that remains.

There was no financial audit conducted on the Project as planned in the ProDoc, however UNDP Moldova noted that an audit for UNDP Moldova 2022-2023 projects will take place in 2024. Considering the nature of

<sup>53</sup> <http://web.undp.org/evaluation/evaluations/adr/moldova.shtml>

the project in terms of number of transactions and number of individual ‘contractors’, a financial audit once in the lifetime of the SGC Project is advised.

It was not possible to verify the calculations of total GHG savings. The TE team was repeatedly referred to the MRV report which has been thoroughly reviewed and, although it does contain many calculations, some of these cannot be used as a basis upon which to calculate GHG savings. If there is interest to have proper estimates, it is advised to engage a consultant to make calculations based on available data and emissions factors.

The TE team raises concern over the method by which the grants were allocated in the SGC Project. In terms of their administration, the financing granted within the demonstration projects are managed as loans, which, in terms of the UNDP Project management guidelines, the GCL non-profit status, the human rights impact considerations in terms of vulnerable groups, as well as in the aspects of clear identification of contractual relations between parties are questionable.

## **CONCLUSIONS**

The GCL is viewed in many ways:

- Support to receive funding for projects in municipalities (financing/lending institution);
- Expertise to implement projects and initiatives (consultancy and expert services, including energy audits);
- Support to civil society, stimulate start-ups (advocacy work).

This, for the UNDP/GEF project can be viewed as an outstanding accomplishment, as the Project (and the GCL) was able to deliver on many different things for different interests and stakeholders. The GCL became publicly recognisable with a sound reputation. One of the underlying issues as the GCL develops is that its success will be measured by its ability to be the facilitator to build the capacities of others (public institutions, NGOs, small and medium-sized businesses). Other organizations (NGO, consultancy firms, implementing agencies and others) may see GCL as a competitor more and more and GCL will, in order to keep focus on the role of catalyst, need to exit or down-scale in areas where and when other stakeholders can fill the previously-existing gaps.

Due to the situation in Moldova and the energy crisis, the Project (and GCL) has taken the opportunity and focused on energy efficiency and renewable energy resource issues, both in terms of pilots and also in terms of the development of the roster of expertise and future programming. The TE team suggest that the GCL re-assess their current capacities and interest to continue focussing on the role of catalysator. If this role is to continue, then the GCL might need to re-invest finances gained from projects into building their expertise in areas where it will be vital for Moldova in the near future in the four policy areas.

Energy efficiency in public and private buildings received considerable attention and a sizable contribution from the project via the demonstration projects and FTCP projects establishing good practices and promoting decision-makers to take on board good practices. Support for the horizontal heating in private block of flats projects carried out in partnership with heating supply companies and in cooperation with Homeowners Associations is a good practice employing earlier learned key success factors (partnership with private, civic and other partners, understanding existing demand and spreading media awareness) for scaling-up and influencing central decision-makers for institutionalising it through a dedicated policy. The EMIS project has emboldened authorities in streamlining the effort to more efficient and informed public buildings management. GCL is expected to contribute to the remaining challenges: complimentary actions to improve the energy efficiency of buildings, energy consumption, more efficient energy production and delivery, better informed consumers behaviour, etc.

Waste management is a complicated issue worldwide to resolve in an innovative manner and Moldova can expect large investment in waste solutions in the future. Without good examples of public-private partnerships, any innovation in this area will most likely fail. In addition, partners in Moldova will need to build their

capacities in specific fields to be able to comprehensively assess offers from investors. One such example is the current interests from outside Moldova to look at waste-to-energy solutions. Calculations of different scenarios of the development of consumer practises and behaviours need to be made and considered together with Moldova's commitments within the EU Association agreement with Moldova<sup>54</sup>. The country will need to increase the reduction, re-use and recycling of waste which, if not estimated into configurations of investments in waste-to-energy technologies, can lead to very inefficient processes and inability to payback investment.

## **RECOMMENDATIONS**

As of the TE, the SGC Project did not yet have an exit strategy and the GCL in several aspects is still very reliant on the PMU and UNDP Moldova. The development of an exit strategy and the inclusion of specific strategic, operational and administrative actions within this strategy is essential. Cited below are some of the issues which the TE team have identified as important to consider during the development and implementation of the exit strategy; undoubtedly there may be more.

The GCL Director and a number of staff members are clearly not yet able to be fully independent from the capacities built up in the PMU and the support provided by the PMU and UNDP Moldova. It is essential for the institutional, financial, governance and socio-political aspects of sustainability to develop an exit strategy for the SGC Project and for UNDP Moldova from the GCL as Board member. As part of this, and to inform the GCL Board members, it would be useful to conduct a brief analysis on the added value UNDP and the PMU has provided the GCL.

Contracts for receiving payment for the repayment of the grants provided for the solar panels in the Sângerei hospital and the Elderly Placement Centre were based on an exception for 'self-autonomous' municipalities. Since both institutions will, according to promises of restructuring, now be under line ministries, this exception may no longer be valid.

Over the course of discussions with the various stakeholders, as well as the key players – the GCL, PMU, UNDP and GCL Board members, there is not an agreed way forward on the composition of the Board. UNDP Moldova is clear on its intent to leave the Board and thus the Board membership should be expanded and diversified. At the same time, the role of the remaining (and potentially new) Board members should be strengthened. The GCL does not have a clear concept of their role in transformation in the four areas included in their scope. Since the Project and UNDP hold part of the knowledge on lessons learned that should be considered as the GCL and its founding members move forward, they should provide input before they leave the Board room.

There needs to be a discussion on the future of the GCL, scenarios for the Board, review of the GCL Business plan and discussion on the four areas of intervention and based on assessment – open the invitation to other founder(s). Prior to the meeting, options should be prepared to provide focus and documents need to be distributed in advance to Board members. Any changes should be based on an assessment and what is lacking/needs development rather than on 'feeling'.

There is a disconnect between the observations and struggles of the SGC Project and its team and the management of risks and strategies for engagement and communication with stakeholders. Similar issues seem prevalent with the GCL whereby the business plan activities are primarily of a PR and marketing nature, and less geared to stakeholder engagement. A strategic approach to stakeholder analysis and engagement will be key for the GCL as the Project comes to a close and UNDP exits the Board.

There are a number of aspects of the Theory of Change which would garner closer attention and consideration during the final stage of the Project. There is evidence of clear barriers between the legislative and regulatory framework of Moldova and their actual implementation that will hinder the up-take of several of the initiatives of the SGC Project. This aspect would also succeed in pushing the initiatives towards the transformative nature that is possible. These may include regulatory issues related to: extended producers' responsibility (EPR) scheme, ESCO mechanism, EMIS implementation on the broad-scale and public-private partnerships. There may be more that would be identified through the analyses of the other demonstration pilots and FTCPs.

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<sup>54</sup> <https://eur-lex.europa.eu/EN/legal-content/summary/association-agreement-with-moldova.html>

Due to the importance of the regulatory framework in allowing for scaling-up and replication of the SGC Project results, it would be important to review the legislative and regulatory framework as it pertains to the initiatives supported by the GEF. The analyses could then be transferred to both the responsible ministries and the GCL (and other key stakeholders), so that they may, in the future work, on bringing any necessary changes to fruition. This might be particularly important in terms of issues related to environment, due to the lack of interest and poor engagement of the MoENV during project implementation.

Neither the Urban planning nor the Waste management demonstration pilots will have the MRV data on the achieved GHG savings for at least one-year operating period before project closure as required according to the Results Framework. The TE team has also noted that other contracts may not contain clear commitments on part of those financed to provide information on GHG savings and other indicators.

Before Project closure, it would be essential to clarify all commitments of demonstration pilot partners to the GCL and ensure not only their proper transfer from the SGC Project to GCL, but also to review these agreements to ensure they contain the necessary commitments on submitting data on achieved GHG savings, beneficiaries, etc.

Thus, considering all of the above, **Recommendation 1** is:

Develop an **exit strategy for the SGC Project** as a whole and for UNDP Moldova from the GCL as Board member. The exit strategy should include, but not be limited to:

- analysis on the role UNDP and the PMU has provided the GCL with steps to handover relevant roles to bridge the gap on UNDP's exit from the GCL Board;
- confirm status and sign contracts<sup>55</sup> based on ESCO-type agreements ;
- provide support to GCL and remaining Board members on lessons learned from the SGC Project initiatives;
- clarify all commitments of demonstration pilot partners to the GCL and ensure transfer from the SGC Project to GCL, and review the agreements to secure the necessary commitments on submitting data on achieved GHG savings, beneficiaries, etc.
- Review the legislative and regulatory framework as it pertains to the initiatives supported by the GEF and handover the results of the analyses to the responsible ministries, GCL and other key stakeholders.

As discussed in the report, there have been many communication and public awareness activities, but almost no knowledge products prepared. There is also a lot of information lacking to ensure replication of the demonstration and FTCP projects. These activities were intended for testing and demonstrating the benefits of new technologies and approaches. Thus, the knowledge products should not only be based on GHG savings and number of beneficiaries, but also on what worked and what did not from the perspective of ability to scale-up or replicate.

The TE team was notified during the evaluation that the SGC project and GCL plan to develop the knowledge products in the months until the project closure to be shared internally and externally, and that a consultant for this activity was already identified. As expressed in early September, we hope information from the TE report will be useful input to the task of the consult in regard to the knowledge products.

This information should be practical and specific (i.e. include concrete steps that were useful, concrete indicators, etc.), should provide information that generates interest to replicate, and can be accessed in the knowledge management 'database' available through the GCL website.

Thus **Recommendation 2** is:

**Deliver the knowledge management products of Component 3 (Indicator 11 – A lessons learned report):** conduct a thorough review of the demonstration and FTCP projects, collating information on environmental, economic, impact, etc aspects and provide a concise summary for each demonstration project and the successful FTCPs which could be used by individuals and organizations to replicate. This should include information such as:

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<sup>55</sup> At time of TE evaluation agreements on payback of financing for the Sculeni Placement Centre and the Singerei Hospital were still not signed.



Project area and scope, GHG savings and other environmental benefits, cost savings or economy, impact on community, key elements for replication, key barriers faced in implementation, important data. This information should be practical and specific (i.e. include concrete steps that were useful, concrete indicators, etc.)

The nursery project started very late and will not provide results in the immediate project timeframe. It will take 3 years from planting the saplings to be able to begin using these in the urban environment. However, since Botanica Garden is also a research institution, it could be beneficial for the pilot results and study, to plant a proportion of the plants in a more aggressive urban environment where the impact could be studied. It is also an opportunity to provide visibility for use of native species in urban design, to explain to city residents the impacts of climate change.

Thus, **Recommendation 3** is:

Assess the opportunity to initiate collaboration between Botanica Garden and Chişinău municipality (or another city in Moldova, or University) and to prepare a plot with the saplings in the urban environment from the start.

The recommendations are provided in the [Recommendations summary table](#) in accordance with the Guidance in the Executive Summary of this Report.

## **LESSONS LEARNED**

The project made a sizable contribution towards **urban mobility** changes and improvements in Chişinău municipality. Several municipal policy documents have clarified a municipality approach and streamlined examples for the improved public transport fluidity, developed the understanding of the alternative municipal mobility and piloted this including via FTC programme projects showing good consistency along the project instruments. The urban mobility area requires further GCL attention and transformative challenges with fluidization of transportation, layout of the streets, etc.

The most successful demonstration pilot was the **EV charging stations**. This demonstration pilot was the first to be initiated and seemed to combine the three feedback loops of the Theory of Change of the Project: enable, implement and replicate. The project was as catalyst and it decisively contributed to the transformation by creating EV charging industry. This was achieved through the early understanding of the emerging demand, cooperating with the specialised public institution and thus indirectly with another donor (EU Horizon), involving private sector actors as an enthusiastic and visionary partner, willing to invest and take their own risks (financially and technically), as well as through other partnerships with media, which helped to inform the public.

The level of **co-financing** generated by the SGC Project is exceptional. At the planning stage, it was estimated that 39,9 million USD would be mobilised in co-financing and this amount has been significantly exceeded with a total of 138,4 million USD. The co-financing has been mobilised from a broad range of stakeholders – and both in cash and in-kind. In this manner it demonstrates the SGC Project's ability to cooperate with other entities in securing financing for the four areas of intervention areas planned.

Even though the ProDoc was conceived to have some contribution to **gender equality**, the project went to develop internal gender strategy with actions in the four policy areas (indicators, actions, gender-disaggregated data) and communication plan. As a result, more than half of project activities (policy documents contributed, FTC projects) contributed to at least mid-term results and classified as gender-targeted, while the rest remained gender blind. The gender disaggregated data on activities across all projects, including demo, needs better consistency and traceability.

The most successful **transformative** project implications feature key success factors as: understanding the root causes and sizing the existing demand in the transformation, engaging with the relevant actors and cultivating change champions across the sectors (private sector, public institutions, civil society and media as well as other donors), addressing the legal constraints and limitations, documenting lessons and replicating them into the following up activities across the sectors.

**Adaptive management** is recommended in projects as it provides a process of robust decision-making in the face on uncertainty. It requires structured use of monitoring and managing assumptions and risks, and it is usually useful to periodically reflect upon whether the adaptive manager has not lost sight of the main

outcomes to be achieved. In future projects, it would be useful to annually revert to the Results Framework to check on progress to outcomes and indicators.

There were two **evaluation panels** established for the demonstration projects. Their composition included members of the Project Board, UNDP and the Project. Although this approach was only used twice, it was a good example of how to engage Board members, have them take ownership of the process, but most importantly – provide a transparent, structured process. The evaluation panels could have expanded into each project policy area task force to guide strategically GCL continuous actions, including FTC programme projects. A unified approach for selection of pilots is advised.

**Evaluations** play an important role in the assessment of project success, providing the opportunity to receive independent and objective feedback about the project, and to gauge insight that can be valuable to improve project management and programme development in the future. Although the evaluators understand the constraints that the Project team and UNDP Moldova faced, the lack of preparedness for the evaluation (incorrect information in the TORs on the national executing agency, unavailability of documents prior to, during and after the evaluation, lack of inclusion of summary documents in the TOR's "Project Information Package to be reviewed by the TE team") impacted the efficiency of the evaluation on all sides. This resulted in a lot of time spent by TE evaluators collating information from vast array of reports, excessive time spent deliberating details, leaving less time for substantive discussions between the team and the Project. The TE team considers that this resulted in a disservice to the accomplishments of the Project and its stakeholders.

We highly recommend that UNDP Moldova considers this in future evaluations and provides support to project managers in the form of on-the-job training or mentorship on the subject of monitoring and evaluation. Consideration should be made in developing a structured and formal procedure for handover when contracts are finalized, but especially when critical project staff leave before project closure.

The same circumstance whereby the **Executive Agency** was planned as the MoENV and needed to be switched during project implementation was witnessed in ESCO Moldova. In this case also, there was no official change. Since this appears to be a practise exercised due to low engagement of the MoENV, it might be worthwhile for UNDP Moldova to consider what steps need to be taken to engage MoENV more, or to design projects so that the **Executive Agency** status is granted to a willing and interested partner.

The focus of the Project and GCL communication strategies are on public awareness, visibility and, in GCL's case, also marketing. In future projects it would be important to make a distinction between public awareness and information activities and strategies and **stakeholder engagement**. Several problems emerged in this project due to a weak strategy for engaging key stakeholders.

**ANNEX 0. Tables on demonstration and Fast Track Challenge projects, ProDoc, available information and gender issues**

## List of demonstration project ideas in the Project document

Title	Type	Location	GEF resources	Evaluation indicators
Neighbourhood Renewal Green Urban Demonstration Project	Urban planning	Urban area of Chişinău municipality, to be selected through a fully participatory and consultative process with the key stakeholders of the neighbourhood under consideration. Priority will be given to neighbourhoods that can demonstrate an active and functioning Homeowners Association.	Technical assistance: \$25,000 Investment: \$180,000 17.01% of total project costs	- direct GHG emission reduction - number of beneficiaries - indices of deprivation - use of public realm - litres of potable water saved
Elaboration of at least one Zonal Plan under the emerging or updated PUG for Chişinău	Urban planning	Location of the Zonal Plan to be based on use of previously developed (brownfield) land, the capacity of the area to support additional or improved green infrastructure, a proportion of existing communities and within walking or cycling distance of the City Centre.	Technical assistance: \$50,000 Investments: \$100,000 3.75% of total project costs	- hectares of brownfield land brought into economic use - number of new homes created and refurbished - amount of land taken out of flood risk, area of new green infrastructure created - hectares of natural flood management, ecosystem services related to flood management through reduced costs of managing pluvial and fluvial risks.
Elaboration of a Sustainable Urban Mobility Plan (SUMP) allied to improvements in the urban transport network.	Sustainable Urban Mobility – Battery Powered Trolleybuses	Citywide in scope, identifying multi-modal mobility for all. Location selected based on the Sustainable Urban Mobility Plan elaborated through a fully participatory and consultative process with professional planners, communities, policy makers and key stakeholders.	Technical assistance: \$130,000 Investment: \$ 250,000 12.5% of total project costs	- Modal shift towards sustainable transport choices - km of cycle lanes - trolleybus ridership on specific routes - numbers of schoolchildren walking to school - use of mobile apps - number of safe routes to school (0 – x) - air quality in city center (annual daily mean of NOx emissions, annual daily mean of O3 emissions)
EE retrofit project for a typical multi-apartment residential building	Building energy efficiency	Chişinău city: building selected through a fully participatory and consultative process with municipality and key stakeholders and residents with priority given to those buildings with a fully functioning HOA	Technical assistance: \$25,000 Investment: \$250,000 13.75% of total project costs	- GHG reductions - number of households taken out of fuel poverty.
Urban Waste to Biomass Energy	Innovative Green Waste Management Solutions	Location selected by the General Housing and Planning Directorate of the Chişinău Municipality to streamline non-domestic waste from the city	Technical assistance: \$30,000 Investment: \$220,000 45.5% of total project costs	- quantity of the biomass replaced from landfill/ used for briquettes production and converted into energy - CO <sub>2</sub> reduced by replacing the burning of coal with wood briquettes - reduced CH <sub>4</sub> emissions from landfill - area of green spaces improved by additional investments

Demonstrative Projects<sup>56</sup>: 8 projects<sup>57</sup>

	Projects	1.GEF/UNDP value (20%, <\$150k) <sup>58</sup>	2.Economic impact, GCL fee-based	3.GHG emission reduce, \$10 per ton/ CO <sub>2</sub> eq <sup>59</sup>	4.Innovation, technology transfer (“leapfrogging”)	5.Partnership: public & private sectors, experts	6.Replicability, scalability, sustainability, knowledge management	Conclusion
Land use and mobility planning	1. Chişinău municipality Strategies, policies on public and private transport, urban mobility, road map <sup>60</sup>	\$96,930, Additional funds (?% for policy elaboration in each): -Russian Trust\$12,000 -Czech Partnership SDGs - \$99,055; -“„MOVE IT like Lublin” – Chisinau transport” – \$3,9 mln; - BERD/BEI project road reconstruction – \$12,5 mln;	Information not found	- Bus transit system– 10.9 kt CO <sub>2</sub> eq/20 years; - Alternative transport plan - 6.5 kt CO <sub>2</sub> eq/20 years; - Promotion of Green delivery in the city – 3.8 kt CO <sub>2</sub> eq/20 years;	Comprehensive policy documents with a number of innovation elements in urban transport and mobility	Cross-sectoral partnerships with central and municipal public authorities as well as private actors regarding urban mobility, public and private transport.  Partnership with other major donors.	Experience replicable and scalable in other parts of Chisinau, and replicable in several cities of Moldova, -BRA (Bus Ride Line dedicated), -alternative mobility (electric scooters), - lessons learnt and knowledge management case study for other municipalities is to be carried out.	Complies with all but one criteria (2. Economic impact – no information). Additional funds considerable, likely that 80% criteria satisfied. Project is successful, replicable, scalable in Chisinau and elsewhere. Shows examples of engaging, consultation, participation. Public-private partnership not clear.

<sup>56</sup> Table criteria based on ProDoc Annexes G, F: 1). GEF grant (max 20% + less \$150 thou/grant (p.14, p.75), 2) Economic feasibility, GCL fee (p.14), 3) Annual MRV, direct: >0.1-0.2 mln t CO<sub>2</sub>eq/ 20 yrs, indirect: 2.4 mln t/10 yrs (40% causality) (p.12, 14, 75, Outcome 2), 4) lessons learnt, incentives/innovations in low carbon (p.14, 15), 5) on-line updated data, partnerships, engagement (p.14), Indicator7), 6) knowledge management (p.14, 15, 75). Data and information is collected from the project files and additionally provided data from the project coordinator.

<sup>57</sup> Gender, human rights and SDGs impact evaluated separately in Tables 17 and 18.

<sup>58</sup> Data based on project related files and additionally project coordinator comments data.

<sup>59</sup> Data based on MRV consultancy report and additionally project coordinator comments data.

<sup>60</sup> 1.1 Chişinău Smart Transport and Mobility Strategy; 1.2 Steps of Sustainable Urban Mobility Planning – Considerations for the SUMP Development in Chişinău; 1.3 Strategy for Transport and smart mobility, incl. Action Plan; 1.4 Development Strategy for Alternative Transport Infrastructure; 1.5 Urban Street Guidelines, Urban Mobility Plan Development; 1.6 Strategy and Road Map for extended dedicated public transport line.

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	2. <i>Botanica Garden (2023 ongoing)</i> : Producing saplings for green spaces for Chişinău and other places	\$71 thou (interest-free loan). No information on 80% matching support available.	Information not found. Municipal annual demand market exceeds project value (\$55 thou annual purchase), currently satisfied via imports, private supply limited	Contributes to lowering GHG emissions. GHG data not available.	Identify best suited plant species, elaborated Chişinău Green Spaces Guide. Expanding to	Project delivery via Gradina Botanica entity within Moldovan State University. Partnership with other municipalities (Bălţi, Cahul, etc) (buyers), private supplies, municipal green spaces management entity (Spatii Verzi) to be considered.	Scalability is high is project successful. Other municipalities (Bălţi, Cahul, etc) green spaces and plants demand contributes to sustainability. - lessons learnt and knowledge management case study for other municipalities is to be carried out.	<i>Under implementation.</i> Complies with most criteria. Matching funds (criteria 1) are not identified, yet potential from municipal authorities and private supplies exist as envisaged supply estimated at 10% of the market demand.
Waste management	3. <i>AO Reciclare/AP Moldcontrol (initially/2021) -&gt; ABS SRL (2022)</i> : 25 RMVs is to create consumers incentives-based system due to Law 209/2016, GD 561/2020 “producer responsibility” individually (Kaufland) or collectively (2 function)	\$300 thou, incl \$199,5 thou free-interest loan for RVMs equipment (\$807,3 monthly repay/10 yrs to GCL), \$50 thou awareness.  No information on 80% matching support found.	15% of waste recycled; PET tax (0.8-1.5MDL per bottle).  Economic feasibility information not found.	Contributes to lowering GHG emissions, - estimated RMVs– 2.3 kt CO2eq/20 years;	Implements adopted regulatory obligation.  PET RVMs provide recycling facility	Partnering with only recycling firm ABS SRL in Chisinau. Broader partnership actors advisable as e.g. with Retailers/Store owners (AO Reciclare, etc) to be considered.	If economically feasible, likely scalable in Chisinau and replicable in other cities (Balti, Cahul), - lessons learnt and knowledge management case study for other municipalities is to be carried out.	<i>Under implementation.</i> Switched implementing partner from a faction of retailers to only PET recycling firm in Chisinau. Complies with majority criteria (no information on matching funds).
Energy efficiency	4. <i>EV Point -2020</i> (phase 1): (40+20 22kW e-chargers), - 2021 (phase 2) (3 fast 50kW e-chargers)), <a href="https://docs.google.com/spreadsheets/d/1uWBCVdF1jcr8yfRm0z6VvfW0Jiqq0T8M/edit#gid=1960133682">https://docs.google.com/spreadsheets/d/1uWBCVdF1jcr8yfRm0z6VvfW0Jiqq0T8M/edit#gid=1960133682</a> <i>Output 2.5</i>	Phase 1: \$30 thou Phase 2: \$70,2 thou EEF grant: \$118 thou (EU Horizon) EV-point: \$296,170  ( <i>interest-free loan repay to GCL/? years</i> )	Growing e-cars market annually by 5-10% needs to catch-up with e-chargers (a dozen prior to project start).	2020-2021: 140-149 kt CO2-e;  1,4 mln t CO2eq/20 years, emissions from road transport decreased with 92 kt/3 years as EV use increase is 4% from total emissions;	Transfer of e-chargers and fast e-chargers into Moldovan market created the industry.	Partnership with EFF (co-financing). Expanding partnerships with other private e-chargers’ companies, Municipalities, Ministry of Energy, Ministry Construction/Regional Development to facilitate e-chargers’ instalments.	Proven economically feasible, sustainable, created e-chargers industry. Lessons learnt and knowledge management case study to draw on the key success factors is to be carried out.	Project complies with all criteria. Project is transformative, created e-charger industry, EVs reached tens of thousands, private investments \$296 thou. Challenges remain in e-chargers set-up and parking, block of flats.  The project seized investment opportunity in the emerging market of e-chargers.
	5. <i>Termoelectrica</i> (heating monopolist): Support transformation to horizontal heating in	\$88,3 thou ESCO contract to flats’ owners for 60 months repayable to GCL via	80% of flats (hundreds of thousands use vertical heating	GHG emissions reduction: CO2-85 tonnes (together with	Horizontal heating system is a proven technology for the energy efficiency.	Partnership with Ministry of Family and Social Protection (energy poverty	Economically feasible, improves quality, accessibility of more affordable energy, yet	Project complies with all criteria. Project supported relevant good practice and learning points for

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block of flats in Chişinău, inside works of 112 flats from 3 buildings;	Termoelectrica subsidiary, Termoelectrica: \$10 mln (2018-2023)	systems); Average: investment/flat-\$861, monthly savings -\$63 (11-22%), monthly repay -\$16;	CET-Nord), 312,28 tons of CO2 reduction/yearly 6,244 kt CO2eq/20 years	The project supported heating provider to reduce the cost of changing based on heating provider technology.	impact), Municipal authorities (targeted social protection), ERBD, WB (energy efficient utilities), micro-financing and banking institutions to expand targeted retrofitting of the heating systems needed.	particularly socially vulnerable and poor households require targeted support, replicable and sustainable. Lessons learnt and knowledge management has been performed, should be published for review.	replication at larger scale and with the Government tailored support policy based on this practice. Expand into building insolation, smart metering, photovoltaic solar (buildings and suppliers), etc
6.CET-Nord (heating monopolist): Support transformation to horizontal heating in block of flats in Bălţi , inside works in 22 flats from 3 buildings (\$22,3 thou) and inter-block/common space renovation	\$98,6 thou ESCO contract to flats' owners for 60 months payable to GCL via CET-Nord  Investments of CET Nord in the heating system (2018-2023)-\$16,5 million	Average per apartment: investment-\$861, monthly savings -\$63 (33-53%), loan repay -\$16;	GHG emissions reduction: CO2-85 tonnes (together with Termoelectrica),	Horizontal heating system is a proven technology for the energy efficiency. The project supported heating provider to reduce the cost of changing based on heating provider technology.	Partnership with Ministry of Family and Social Protection (energy poverty impact), Municipal authorities (targeted social protection), ERBD, WB (energy efficient utilities), micro-financing and banking institutions to expand targeted retrofitting of the heating systems needed. Expand into building insolation, smart metering, photovoltaic solar (buildings and suppliers), etc	Economically feasible, improves quality, accessibility of more affordable energy, yet particularly socially vulnerable and poor households require targeted support, replicable and sustainable. Lessons learnt and knowledge management has been performed, should be published for review.	Project complies with all criteria. Project supported relevant good practice and learning points for replication at larger scale and with the Government tailored support policy based on this practice. Expand into building insolation, smart metering, photovoltaic solar (buildings and suppliers), etc
7.Replicating UNDP Croatia EMIS water, electricity, gas, calory data from 17 public buildings in Chişinău by providing hardware, capacity-building (via IDomus SRL) (2021); Expanding EMIS to 56 public buildings in Chişinău (2022-23);	2021: \$ 48,9 thou \$19,275- IT support and platform adaptation  \$27,660 USD - inter-connectivity platform smart meters to EMIS  \$20,900 USD - smart	No information found.	EMIS – 10 % reduction of energy consumption in group of buildings - 527 tones CO2/yearly or 10,54 ktone CO2eq/20years;	Informational system innovates monitoring of public building efficiency management, with smart metering reduces labour cost.	Partnership with Household Associations, Utility providers, private sector metering firms' suppliers, Municipal authorities, Ministry of Energy, Ministry of Social Protection in expanding practice to private sector buildings. Integrated solutions and	Likely economically feasible, improves quality, accessibility of more affordable utilities based on international EMIS practices. Lessons learnt and knowledge management case study to draw on the key success factors is to be carried out. Knowledge management data case useful for other	Project complied with all but one criterion. Project is transformative, provided good bases and learning points critical for replication to private sector.

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<u>Output 3.5</u>	meters Expert-Grup/ Netherlands USD \$111,390 (EMIS extension)				facilitatory regulations.	municipal authorities and private sector.	
<i>8. Photovoltaic Panels for Home-owners Associations (2021):</i> - 1 Arheolog Ion Casian Suruceanu (20.3kW); - 20/2 Unirii str, Stauceni (?kW) - 28 Sadoveanu str (?kW)	\$27,9 thou; % <i>matching?</i>  () % <i>matching?</i>  () % <i>matching?</i>	No information found.	Residential building (20 kW) – 13,74 t CO2/year 08.2022-05.2023: 3872 CO2 kg; - ??  -??	No innovation.	Partnership with Household Associations, ESCO firms, Ministry of Energy for exploring energy efficacy investments should be considered.	Improves quality, accessibility of more affordable energy. Lessons learnt and knowledge management has been performed, should be published for review.	Project complies is some criteria. Project is not transformative, or illustrative of a new practice.
<i>Photovoltaic Panel systems via GCL (2022):</i> - Sângerei District Hospital (84kW) - Sculeni Elderly Placement Center (30kW)	ESCO contacts (repay to GCL over ... months): - \$56,8 thou (works) + \$13,9 thou project development); \$27,7 thou (works) +...); <i>% matching investment?</i>	No information found.	-1.2023-05.2023: 3,9 t CO2 kg; 63,18 t CO2/year -10.2022-05.2023: 3,4 t CO2 kg (30kW) -21,5t CO2/year)	No innovation.	Partnership with Household Associations, ESCO firms, Ministry of Energy for exploring energy efficacy investments should be considered.	Improves quality, accessibility of more affordable energy. Lessons learnt and knowledge management has been performed, should be published for review.	Project complies is some criteria. Project is not transformative, or illustrative of a new practice.

Demonstration projects<sup>61</sup>: gender and human rights indicators

	<b>Projects, gender reporting</b>	<b>Gender equality</b> (60% participation, beneficiaries)	<b>Persons with Disabilities, Human rights participatory rights</b>
Urban mobility	1. Chişinău municipality Strategies, policies on public and private transport, urban mobility, road map ( <i>ex-ante gender impact indicators, gender disaggregated consultation participation of citizens and NGOs, 70% women bus lane users</i> )	<p>Some policy and planning related activities are <i>gender-blind</i>, while some are <i>gender-targeted</i>. Recommended gender disaggregated consultations engagements, including with gender-rights NGOs are not carried out, as well as ex-ante gender impact issues are not integrated (elements of gender-responsive criteria). The Gender consultancy recommends parents'/women and children and persons with disabilities rights planning; gender-sensitive case studies profiling and ex-ante gender impact analysis. With regard to draft policy/planning documents participation, the 60% one gender participation of beneficiary could not be concluded.</p> <ul style="list-style-type: none"> <li>- Catalyzing investment in sustainable green cities using a holistic integrated urban planning Analysis - <i>gender -blind</i>, no attention to gender.</li> <li>-Chişinău Smart <i>Transport and Mobility</i> Strategy Analysis - <i>gender -blind</i>, yet some aspects target pedestrians, cycling and public transportation used by women.</li> <li>- Sustainable <i>Urban Mobility</i> Planning Analysis - <i>gender -blind</i>, yet some aspects target pedestrians, cycling and public transportation used by women.</li> <li>-Development Strategy for Alternative <i>Transport Infrastructure</i> – <i>gender targeted</i>, addresses need of women, roots of inequalities regarding mobility, labor.</li> <li>-Urban Street Guidelines, Urban <i>Mobility Plan</i> Development - <i>gender targeted</i>, women and men targeted;</li> <li>-Urban <i>Mobility Plan</i> Development - <i>gender targeted</i>, women and men targeted;</li> <li>-Strategy and <i>Road Map</i> for extended dedicated public transport lane - <i>gender targeted</i>, women and men targeted.</li> </ul>	<p>Some policy and planning related contain references to engagement and participation and to rights of persons of disabilities and children rights, while other do not.</p> <ul style="list-style-type: none"> <li>-Catalyzing investment in sustainable green cities using a holistic integrated urban planning Analysis - no attention to human rights.</li> <li>-Chişinău Smart <i>Transport and Mobility</i> Strategy -children rights aspects assessed.</li> <li>-Sustainable <i>Urban Mobility</i> Planning Analysis – community consultation, participation and engagement tools surveys and on-site visits of citizens in the process.</li> <li>-Development Strategy for Alternative <i>Transport Infrastructure</i> – recognizes vulnerable people, children, people with disabilities special needs, therefore responsive as well as extensive consultations.</li> <li>-Urban Street Guidelines, Urban <i>Mobility Plan</i> Development – marginalized and vulnerable segments targeted, recognizes community engagement.</li> <li>-Urban <i>Mobility Plan</i> Development – participation or vulnerable rights groups engagement targeted.</li> <li>-Strategy and <i>Road Map</i> for extended dedicated public transport lane – disability and participation rights are recognized.</li> </ul> <p>SDG 11 (affordable basic services, including sustainable urbanization, transport)</p>

<sup>61</sup>Demonstrative projects ...directly benefit not more than 60% of persons from the same gender. Additionally, (Indicator 7) ... integrated and participatory planning methodologies are taken into use in updating the Chişinău General Urban Development Plan (PUG) and related zonal plans, including gender disaggregated data on the number stakeholders engaged into the process. - At least one zonal plan finalized based on an integrated and participatory planning methodology ... having a balance participation of both male and female stakeholders without a single gender exceeding a share of 60%.



Waste management	2. <i>Botanica Garden (2023):</i> Producing saplings for green spaces for Chişinău and other places	<p>The project documentation is <i>gender-blind</i> as results had no attention to gender or gender differences. The project objective targets creation of green space while women, children are the de facto prime beneficiaries. A large number of current employees of Spatii Versi, municipal entity, are women, project impact should factor this impact. The gender consultant recommends though consideration: waste and collection affect differently women and men, particularly health, social protection therefore actions should differentiate, waste depositing impacts adversely. It also recommends collection of employment' gender desegregated data, carrying out informative actions reaching women and men, area leadership gender disaggregated.</p> <p>The project <i>could be scaled-up</i> via the participation of other municipalities and <i>drawing in more private investment and entrepreneurs, including women and thus making it gender-targeted</i> via the women empowerment as many women small entrepreneurs are involved in this business based on other UNDP project information. The potential for the transformation and cooperation of public (demand and partial supply) and diversified women-led supply and investment is sizable.</p>	The project does not refer to the differentiated needs of the vulnerable or marginalized groups as persons with disabilities or children. The project required for the participation and consultation. Substantive rights imply right to healthy environment or SDG 11 (sustainable municipal waste management), 12 (responsible consumption/production) are not reflected.
	3. <i>AO Reciclare/AP Moldcontrol (initially/2021) -&gt; ABS SRL (2022):</i> 25 Plastic Bottles collecting RMVs to create consumers incentives-based system	<p>The project is <i>gender -blind</i>. The gender consultant recommends though consideration: waste and collection affect differently women and men, particularly health, social protection therefore actions should differentiate, waste depositing impacts adversely. It recommends collection of employment' gender desegregated data, carrying out informative actions reaching women and men, area leadership gender disaggregated.</p> <p>The project could become more gender-targeted by incorporating gender differentiated focus.</p>	The project does not refer to the differentiated needs of the vulnerable or marginalized groups as persons with disabilities or children. It does refer to the SDG 11 (sustainable municipal waste management), 12 (responsible consumption/production) in the project proposal, while the right to healthy environment as per HRC/RES/48/13, UN Res 76/300 is not.
Energy efficiency	4. <i>EV Point (gender disaggregated data on car owners)</i>	<p>The project proposal is <i>gender -blind</i> as its activities as it does not pay attention to the gender differentiated needs, no acknowledge different needs in private transportation for women or women household with children. Gender consultancy recommends ex-ante evaluation (feasibility study) of the affordability and ownership for women, as well as gender disaggregated data on car owners. The project has collected gender disaggregated data on the cars' owners and charging sessions complying partly with the recommendations and project criteria.</p> <p>The project has become the EV charges market success, however, there are opportunities for supporting e-charging more accessible for the</p>	The project contributes to the achievement of SDG 7 (affordable energy), SDG 13 (Climate Action). SDG 7 is particularly relevant to the young and young families – the early adopters of the e-cars in the urban settlements. However, the beneficiaries' survey or disaggregated data on the type of the beneficiaries, the frequency and the charges, and therefore, the price tag attached, is advisable to be carried out.

	women by elaborating some stimuli.	
5. <i>Termoelectrica</i> (heating monopolist): Support transformation to horizontal heating in block of flats in Chişinău, inside works of 112 flats from 3 buildings;	The project is <i>gender-blind</i> as it had no particular attention to gender or differentiated needs of women-led households, or households with children or the singular elderly women in the project proposals and in the corresponding Terms of References. Gender consultancy recommends gender desegregated data on number of households, incl women-led taken out of fuel poverty and on persons with disabilities consulted beneficiaries, roughly suggesting project to graduate from “gender neutral” to “gender sensitive” as gender sensitive needs assessment and respective accessibility, energy accessibility, affordability, risks are gender sensitive; women adverse impact of energy production, use in particular affected by poverty. The project collected the gender/household disaggregated data and thus complied partially with the recommendations; however, the gender aspect has yet, to be reflected in the Final implementation report conclusions, lessons learned and recommendations. Six multi-story buildings from Chişinău and Bălţi municipalities switched to a more efficient heating system are 64.1% women and 35.9% men, 4 out of 6 Home Residents Associations involved in the project are led by women – data according to PIMS cumulative report. The scaling up of the project could become <i>gender-targeted</i> .	The project contributes to the right to adequate stand of living (art.25 Universal Declaration on Human Rights, art.11 SCER), and SDG 1 (end poverty), SDG 7 (affordable energy). The project has not targeted specifically the most vulnerable groups or households, rather based its decision to select the beneficiaries on different availability or readiness grounds to participate in the project. The project, over the period of 60 months (mid-term) does provide savings for the households, however the poorest households ordinary struggle to meet the short-term repays. Project Implementation review report in its final recommendation also provides for the supporting financial mechanism for the poor (most vulnerable, marginalized, with many children, with disabilities) residents be applied so that to contain a grant component to address the particular vulnerability with specific solutions.
6. <i>CET-Nord</i> (heating monopolist): Support transformation to horizontal heating in block of flats in Bălţi, inside works in 22 flats from 3 buildings and inter-block/common space renovation		
7. Replicating UNDP Croatia <i>EMIS</i> water, electricity, gas, calory data from 17 public buildings in Chişinău by providing hardware, capacity-building (via IDomus SRL) (2021); Expanding EMIS to 56 public buildings in Chişinău (2022-23); <u>Output 3.5</u>	The project is <i>gender-blind</i> as it had no particular attention to gender or differentiated needs of women-led households, or households with children or the singular elderly women in the project proposals and in the corresponding Terms of References. The project scaling-up of the project could <i>become gender-targeted</i> by focusing on gender-differentiated needs.	The project contributes to the right to adequate stand of living (art.25 Universal Declaration on Human Rights, art.11 SCER), and SDG 1 (end poverty), SDG 7 (affordable energy).
8. <i>Photovoltaic Panels for Home-owners Associations</i> (2021): - 1 Ion Casian Suruceanu str - 20/2 Unirii str, Stauceni	The project is <i>gender-blind</i> as is the project Terms of references, criteria for selection had no attention to gender or differentiated needs of women-led households, or households with children or the singular elderly women. Gender consultancy recommends gender desegregated data on number of households, incl women-led taken out of fuel poverty and on persons with disabilities consulted beneficiaries, roughly suggesting	The project contributes to the right to adequate stand of living (art.25 Universal Declaration on Human Rights, art.11 SCER), and SDG 1 (end poverty), SDG 7 (affordable energy). The project has not targeted specifically the most vulnerable groups or households, rather based its decision to select the beneficiaries on different availability or readiness grounds to participate in the project. The project, over the

<p>-28 Sadoveanu str  <i>Photovoltaic Panel systems via GCL (2022)</i>, no interest loan:  - Sângerei Municipal Hospital  - Sculeni Elderly Placement Center</p>	<p>project to graduate from “gender neutral” to “gender sensitive” as gender sensitive needs assessment and respective accessibility, energy accessibility, affordability, risks are gender sensitive; women adverse impact of energy production, use in particular affected by poverty.  The project collected the gender/household disaggregated data and thus complied partially with the recommendations; however, the gender aspect has yet, to be reflected in the Final implementation report conclusions, lessons learned and recommendations.  Sângerei Hospital, where photovoltaics was also installed, 64% of workers and patients are women and 36% are men. In the Chişinău multi-story building beneficiary of a photovoltaic system, 65% of the residents are women and 35% are men and 72% of people staying or working at the Placement Centre from Sculeni, Ungheni, where photovoltaics was installed with the support of the project, are women, and 38% - men as per PIMS cumulative report.  The project scaling-up of the project could <i>become gender-targeted</i> by focusing on gender-differentiated needs by focusing on women-led households.</p>	<p>longer period does provide savings for the households, however the poorest households ordinary struggle to meet the short-term repays.  There is no Demo Project Implementation report that is to provide recommendations regarding financial mechanism for the poor (most vulnerable, marginalized, with many children, with disabilities) residents be applied.</p>
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Fast Track Challenge Projects<sup>62</sup>: 16 projects<sup>63 64</sup>

	Projects (competition round)	2). Economic profitability (CBA, 3-yr return-investment)	3). GHG emissions reduced, environmental impact	4). Innovative, visible	5). Community engagement, participation	6). Replicability, scalability, Sustainability	Conclusion
Urban mobility (5)	1. <i>Universal Access SRL (R1)</i> : online info ( <a href="http://www.accesibilitate.md">www.accesibilitate.md</a> ), Dacia blv x Botev/Millo str, 3 crossings, road marking in Chişinău: 2018-19,	\$ 8 thou requested, \$2,3 thou (own). CBA, return-on-investment information not found	GHG data not found.	Transfer of road safety practice for non-riders to a segment of main road; visible	Consultation with pedestrians incl. via survey, of the road segment; consultations, other NGOs	If proven positive, likely to be replicated	Project complied with majority criteria. Contributes to improved mobility. High social impact, visibility, good replication.
	2. <i>CIPTI (R2)</i> : Guide and course approved on eco-drive, CO2 emission tester for eco-driving (900 beneficiaries), 2019,	\$ 7,9 thou requested, \$3,7 thou (own). No CBA, or return-on-investment presented	Claimed eco-driving reduce 20% fuel consumption and GHG emissions. GHG data not found.	Transfer of road safety practice drivers; somewhat visible via TV shows	Limited consultations.	If proven positive, likely to be replicated in other cities	Project complied with majority criteria. Good extension is incorporated into policy cycle.
	3. <i>MTD SRL (R2)</i> : online electric scooters (20-30), 2 parking in Chişinău; <a href="http://www.iride.md">www.iride.md</a> , 2019-20;	\$ 8 thou requested, \$5,4 thou (own) Claimed \$20 thou in 2 years, 300 scooters in 5 years to reach-out 60 thou (10% of students) rides;	Claimed GHG emissions reduction. GHG data not found.	Transfer of experience from other cities; somewhat visible	High visibility and engagement from young people, gender sensitive and accessible.	Number of parkings remain the same, number of scooters not clear.	Project complied all criteria. Contributes to improved mobility. High social impact, visibility, good replication.
	4. <i>ProKatalyst SRL (R3)</i> : organic food on electric bike delivery; 2020-21;	\$ 8 thou requested, \$7,8 thou (own) CBA and Business plan developed with 5 months break-even, 3 year return on investment.	Calculated 210 kg CO <sub>2</sub> reduction during project.	Transfer of experience from other cities; somewhat visible	Engaging eco, organic food growers;	Limited replicability given niche market; likely sustainable.	Project complied all criteria. Contributes to improved mobility. High social impact, visibility, good replication.
	5. <i>Project Line SRL (R3) (follow-up 1. Universal Access SRL)</i> : safety Dacia blv x Millo X Botev,	\$ 8 thou requested (13%), \$53,4 thou (City hall, other grants)	Claimed improvement in traffic flow, lowering carbon expense. GHG	Transfer of road safety practice for non-riders to a segment of main	Consultation with every-day users of the road segment;	Replication elements: Cycling infrastructure	Project complied with majority criteria. Contributes to improved

<sup>62</sup> Table criteria based on ProDoc, FTCP Application Guide (Guide): 1). <8 thou (Guide), 2) Economic profitability (CBA, 3 yrs. return on investment, Guide), 3) GHG emission reduce – 10 projects with RMV on GHG savings (indicator 9), 4) innovative, complimentary visible solutions to low carbon based on good practices (Output 2.4), 5) community engagement, participation (Guide). Data and information is collected from the project files and additionally provided data from the project coordinator.

<sup>63</sup> GCL presentation source point to 17 FTC projects implemented. Clarification in comments to TE 16 projects selected of which 14 implemented, one withdrew before agreement was signed, one not implemented due to lack of capacity of company to complete activities.

<sup>64</sup> Gender, human rights and SDGs impact evaluated separately in Tables 17 and 19.

	2.6 km-2-directions cycling infrastructure integration: 2020-21	No CBA, or return-on-investment presented	data not found.	road; highly visible	consultations with other relevant NGOs	developed in Chisinau by local authorities within other projects	mobility. High social impact, visibility, good replication.
Waste management (6)	6. <i>Adonius-Lux SRL (R1)</i> : installing 3 wireless (entrance-exit) water pollution devices with web-application on Bic river in Chişinău to inform public opinion						No files. Project not implemented; institution declared insolvency.
	7. <i>QMS International (R1)</i> : used car batteries installed on block of apartments roof; 2019	\$ 8 thou requested, \$10,4 thou. No CBA, or return-on-investment presented	7845 kg CO <sub>2</sub> reduction per annum; Re-use of the electric batteries; no waste from batteries	Innovative re-use of the used electric batteries;	3 media reporting, 4 online media interviews as per project result; a dozen of online media disseminations;	likely to be replicated with the used batteries in public buildings	Project complied with majority criteria. Innovatively contributes to re-use of batteries and reduction of waste. Social impact, visibility, good replication.
	8. <i>Fetescu X (R2)</i> : set-up 3 thermal plants for selective collection of waste, composting for Chişinău public food enterprises, Operational manual elaboration 2020	\$7.9 thou requested, \$5.15 thou (own); No CBA, or return-on-investment presented	Claimed CO <sub>2</sub> reduction; reduction of CO <sub>4</sub> (methane), NO <sub>2</sub> reduction. GHG data not found.	Good practice tested in 5 enterprises/restaurants	Some 7 online media and social networks postings.	Experience replicable to other restaurants, cafes and enterprises.	Project complied with majority criteria. Contributes to reduction of waste. Good replication.
	9. <i>CE Prometeu SRL (R2)</i> : Elaboration firm standard for production of Bocashi composter, processing animal residuals; 2019-21	\$8 thou requested, \$13,7 thou (own); No CBA, or return-on-investment presented	Claimed reduction of environment pollution waste recycling. GHG data not found.	Transfer of EM technology for canine and greens waste management and production of composter	Consultation with municipal entities (Spatii Verzi, Salubrizare)	If proven positive, likely to be replicated, sustainable	Project complied with majority criteria. Contributes to reduction of waste. Good replication.
	10. <i>ABS SRL – major waste recycling firm (R3)</i> : Model (block of flats with 1.6 thou apartments) for selective collection of waste in Chişinău, Useful Waste Museum, 2 <sup>nd</sup> Chance Vintage Shop by extraction of useful parts; 2020	\$14 thou requested, \$6 thou (own); No CBA, or return-on-investment presented	Claimed 25-30% CO <sub>2</sub> reduction; reduction of CO <sub>4</sub> (methane) Reduces environment pollution by recycling. GHG data not found.	New sorting, recycling and treatment methods	Consultation with NGO (NGO Reciclare), online media appearances and beneficiaries.	If proven positive, likely to be replicated, sustainable	Project complied with majority criteria. Contributes to reduction of waste. Good replication.
	11. <i>Redivivus SRL (R3)</i> : Production of consumable glasses reducing plastic/paper ones; 2020-21	\$ 8 thou requested, \$32 thou (own); 3 supply increase to 15 thou/day; return-on-investment in 1 year (\$50 thous) profit	Claimed 20% reduction in energy consumption, reduces waste. GHG data not found.	Innovative no-waste glass production	Several online media, high visibility events (green days) used and promoted no-waste glasses.	Replicable during special niche public events and also for some categories of consumers.	Project complied with majority criteria. Innovative production of glasses, reduction of waste. High visibility, good replication.

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Energy efficiency (3)	12. <i>IDomus(R1)</i> : smart lighting management by DALI protocol in home and public lighting						No files. No contract signed.
	13. <i>Novaservice SRL (R2)</i> : replication research, installing 1 smart wireless sensor metering system for thermal energy in flats and block of apartments with vertical heating, 2019-20	\$7.2 thou requested, \$3.6 thou (own); \$350 flat apartment recover in 3 years; No CBA, or return-on-investment presented	Claimed, GHG data not found. Likely marginal for 1 flat as an experiment.	Smart heating metering reducing energy consumption by 25-30% per flat	No information.	15-30% savings for experimental flat that could be replicated;	Project complied with majority criteria. Innovation practice claimed, good replication.
	14. <i>LED Market SRL (R3)</i> : Educational entity lighting Energy Performance Contract with ESCO component; 2021	\$8 thou requested, \$6 thou (own); 300 lights with 5-6 years return-on-investment; some \$120 savings per Anum	Claimed reduced 0.42 t CO <sub>2</sub> ; Reduces environment pollution by less waste. GHG data not found.	Smart lighting management system	Consultation with NGO (NGO Reciclare), online media appearances and beneficiaries	Likely to be replicated, sustainable	Project complied with majority criteria. Energy efficient. High visibility, good replication.
Sustainable urban planning (2)	15. <i>Orange Moldova SRL (R1)</i> : setting up 5 smart devices monitoring air quality in Chişinău; 2018-20	\$8 thou requested, \$5 thou (own); No CBA, or return-on-investment presented	GHG data not found.	Smart metering devices for air quality monitoring used by others.	Wide visibility given Orange profile	If integrated in a single Chisinau-wide network and integrated into Orange mobile network, could become widely used.	Project complied with many criteria. High visibility. Sustainable if connected to national monitoring, replication potential.
	16. <i>3D Story SRL (R3)</i> : installing 25 3-in-1 creative benches with bushes and rubbish collector in Chişinău; 2018-19	\$7.7 thou requested, \$3.3 thou (own); No CBA, or return-on-investment presented	GHG data not found.	3-D printing technology.	Visibility via benches placed in public spaces	Likely to be replicated, sustainable	Project complied with majority criteria. High visibility, good replication.

FTC projects<sup>65</sup>: gender and human rights indicators

Projects, gender reporting (including	Gender equality (gender impact in proposal, gender disaggregated data, contribution to gender equality), 3	Persons with Disabilities, Human rights and participatory rights
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<sup>65</sup> FTC projects require gender impact described in proposal, gender disaggregated data and contribution supporting gender equality (indicator 9). Additionally, Indicator 9: Number of projects supported monitored gender disaggregated data on project beneficiaries and their contribution to supporting gender equality. - At least 10 projects with monitored, verified and reported data, as applicable, on the achieved GHG savings, of which at least 3 projects having also a strong positive impact on supporting gender equality.

	<i>gender balanced team</i>	<i>projects strong impact on gender equality</i>	
Urban mobility (5)	1. <i>Universal Access SRL</i> (R1): online info, 3 crossings, road marking	<p>The project is <i>gender-targeted</i> as it focuses on the gender differentiated need. The project improves the walks used by women, mothers for children's facilities, shops, women cyclists; all women-led project, moving and eye impaired disabled; gender-balanced team.</p> <p>The project has not collected sample of gender-disaggregated statistics on the use of the crossing adaptations and beneficiaries' feedback and thus lessons learned and conclusions on the improved safety and gender differentiated needs served.</p> <p>If proven effective, the project could be replicated in other parts of the city.</p>	<p>The project contributes towards SDG 5 (gender equality) by reducing men risky behavior, SDG 11 (safer cities) but also towards art. 27 of the Convention on the Rights of Persons with Disabilities.</p> <p>If proven effective, the project could be replicated in other parts of the city.</p>
	2. <i>CIPTI</i> (R2): Guide and course approved on eco-drive, CO2 emission tester for eco-driving (900 beneficiaries)	<p>The project is likely <i>gender-targeted</i> as it focuses on the accessibility of the gender differentiated needs.</p> <p>Eco-driving claims it can contribute reducing by 35% road accidents, targeting male drivers that more high-speed drivers. The project direct beneficiaries were about 30 women, more than 90 men and 50 youth and after-project changes impact on the driving behavior and car incidents in the form of the exit-poll.</p>	<p>The project contributes towards SDG 5 (gender equality) by reducing men risky behavior, SDG 11 (safer cities).</p>
	3. <i>MTD SRL</i> (R2): online electric scooters (20-30), 2 parking ( <a href="#">gender-disaggregated scooters users</a> )	<p>The project is <i>gender-targeted</i> as it focuses on the accessibility of the gender differentiated needs, particularly accessibility of eco urban mobility for girls and young women. The project collected gender disaggregated statistics proving that some 45% of beneficiaries are women that exceeds the women driving vehicles by far. The project could be scaled up and replicated considering the safety issues of driving scooters are taken into consideration.</p>	<p>The project, as it stands now, contributes to the gender equality principle as envisaged in SDG 5 (gender equality, empower women, girls) and CEDAW rights on women integration and realization in society.</p>
	4. <i>ProKatalyst SRL</i> (R3): organic food on electric bike delivery;	<p>The project is <i>gender-targeted</i> as it focuses on integrating into the supply chain women-led businesses from rural areas thus integrating them into the urban food consumptions. Gender differentiated food supply come from rural women growers; women-led business and given that rural women are less representative in businesses supports women empowerment.</p> <p>The project team is gender-balanced (50-50%), however, has not collected gender disaggregated data on their beneficiaries and has not targeted gender differentiated demand.</p> <p>The project is low scale, its scaling-up potential is limited, yet to some extent, rural women empowerment projects carried</p>	<p>The project contributes to art. 27 of the Convention on the Rights of Persons with Disabilities. It also contributes to SDG 8 (full employment, growth, including persons with disabilities) as it hires persons with disabilities (2 with autism, 3 delivery per day) for delivery work. The project also contributes towards SDG 5 (gender equality, empower women, girls) as it supports art. 4 CEDAW's women full employment.</p>

		out by UNDP an UN Women are taking the traction.	
	5. <i>Project Line SRL (R3) (follow-up 1. Universal Access SRL):</i> safety, 2.6 km-2-directions cycling infrastructure integration	<p>The project is <i>gender-targeted</i> as it focuses on the gender differentiated need. The project improves walks used by women, mothers for children's facilities, shops, women cyclists; all woman-led project, moving and eye impaired disabled.</p> <p>The project has not collected sample of gender-disaggregated statistics on the use of the crossing adaptations and beneficiaries' feedback and thus lessons learned and conclusions on the improved safety and gender differentiated needs served.</p> <p>If proven effective, the project could be replicated in other parts of the city.</p>	<p>The project contributes towards SDG 5 (gender equality) by reducing men risky behavior, SDG 11 (safer cities) but also towards art. 27 of the Convention on the Rights of Persons with Disabilities.</p> <p>If proven effective, the project could be replicated in other parts of the city.</p>
Waste management (6)	6. <i>Adonius-Lux SRL (R1): intended</i> installing 3 wireless (entrance-exit) water pollution devices with web-application on Bic river in Chişinău to inform public opinion - <i>No files (3 times extended)</i>	The project drafted as <i>gender-blind</i> as in fact does not give attention to gender.	The project intended to contribute to the achievement of SDG 3 (good health and well-being, water basins quality is a factor of illnesses) and SDG 11 (inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities).
	7. <i>QMS International (R1):</i> used car batteries installed in block of flats accumulating electrical energy as back-up, 3kWt photovoltaic solar panels	<p>The project is <i>gender-blind</i> as it has no attention to gender and does not acknowledge gender differentiated needs. The choice of the beneficiaries was not justified in terms of the gender-sensitivity. Project has complied with recommendation to collect final beneficiaries' gender disaggregated data. Thus, it states: 26 beneficiaries (9 women, 8 men, 9 children/youth).</p> <p>The project could be scaled-up and made <i>gender-targeted</i> focused on supporting women-led households in need improve their energy affordability and reduce energy poverty, given the expected lower price of the used batteries and combining solar panel installations with the used batteries storages.</p>	<p>The project contributes to the right to adequate stand of living (art.25 Universal Declaration on Human Rights, art.11 SCER), and SDG 1 (end poverty), SDG 7 (affordable energy). No data is collected on the beneficiaries and whether it targeted the most vulnerable as claimed reducing up to 50% of their electricity cost.</p> <p>The project could be replicated and scaled up targeted human rights to the most vulnerable.</p>
	8. <i>Fetescu X (R2):</i> set-up 3 thermal plants for selective collection of waste, composting in public food enterprise, Operational manual elaboration - <i>Failed</i>	<p>The project is <i>gender-blind</i> as it does not differentiate gender needs.</p> <p>The project could have potential for the replication and scaling-up focusing on segregating and experiment gender differentiated stimuli for the collection of waste and become <i>gender-targeted</i> as recommended in the gender consultancy.</p>	The project aimed at contributing towards SDG 11 (sustainable municipal waste management), 12 (responsible consumption/production).
	9. <i>CE Prometeu SRL (R2):</i>	The project is <i>gender-blind</i> as it does not differentiate gender	The project does not refer to the differentiated needs of the



	Elaboration firm standard for production of Bocashi composter, processing animal residuals	needs. The project result potential could be made available to some households and firms operating particular animal residual. The project has not made gender disaggregated data on the employees involved.	vulnerable or marginalized groups as persons with disabilities or children. It does contribute towards SDG 11 (sustainable municipal waste management), 12 (responsible consumption/production).
	10.ABS SRL – major waste recycling firm (R3): Model (block of flats with 1.6 thou apartments) for selective collection of waste in Chişinău, Useful Waste Museum, 2 <sup>nd</sup> Chance Vintage Shop by extraction of still useful parts	The project is <i>gender-blind</i> as it does not differentiate gender needs. The project has complied with some recommendations by collecting gender disaggregated beneficiaries' data: woman-led project; gender balanced team; of 1700 beneficiaries, 590 women, 510 men, youth 95.0. The project could be replicated and scaled-up focusing on segregating and experiment gender differentiated stimuli for the collection of waste and become gender-targeted as recommended in the gender consultancy.	The project contributes towards SDG 11 (sustainable municipal waste management), 12 (responsible consumption/production). It does not refer to the differentiated needs of the vulnerable or marginalized groups as persons with disabilities or children.
	11.Redivivus SRL (R3): Production of consumable glasses reducing plastic/paper ones	The project is <i>gender-blind</i> as it does not differentiate gender needs. The project has not collected gender disaggregated data on beneficiaries or project employees. The project could become <i>gender-targeted</i> focusing on the gender differentiated needs and scaled up.	The project contributes towards SDG 11 (sustainable municipal waste management), 12 (responsible consumption/production). The project could be focused more on the needs of the vulnerable and marginalized groups of population as persons with disabilities by e.g. providing adapted employment.
Energy efficiency (3)	12. IDomus(R1): smart lighting management by DALI protocol in home and public lighting - No files	The project is <i>gender-blind</i> as it does not differentiate gender needs.	The project contributes towards SDG 7 (affordable energy) in the form of reducing electricity costs of the lightening.
	13.Novaservice SRL (R2): replication research, installing 1 smart wireless sensor metering system for thermal energy in flats and block of apartments with vertical heating	The project <i>intends to be gender-targeted</i> as the energy efficiency measures focus on the vulnerable segment, yet the prime scope of the project is to prove the effectiveness potential of saving some 25% of energy consumption. The project team is gender-balanced (3 women, 3 men), however, the gender disaggregated data on the block of flats that the project results could be replicated has not been collected or analyzed. Yet, the project potential of energy saving could be replicated and scaled up targeting needed households.	The project contributes to the right to adequate stand of living (art.25 Universal Declaration on Human Rights, art.11 SCER), and SDG 1 (end poverty), SDG 7 (affordable energy). No data is collected on the beneficiaries and whether it targets the most vulnerable. If the project works as claimed, the project could be replicated and scaled up targeted human rights to the most vulnerable by installing the mentioned equipment in the most needed households.
	14.LED Market SRL (R3): Educational entity lighting Energy Performance Contract with ESCO component;	The project is <i>gender-blind</i> as it does not differentiate gender needs. The project has complied with some recommendations by collecting gender disaggregated beneficiaries' data: 237 boys	The project contributes to art. 26 of the Universal Declaration of Human Rights (CRC General Comment (2001) on adequate financing), SDG 4 (free primary, secondary education), SDG 7 (affordable energy) helping reduce by some 13-50% of lighting costs, therefore redirect expense priorities to children

		and 211 girls project beneficiaries.	needs. The project could be scaled up and replicated to other educational facilities given the respect of the technical lightening conditions, or alternatively maintain the lightening expenses but improving the lightening safety of children in the educational process.
Urban planning (2)	15. Orange Moldova SRL (R1): setting up 5 smart devices monitoring air quality in Chişinău	The project is <i>gender-blind</i> as in fact does not give attention to gender. The final reporting does not return gender or geography disaggregated data on the service provided to evaluate this gender differentiated contribution. The project could be made <i>gender-targeted</i> , however not obviously based on the particular differentiated needs for the information on air quality and probably by adding actions on government or private sector response.	The project contributes to the achievement of SDG 3 (good health and well-being, given poor air quality is a factor of illnesses) and SDG 11 (inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities). The project fails to acknowledge needs differences and of the marginalized and vulnerable groups, no does it capitalize on the collected information to impact the systemic change or inform the decision-makers on the identified root problems of poor quality of air. No periodic reports on the situation evolution are provided in the final report.
	16. 3D Story SRL (R3): installing 25 3-in-1 creative benches with bushes and rubbish collector	The project intends to be <i>gender targeted</i> as the result focuses on gender equality according to the PFCP Guide and Project indicator. The project proposal installs benches in the walking promenade where mostly women with children, children use for recreation, therefore primarily beneficiaries aim to be <i>gender-responsive</i> addressing the differentiated needs of women with children. Project reports that beneficiaries of the project are mothers with kids: gender split 60% female, 40% male. The project could be scaled up to reach out to more beneficiaries in a gender-targeted approach.	The project contributes to the realization of art. 31 (right of the child to rest, leisure, recreation) CPC and SDG 11 (inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities). Project reports that beneficiaries of the project are local citizens, predominantly elderly people and mothers with kids, that is explained by the fact that the alley is used for walking for mothers with kids and babies.

## Annex 00. Overview of MTE recommendations and responses

Green	Completed at time of TE			
Yellow	Partially implemented			
Red	Incomplete			
	MTE recommendation, brief description	Management response and actions <sup>66</sup>	Comments at time of TE	Status
1.	Expand the PB membership to include additional diverse stakeholders from civil society, academia (e.g. representatives from technology or engineering departments of university), and private sector (e.g. representative from business association, chamber of commerce, or other similar representative organization for the private sector). The goal of expanding the PB membership is to increase the project's linkages with other relevant initiatives in the country, to increase creative inputs and guidance for the strategic direction of project activities, and to amplify the dissemination and awareness raising related to the project's results.	By practice and rule, UNDP undertakes a solid stakeholders' analysis during project design and building on the identified roles and functions, clarifies their contribution towards successful implementation of the project. As a response to the recommendation the project team and UNDP CO will perform an analysis of the existing Project board composition in light of the establishment of the GCL in order to avoid overlapping and ensure the best representation in project and GCL decision bodies Re-assessment of project board composition, identification of missing relevant stakeholders in PB and provision of initiation to join. An additional two members designated – European Business Association and National Agency for Research and Development.	Additional members were added. Whether the purpose of this expansion was met – to increase project linkages and increase input and guidance is not clear. There was little evidence that dissemination and awareness raising beyond the Board members themselves occurred via the Project Board.	
2.	Results framework should be revised to improve relevance of some indicators, and rationalization of key targets	UNDP CO and project team will update the project result framework on the basis of in-depth analysis of existing socio-economic situation, pandemic impact and updated management plan for GCL. Update of the existing GCL business plan with the support of GCL team, international and national experts. Approval of the updated Results framework by PB with prior approval by UNDP and RTA in accordance with GEF and UNDP rules and regulations. The updated GCL Business Plan showed that there is no need for Project result framework update	Reasoning of not updating results framework due to an updated GCL Business Plan does not seem relevant, as at TE stage, the problem issues of indicators remain. Moreover because of the late establishment of the GCL, it was probably not realistic for them to take on the delivery towards the targets single-handedly.	
3.	Increase attention on Component 3, and clarify in reporting how the MRV envisioned in the ProDoc relates to what is currently being implemented	While the project team has developed a simplified tool for MRV to capture data about the GHG emission reductions resulting from the pilot/demonstration projects (including Fast Track Challenge projects) actions will be undertaken to improve it. Re-assessment of the existing MRV tool and its improvement with the support of the MRV expert and Project team	There is evidence that a re-assessment was conducted. Nonetheless, it is still unclear to the TE how this relates to the reporting, knowledge products and learning from demonstrations that is anticipated in Component 3.	
4.	Increase attention and effort on communication and knowledge management mechanisms, as foreseen under Component 3, to clarify the strategic approach (also relates to recommendation on communication strategy for Green City Lab).	The recommendation is well noted and will be effectively followed-up. It will be taken into account for both Green City Lab and Green city project communication strategies for strengthening communication and knowledge management mechanisms. Update the Green city project communication strategy by strengthening communication and knowledge management mechanisms. The activity has been carried out as part of the UNDP CO internal exercise.	The management action on carrying out this exercise internally has ignored the cause which is the lack of a strategic approach in the knowledge management mechanism which was built in the Project design. At TE stage, a strategic approach in communication and knowledge management was still lacking both within the Project and within GCL.	
5.	Increase focus on scaling-up and replicability (by increasing adoption of	Well noted. UNDP CO will make respective budget revision in line with GEF and UNDP rules	Although the IEO site reports that demonstration	

<sup>66</sup> <https://erc.undp.org/evaluation/evaluations/detail/9647>

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	new technologies, identifying new client municipalities, etc.) of demonstration projects (including by potentially increasing the project's planned budget for the Fast Track Challenge Programme), to increase the potential for the catalytic effect of the project.	and regulations. Make a budget revision by increasing the project's planned budget for the Fast Track Challenge Programme Scale-up and replicate best demonstration projects by Green City Lab with support of GC project team (including in new client municipalities)	projects in the areas of energy efficiency and urban mobility have been implemented successfully and scaled-up in cooperation with Termoelectrica in new regions (Bălți), this recommendation from the MTE has not been implemented on a strategic level – establishing a focus on scaling-up and replicability across the demonstration and FTC programme.	
6.	Ensure legal establishment of the Green City Lab and hiring of Director as rapidly as possible, taking into consideration that the new law on the establishment of NGOs is in effect starting September 1st, 2020.	Well noted. The process was initiated. Support Green City Lab legal establishment and director hiring, including necessary board approvals	The GCL director was selected and GCL was officially registered in March 2021	
7.	The Green City Lab should articulate as quickly and clearly as possible what the role for the private sector is vis-à-vis the Green City Lab, now that the private sector has stepped up as founding members. The private sector is not required to contribute financially, at least not in the near term, so their role needs to be clearly defined. The Green City Lab is focused on serving Chişinău and other municipalities, so there is a need to identify the role and involvement of the private sector. There should also be a transparent discussion with the founding members on the role of subsequent Green City Lab members. In addition, there should be a transparent discussion to ensure clarity on how all stakeholders involved can avoid any perceptions of conflicts of interest between the work of the Green City Lab and the roles of the private sector. Rules and procedures for dealing with conflict of interest should be prepared and agreed.	Well noted. The process was initiated. The role of each founding member in the NGO activity is regulated by the national legislation to avoid conflict of interests. However, an open discussion with each GCL member during the operationalization and business planning process will be undertaken to identify the role and contribution to GCL sustainability. Identification of the role of each founding member in GCL sustainable functioning Participation of the GCL founding members at the GCL business planning process Developing internal set of rules and procedures for dealing with conflict of interest within the GCL. The role of each founding member in GCL was clarified in statutory documentation. The GCL founding members participated in GCL Business planning process, being part in different meetings and also having the possibility to comment on draft document. The final document will be presented to the GCL board meeting on 15 November 2021. The documents were developed and Declarations are being signed by each new staff member upon employment.	The GCL founding members from the private sector are interested in the development of the GCL. There is also evidence that founding members and other private companies are interested in contributing co-financing investments in activities.	
8.	The project should develop a draft communications and stakeholder engagement strategy for the Green City Lab immediately (even before the Green City Lab is operational), which can provide direction for building and ensuring engagement and buy-in by Chişinău Municipality and the private sector partners once the Green City Lab is operational.	The recommendation will be broadly shared with the communication specialist for effective follow-up. Recommendation will be taken into account when developing Green City Lab communication strategy and updated business plan. Develop the communications and stakeholder engagement strategy for the Green City Lab for building and ensuring engagement and buy-in by Chişinău Municipality, and the private sector partners	The stakeholder engagement and communication strategy were incorporated as annex to the GCL business plan which was approved in November 2021. The TE notes that the activities and approach is likened more to communication and marketing. A strategy and activities which relate to stakeholder engagement should take priority in the future, if the GCL would like to continue a catalytic role.	
9.	Ensure all of the necessary operational documents for the Green City Lab (bylaws, internal guidelines, operational manual, etc.) are finalized as quickly as possible, with full transparency and appropriate stakeholder input. In conjunction, convene the Green City Lab board as soon as possible.	Well noted. The process was initiated. Draft operational documents were developed according to national legislation and awaiting be approved by the GCL founding members after executive director process finalize. Finalize and approve all of the necessary operational documents for the Green City Lab (by laws, internal guidelines, operational manual, etc.) by Green City Lab board.	The set of internal regulations was developed and provided to GCL.	
10.	As soon as Green City Lab Director is in place, review and update the business plan financial figures in terms of the revenue required for financial sustainability of the Green City Lab – financial projection scenarios over time, based on required revenues based on various staffing and expense levels. This may be done with the input of an international Technical Advisor, who can support the project and the operationalization of the Green City Lab on multiple aspects. This should include revising the annual budget and financial sustainability plan to cover administrative and operational costs and identify income	Well noted. UNDP CO will provide overall support to the GCL team in business plan update and pay attention to a more realistic revenue target to ensure self-sustainability of GCL. Update the existing GCL business plan with support from the GCL team and international and national experts The updated Business plan was finalized and will be presented to the GCL board meeting on 15 November 2021.	Completed.	

*Moldova Sustainable Green Cities Project**Terminal Evaluation Report*

	sources. This can be achieved by diversification of activities: serving as PMU for grants, loans, governmental funds as well as providing paid services. The Prodoc provides an estimated required revenue figure of \$200K/year (dating back to the 2016-2017 project development timeframe), and this has been simply echoed in all corresponding documents since this time, including the most recent business plan, but this figure can be much more realistically updated once the Green City Lab is established.			
11.	The project team, Green City Lab, and UNDP should conduct discussions with bilateral and multilateral donor agencies and international financial institutions (possibly in the context of the Chişinău Municipality donor roundtable established in summer 2020) to determine the financial feasibility of the Green City Lab acting as a PMU for Chişinău. This could be done under the umbrella of the Green City Action Plan. This could be organized as a donor roundtable for the Green City Action Plan. (Building on the experience of national donor coordination on water management).	Well noted. UNDP will follow up on this recommendation and enter into separate discussions with Chişinău municipality and potential donors agencies and IFIs to ensure financial feasibility and sustainability of the GCL.  GCL team with support of project team and CO will do the donor mapping and organize a donor meetings/forum to present the pipeline of initiatives.	UNDP Moldova further reported that a donor's meeting was organised in February 2023.  GCL team with support of project team and CO conducted a donor mapping and a further donor meeting is to be organised before the end of the Project.	
12.	Once the SGC project is completed, UNDP should seek to leverage GCL expertise to catalyse success of other UNDP-supported initiatives and projects.	UNDP planning to sign at the beginning of 2024, as the project ends, a collaboration agreement to establish the future partnership opportunities, including by implementing joint initiatives. Our vision is that GCL is now a sustainable partner and can share it's expertise and give added value for projects implementation. We already started the discussion and the work on the agreement development. Also, GCL will be able to apply to UNDP tenders to provide services according to the different projects needs and, of course, to apply to further grant programmes of UNDP.	This recommendation is expected to commence after Project completion. There is evidence that this will be taken up by UNDP as suggested by the MTE.	
13.	UNDP and the Project Team should try to ensure that all key Green City Lab initial support staff are hired in parallel with the Director, so that the Director is able to move rapidly ahead with substantive issues in the first 6 months of the Green City Lab's operation, rather than dealing with administrative requirements.	Well noted. According to the developed Business Plan, the existing GC project officer responsible for demo projects implementation should migrate to GCL as a development/technical expert. An additional procurement/financial assistant will be hired once GCL will operationalized. Transfer of the GC project officer responsible for demo projects implementation to GCL as a development/technical expert. Selection and recruitment of the procurement/financial assistant The project team, Green City Lab, and UNDP should conduct discussions with bilateral and multilateral donor agencies and international financial institutions (possibly in the context of the Chişinău Municipality donor roundtable established in summer 2020) to determine the financial feasibility of the Green City Lab acting as a PMU for Chişinău. This could be done under the umbrella of the Green City Action Plan. This could be organized as a donor roundtable for the Green City Action Plan. (Building on the experience of national donor coordination on water management). Please note that a Donors' meeting was organized in February 2022, with participation of different donors' institutions with activity in Moldova. At the event were presented the experience of GCL in implementing projects, as well as discussed the future plans and possibilities of partnerships. GCL is working on materializing the joint partnerships. Another similar event is planned for this Autumn. At the same time, please note that the GCL Business Plan was approved by their Board in November 2021. Also, the documents are continuously updated according to the new realities and organizational needs.	It was self-reported that the transfer of the GC project officer responsible for demo projects implementation to GCL as a development/technical expert was not relevant any more as the person left the project. Recruitment of the procurement/financial assistant for the GCL was done.  Nonetheless, TE feel this does not address the issue pertaining to the MTE recommendation. It was observed over the TE mission that the GCL still relies heavily on the Project and UNDP. It would be important to rectify this thoroughly before Project closure.	

## Annex A: Terms of Reference

### Terms of Reference Terminal Evaluation of the UNDP GEF Project “Moldova sustainable green cities project”

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Consultancy title:	International consultant to perform the Terminal Evaluation of the UNDP-GEF “Moldova sustainable green cities project”
Type of Contract:	Individual Contract (IC)
Assignment type:	International consultant
Section/Unit:	Environment and Energy Cluster
Duty Station:	Home based with mission to Chişinău, Republic of Moldova
Languages required:	English, working level of Romanian or Russian will be an asset
Starting Date:	June 2023
Duration of Assignment:	25 working days until September 2023

#### 1. INTRODUCTION

In accordance with UNDP and GEF M&E policies and procedures, all full- and medium-sized UNDP-supported GEF-financed projects are required to undergo a Terminal Evaluation (TE) at the end of the project. This Terms of Reference (ToR) sets out the expectations for the TE of the full-sized project titled Moldova Sustainable Green Cities – Catalyzing investment in sustainable green cities in the Republic of Moldova using a holistic integrated urban planning approach (PIMS# 5492) implemented through the Ministry of Agriculture, Regional Development and Environment with the UNDP Moldova’s Support to National Implementation Modality (Support to NIM). The project started on the 08 November 2017 and is in its sixth year of implementation. The TE process must follow the guidance outlined in the document ‘Guidance For Conducting Terminal Evaluations of UNDP-Supported, GEF-Financed Projects’ ([link](#)).

#### 2. PROJECT BACKGROUND AND CONTEXT

The UNDP GEF “Moldova Sustainable Green Cities – Catalyzing investment in sustainable green cities in the Republic of Moldova using a holistic integrated urban planning approach”, funded by the Global Environment Facilities (GEF) and co-financed and implemented by the United Nations Development Programme. Project was launched in 08 November 2017 with an implementation timeframe of five (5) years, and later was non-costs extended until 08 January 2024.

The project was designed to: catalyze investments in low carbon green urban development based on integrated urban planning approach, by encouraging innovation, participatory planning and partnerships between a variety of public and private sector entities.

As a vehicle for this, the project supported the design, launching, and establishment of the Green City Lab to become the leading knowledge management and networking platform, clearing house, an inter-mediator of finance and a source of innovations and expertise to catalyze sustainable low carbon green city development in Moldova with a mission to transform Chişinău and other urban centers in Moldova into modern green and smart European cities with improved quality of life for their citizens, while also demonstrating opportunities for sustainable economic growth. At the end of

project, the Green City Lab should be set up as a self-sustaining entity meaning that it will need to operate on a commercial basis, that does not rely on technical assistance funding alone, so that by the end of the project it can continue to operate and to grow. In order to do this, the Green City Lab should forge new partnerships and alliances and generate revenues from other sources beyond only this project. The direct global environment benefits of the project are expected to reach at least 200,000 tons of CO<sub>2</sub>eq, resulting from the concrete pilot/demonstration projects in the building energy efficiency, transport and waste sectors. These are expected to be complemented by project's indirect GHG emission reduction impact at the estimated amount of 2.4 million tons of CO<sub>2</sub>eq by scaling up, replicating and mainstreaming the project results and activities, including those of the Green City Lab.

The sustainability of the Green City Lab will be measured by its ability to continue to operate beyond the lifetime of the project and to secure additional resources for investments in low carbon initiatives so that once the project finishes the Green City Lab will continue its work. A key target for the project is that at the end the project the Green City Lab has to be fully functional and well-equipped networking platform for synergizing efforts of central and local authorities, business, financing institutions, as well as academic and expertise centers, and civil society in the realm of low carbon green city development. At the end of UNDP-GEF project, Green City Lab should be external grant financing not less than USD\$ 200,000, including USD\$ 40,000 USD for covering the running and overhead costs.

The project is implemented following UNDP's Support to National Implementation Modality (Support to NIM), according to the Standard Basic Assistance Agreement between UNDP and the Government of Moldova and the Country Programme.

The mid-term review of the project was completed in October 2020, before the Green City Lab was founded and officially registered. The review came with recommendations on Green City Lab establishment, including involving the private sector.

### **3. TE PURPOSE**

The TE report will assess the achievement of project results against what was expected to be achieved, and draw lessons that can both improve the sustainability of benefits from this project, and aid in the overall enhancement of UNDP programming. The TE report promotes accountability and transparency, and assesses the extent of project accomplishments.

TE will be conducted in order to assess and document project results, and the contribution of these results towards achieving GEF strategic objectives aimed at global environmental benefits, as well as to synthesize lessons that can help to improve the selection, design and implementation of future UNDP-supported GEF-financed initiatives.

### **4. TE APPROACH & METHODOLOGY**

The TE report must provide evidence-based information that is credible, reliable and useful.

The TE team (one team leader (international consultant) and one team expert (national consultant from the Republic of Moldova) will review all relevant sources of information including documents prepared during the preparation phase (i.e. PIF, UNDP Initiation Plan, UNDP Social and Environmental Screening Procedure/SESP) the Project Document, project reports including annual PIRs, project budget revisions, lesson learned reports, national strategic and legal documents, and any other materials that the team considers useful for this evidence-based evaluation. The TE team will review the baseline and midterm GEF focal area Core Indicators/Tracking Tools submitted to the

GEF at the CEO endorsement and midterm stages and the terminal Core Indicators/Tracking Tools that must be completed before the TE field mission begins.

The TE team is expected to follow a participatory and consultative approach ensuring close engagement with the Project Team, government counterparts (the GEF Operational Focal Point), Implementing Partners, the UNDP Country Office(s), the Regional Technical Advisor, direct beneficiaries and other stakeholders.

Engagement of stakeholders is vital to a successful TE. Stakeholder involvement should include interviews with stakeholders who have project responsibilities, including but not limited to Chişinău Municipality, Ministry of Energy, Ministry of Environment, Energy Efficiency Agency; executing agencies, senior officials and task team/component leaders, key experts and consultants in the subject area, Project Board, project beneficiaries, academia, local government and CSOs, etc. Additionally, the TE team is expected to conduct field missions to Chişinău, Sângerei, Bălţi, Sculeni. The International Evaluator will have to operate remotely, with a mission to Chişinău, Republica of Moldova, while the National Evaluator will operate from Moldova.

The specific design and methodology for the TE should emerge from consultations between the TE team and the above-mentioned parties regarding what is appropriate and feasible for meeting the TE purpose and objectives and answering the evaluation questions, given limitations of budget, time and data. The TE team must, however, use gender-responsive methodologies and tools and ensure that gender equality and women's empowerment, as well as other cross-cutting issues and SDGs are incorporated into the TE report.

The final methodological approach including interview schedule, field visits and data to be used in the evaluation must be clearly outlined in the TE Inception Report and be fully discussed and agreed between UNDP, stakeholders and the TE team.

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

## **5. DETAILED SCOPE OF THE TE**

The TE will assess project performance against expectations set out in the project's Logical Framework/Results Framework (see ToR Annex A). The TE will assess results according to the criteria outlined in the Guidance for TEs of UNDP-supported GEF-financed Projects ([link](#)). The Findings section of the TE report will cover the topics listed below.

A full outline of the TE report's content is provided in ToR Annex C.

The asterisk “(\*)” indicates criteria for which a rating is required.

### Findings

#### i. Project Design/Formulation

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



- Linkages between project and other interventions within the sector
- Management arrangements

#### ii. Project Implementation

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

#### iii. Project Results

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

#### Main Findings, Conclusions, Recommendations and Lessons Learned

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

interventions. When possible, the TE team should include examples of good practices in project design and implementation.

- It is important for the conclusions, recommendations and lessons learned of the TE report to include results related to gender equality and empowerment of women.

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

**ToR Table 2: Evaluation Ratings Table for “Moldova sustainable green cities project”**

Monitoring & Evaluation (M&E)	Rating <sup>67</sup>
M&E design at entry	
M&E Plan Implementation	
Overall Quality of M&E	
Implementation & Execution	Rating
Quality of UNDP Implementation/Oversight	
Quality of Implementing Partner Execution	
Overall quality of Implementation/Execution	
Assessment of Outcomes	Rating
Relevance	
Effectiveness	
Efficiency	
Overall Project Outcome Rating	
Sustainability	Rating
Financial resources	
Socio-political/economic	
Institutional framework and governance	
Environmental	
Overall Likelihood of Sustainability	

## 6. TIMEFRAME

The total duration of the TE will be approximately 25 working days over a time period of 15 weeks starting on 15 of June. The tentative TE timeframe is as follows:

Timeframe	Activity
05 June 2023	Application closes
Beginning June 2023	Selection of TE team
Beginning June 2023	Preparation period for TE team (handover of documentation)
End June 2023 (2-4 days)	Document review and preparation of TE Inception Report
Beginning July 2023 (2-3 days)	Finalization and Validation of TE Inception Report; latest start of TE mission
July – Mid-August 2023 (up to 10 days)	TE mission: stakeholder meetings, interviews, field visits, etc.

<sup>67</sup> Outcomes, Effectiveness, Efficiency, M&E, I&E Execution, Relevance are rated on a 6-point rating scale: 6 = Highly Satisfactory (HS), 5 = Satisfactory (S), 4 = Moderately Satisfactory (MS), 3 = Moderately Unsatisfactory (MU), 2 = Unsatisfactory (U), 1 = Highly Unsatisfactory (HU). Sustainability is rated on a 4-point scale: 4 = Likely (L), 3 = Moderately Likely (ML), 2 = Moderately Unlikely (MU), 1 = Unlikely (U)

<i>August 2023 (1 day)</i>	Mission wrap-up meeting & presentation of initial findings; earliest end of TE mission
<i>August 2023 (5-7 days)</i>	Preparation of draft TE report
<i>August 2023</i>	Circulation of draft TE report for comments
<i>August 2023 (1-2 days)</i>	Incorporation of comments on draft TE report into Audit Trail & finalization of TE report
<i>End August 2023</i>	Preparation and Issuance of Management Response
<i>Mid of September 2023</i>	Expected date of full TE completion

Options for site visits (to be conducted by national consultant) should be provided in the TE Inception Report.

## 7. TE DELIVERABLES

#	Deliverable	Description	Timing	Responsibilities
1	TE Inception Report	TE team clarifies objectives, methodology and timing of the TE	No later than 2 weeks before the TE mission: <i>Beginning July 2023</i>	TE team submits Inception Report to Commissioning Unit and project management
2	Presentation	Initial Findings	End of TE mission: <i>July 2023</i>	TE team presents to Commissioning Unit and project management
3	Draft TE Report	Full draft report (using guidelines on report content in ToR Annex C) with annexes	Within 3 weeks of end of TE mission: <i>August 2023</i>	TE team submits to Commissioning Unit; reviewed by BPPS-GEF RTA, Project Coordinating Unit, GEF OFP
5	Final TE Report* + Audit Trail	Revised final report and TE Audit trail in which the TE details how all received comments have (and have not) been addressed in the final TE report (See template in ToR Annex H)	Within 1 week of receiving comments on draft report: <i>Mid-September 2023</i>	TE team submits both documents to the Commissioning Unit

\*All final TE reports will be quality assessed by the UNDP Independent Evaluation Office (IEO). Details of the IEO's quality assessment of decentralized evaluations can be found in Section 6 of the UNDP Evaluation Guidelines.<sup>68</sup>

## **8. TE ARRANGEMENTS**

The principal responsibility for managing the TE resides with the Commissioning Unit. The Commissioning Unit for this project's TE is UNDP Moldova. A team of two independent evaluators will conduct the TE – one team leader (international consultant with experience and exposure to projects and evaluations in other regions) and one team expert (national consultant from the Republic of Moldova). The international consultant (team leader) will report to the UNDP Moldova Country Office and work closely also with the UNDP GEF Regional Technical Advisor on climate change mitigation, based in Istanbul.

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

## **9. TE TEAM COMPOSITION**

A team of two independent evaluators will conduct the TE – one team leader (with experience and exposure to projects and evaluations in other regions) and one team expert, usually from the country of the project (Moldova). The team leader will be responsible for the overall design and writing of the TE report, including TE Inception Report, develop the evaluation approach and methodology, participate in the TE mission, interviews, and site visits. The team expert will work with the Project Team in developing the TE itinerary, including detailed mission plan and evaluation criteria matrix, participate in writing of the TE report, including TE Inception Report, participate in the TE mission, interviews, and site visits.

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

The international evaluator (Team leader) should have the following competences:

### Education

- Master's degree in urban planning and development, environment protection or other closely related field;

### Experience

- Relevant experience with results-based management evaluation methodologies;
- Experience applying SMART indicators and reconstructing or validating baseline scenarios;
- Competence in adaptive management, as applied to as applied to climate change adaptation and mitigation area;
- Experience in evaluating projects;
- Experience working in Europe and CIS region;
- Experience in relevant technical areas for at least 10 years;

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<sup>68</sup> Access at: <http://web.undp.org/evaluation/guideline/section-6.shtml>

- Demonstrated understanding of issues related to gender and climate change adaptation and mitigation area; experience in gender responsive evaluation and analysis;
- Excellent communication skills;
- Demonstrable analytical skills;
- Project evaluation/review experience within United Nations system will be considered an asset;
- Experience with implementing evaluations remotely will be considered an asset.

#### Language

- Fluency in written and spoken English;
- Working level of Romanian and/or Russian will be an asset.

### **10. EVALUATOR ETHICS**

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

### **11. PAYMENT SCHEDULE**

- 20% payment upon satisfactory delivery of the final TE Inception Report and approval by the Commissioning Unit
- 40% payment upon satisfactory delivery of the draft TE report to the Commissioning Unit
- 40% payment upon satisfactory delivery of the final TE report and approval by the Commissioning Unit and RTA (via signatures on the TE Report Clearance Form) and delivery of completed TE Audit Trail

Criteria for issuing the final payment of 40%:

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

### **12. APPLICATION PROCESS<sup>69</sup>**

Recommended Presentation of Proposal:

- a) **Letter of Confirmation of Interest and Availability** using the [template<sup>70</sup>](#) provided by UNDP;

<sup>69</sup> Engagement of evaluators should be done in line with guidelines for hiring consultants in the POPP <https://popp.undp.org/SitePages/POPPRoot.aspx>

- b) CV and a **Personal History Form** ([P11 form](#)<sup>71</sup>);
- c) Brief description of **approach to work/technical proposal** of why the individual considers him/herself as the most suitable for the assignment, and a proposed methodology on how they will approach and complete the assignment; (max 1 page)
- d) **Financial Proposal** that indicates the all-inclusive fixed total contract price and all other travel related costs (such as flight ticket, per diem, etc), supported by a breakdown of costs, as per template attached to the [Letter of Confirmation of Interest template](#). If an applicant is employed by an organization/company/institution, and he/she expects his/her employer to charge a management fee in the process of releasing him/her to UNDP under Reimbursable Loan Agreement (RLA), the applicant must indicate at this point, and ensure that all such costs are duly incorporated in the financial proposal submitted to UNDP.

All application materials should be submitted to the address United Nations House 131, 31 August str., Chişinău, MD-2012, Moldova in a sealed envelope indicating the following reference “Consultant for Terminal Evaluation of Moldova sustainable green cities project” or by email at the following address ONLY: Natalia.ibrisim@undp.org by 5 June 2023, 16.00 CET. Incomplete applications will be excluded from further consideration.

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

### 13. EVALUATION

Initially, individual consultants will be **short-listed** based on the following minimum qualification criteria:

- Master’s degree in urban planning and development, environment protection, energy or other closely related field;
- Experience in evaluating projects; Experience working in Europe and CIS region;
- Experience in relevant technical areas for at least 10 years.

The short-listed individual consultants will be further evaluated based on the following methodology:

#### Cumulative analysis

The award of the contract shall be made to the individual consultant whose offer has been evaluated and determined as:

- a) responsive/ compliant/ acceptable, and
- b) having received the highest score out of a pre-determined set of weighted technical and financial criteria specific to the solicitation.
  - Technical Criteria weight – 70% (70 pts);

<sup>70</sup><https://intranet.undp.org/unit/bom/pso/Support%20documents%20on%20IC%20Guidelines/Template%20for%20Confirmation%20of%20Interest%20and%20Submission%20of%20Financial%20Proposal.docx>

<sup>71</sup>[http://www.undp.org/content/dam/undp/library/corporate/Careers/P11\\_Personal\\_history\\_form.doc](http://www.undp.org/content/dam/undp/library/corporate/Careers/P11_Personal_history_form.doc)

- Financial Criteria weight – 30% (30 pts).

Only candidates obtaining a minimum of 49 points would be considered for the Financial Evaluation.

Criteria	Scoring	Maximum Points Obtainable
<b><u>Technical</u></b>		
Master's degree in urban planning and development, environment protection or other closely related field	(Master's degree or higher – 5 pts.)	5
Experience in evaluating projects	(<2 assignments - 0 pts., 2 assignments – 10 pts., more than 2 assignments – 15 pts.)	15
Experience in relevant technical areas for at least 10 years	(10 years – 10 pts., each additional year – 5 pts., up to 20 pts.)	20
Experience working in Europe and CIS region	(5 pts.)	5
Experience applying SMART indicators and reconstructing or validating baseline scenarios	(5 pts.)	5
Project evaluation experiences within United Nations system will be considered an asset	(each assignment of such work – 2.5 pts., up to 10 pts.)	10
Fluency in written and spoken English	(5 pts.)	5
Working level of Romanian and/or Russian will be an asset	(Romanian: 2.5 pts.; Russian: 2.5 pts.)	5
Maximum Total Technical Scoring		70

<b><u>Financial</u></b>		
Evaluation of submitted financial offers will be done based on the following formula: <b><u>S = Fmin / F * 30</u></b> S – score received on financial evaluation; Fmin – the lowest financial offer out of all the submitted offers qualified over the technical evaluation round; F – financial offer under consideration		<b>30</b>

### Winning candidate

The winning candidate will be the candidate, who has accumulated the highest aggregated score (technical scoring + financial scoring).

### 14. TOR ANNEXES

- ToR Annex A: Project Logical/Results Framework
- ToR Annex B: Project Information Package to be reviewed by TE team
- ToR Annex C: Content of the TE report
- ToR Annex D: Evaluation Criteria Matrix template
- ToR Annex E: UNEG Code of Conduct for Evaluators
- ToR Annex F: TE Rating Scales
- ToR Annex G: TE Report Clearance Form
- ToR Annex H: TE Audit Trail





## ToR Annex A: Project Logical/Results Framework

<b>This project will contribute to the following Sustainable Development Goal (s):</b> SDG 13: Take urgent action to combat climate change and its impacts, SDG 11: Make cities and human settlements inclusive, safe, resilient and sustainable					
<b>This project will contribute to the following country outcome included in the UNDAF/Country Programme Document:</b> Outcome 3.2 - National policies and strengthened capacities enable climate and disaster resilient, low emission economic development and sustainable consumption. <b>Outcome indicator:</b> Share of renewable energy in the gross domestic consumption; <b>Baseline:</b> 5%					
<b>This project will be linked to the following output of the UNDP Strategic Plan:</b>					
Output 1.3: Solutions developed at national and sub-national levels for sustainable management of natural resources, ecosystem services, chemicals and waste.					
<b>Output 1.4: Scaled up action on climate change adaptation and mitigation cross sectors which is funded and implemented.</b>					
Output 1.5: Inclusive and sustainable solutions adopted to achieve increased energy efficiency and universal modern energy access (especially off-grid sources of renewable energy)					
Output 2.5: Legal and regulatory frameworks, policies and institutions enabled to ensure the conservation, sustainable use, and access and benefit sharing of natural resources, biodiversity and ecosystems, in line with international conventions and national legislation.					
	Objective and Outcome Indicators	Baseline 72	Mid-term Target <sup>73</sup>	End of Project Target	Assumptions <sup>74</sup>
<b>Project Objective:</b> To catalyze investments in low carbon green urban development by an integrated urban planning approach and by encouraging innovation, participatory planning and partnerships with a variety of public and private sector entities.	<i>Mandatory Indicator 1:</i> Extent to which climate finance is being accessed (IRRF 1.4.1 a)	0	At least USD 2 million leveraged for investments directly initiated or supported by the GCL	At least USD 10 million leveraged for investments directly initiated or supported by the GCL	The projects initiated by the GCL meet the criteria of the targeted financiers
	<i>Mandatory indicator 2:</i> Number of direct project beneficiaries with gender disaggregated data.	0	5,000 people, from whom not more than 60% for the same gender	20,000 people, from whom not more than 60% for the same gender	The project MRV mechanism is collecting also gender specific data
	<i>Indicator 3:</i> Direct GHG emission reduction impact of the project	0	20 ktons of CO <sub>2eq</sub> calculated over a 20 year lifetime of the investment	200 ktons of CO <sub>2eq</sub> calculated over 20 year lifetime of the investment	Successfully completed pilot/demo projects with adequate MRV in place
<b>Component/Outcome<sup>75</sup> 1:</b> Fully operational Green City Lab recognized by the key stakeholders as the leading innovation, knowledge management and networking platform which is profitable and a source of expertise for catalyzing sustainable low carbon green city development in	<i>Indicator 4:</i> Status of the GCL and the specific outputs under Outcome 1 to support its operations	0	Business Plan for the GCL is finalized and agreed and implemented.  The GCL established as a self-standing public or semi-public institution (prior to the mid-term review) with a shareholders agreement, articles of association, a Board, and an Executive Director appointed by the Board, with all the outputs of its work	The GCL established as a self-standing public or semi-public institution with all the outputs of the attached work plan under Outcome 1 completed. The GCL must be able to continue operations and to grow as it has alternative sources of revenue outside of the project and it should have at least 5 clients, each generating revenues of \$40,000 per	The required co-financing and other contributions for the GCL establishment and operationalization are materializing.  Additional clients (at least 5) and fees (at least \$200,000 per annum) are secured and revenue is generated.  There are at least 7 GCL staff who do not need to be laid off due to the project closing as the GCL will have other clients and fees to continue operating.

<sup>72</sup> Baseline, mid-term and end of project target levels must be expressed in the same neutral unit of analysis as the corresponding indicator. Baseline is the current/original status or condition and need to be quantified. The baseline must be established before the project document is submitted to the GEF for final approval. The baseline values will be used to measure the success of the project through implementation monitoring and evaluation.

<sup>73</sup> Target is the change in the baseline value that will be achieved by the mid-term review and then again by the terminal evaluation.

<sup>74</sup> Risks must be outlined in the Feasibility section of this project document.

<sup>75</sup> Outcomes are short to medium term results that the project makes a contribution towards, and that are designed to help achieve the longer term objective. Achievement of outcomes will be influenced both by project outputs and additional factors that may be outside the direct control of the project.

Moldova with secured funding to continue its operation also after the UNDP/GEF project closure.			plan under Outcome 1 (see Annex A) completed or being at an advance stage of implementation.	annum or more meaning that the GCL should have revenues of at least \$200,000 per annum by the end of the project.	
	<i>Indicator 5:</i> Number of partnerships for green city development established in the frame of jointly implemented and/or developed projects and measures with gender disaggregated data, as applicable.	0	At least 1 formal co-operation agreements in the frame of jointly developed and/or implemented projects or other initiatives with at least one public or private entities, of which not more than 70% managed by the same gender.	At least 5 formal co-operation agreements in the frame of jointly developed and/or implemented projects or other initiatives with at least 10 public or private entities, of which not more than 70% managed by the same gender.	It is assumed that the GCL is operating before the mid-term review with an Executive Director appointed and is able to enter into the first formal cooperation agreement prior to the mid-term review.
	<i>Indicator 6:</i> Value of signed contracts / agreements not funded by GEF resources for covering the GCL operational costs	0	First non-GEF funded contract or agreement signed by the GCL by the time of the mid-term review by which the GCL will offer a 'fee for services' contract to the client in return for design and implementation of green urban development strategies	At least 5 or more signed non-GEF funded contracts or agreements at the combined value of at least USD 500,000 to enable GCL to continue its financially sustainable operation after the end of the project.  The GCL shall have a target of annual revenues of \$200,000 per annum by the end of the project, not including fees that are earned from the project itself. This should be broken down into the GCL having at least 5 clients who pay at least \$40,000 USD per annum each.	The GCL shall aim to have signed contracts worth at least \$500,000 or more by the end of the project and to have annual revenues of at least \$200,000 per annum by the end of the project.  The GCL legal status must allow it to operate in a manner similarly to a not-for profit company or other similar modality that allows for the provision and marketing of its services for a fee to both the public and private sector as well as its participation in public and private sector procurement calls already during the implementation of the UNDP/GEF project.
<b>Component/ Outcome 2:</b> Successfully completed pilot/demonstration projects with related monitoring, reporting and verification of the results in the areas of: i) integrated and participatory urban land use and mobility planning; ii) residential building energy efficiency and renewable energy use; iii) low carbon mobility; and iv) resource efficient waste management.	<i>Indicator 7:</i> The extent, to which integrated and participatory planning methodologies are taken into use in updating the Chişinău General Urban Development Plan (PUG) and related zonal plans, including gender disaggregated data on the number stakeholders engaged into the process.	Although guideline for green urban planning has been developed with support of UNDP-GEF ESCO project, General Urban Development Plan for Chişinău is outdated	The GCL team and the Chişinău Municipality working together for updating the PUG based on an integrated participatory approach with specific outputs completed on time, as outlined in the project work plan and having a balance participation of both male and female stakeholders without a single gender exceeding a share of 60%	At least one zonal plan finalized based on an integrated and participatory planning methodology suggested by the Green City Lab and having a balance participation of both male and female stakeholders without a single gender exceeding a share of 60%.	Formal co-operation agreement between the GCL and Chişinău municipality for the development of the PUG based on an integrated participatory approach completed with adequate details of implementation.
	<i>Indicator 8:</i> Status of the pilot/demo projects for each of the targeted	Baseline to be developed after	The design and financing decisions completed for at least one pilot/demo project	Completed construction of at least one pilot/demo project from each targeted subsector	Agreements on the required institutional, implementation and co-financing arrangements

	subsectors	selection of demonstration projects	from each targeted subsector with a potential to collectively meet the direct GHG reduction target of the project	(i.e – at least 4 projects in total) with MRV data on the achieved GHG savings for at least one year operating period.	
	Indicator 9: Number of projects supported by the “Fast Track Challenge Program” with monitored gender disaggregated data on project beneficiaries and their contribution to supporting gender equality.	NA	At least 3 projects with monitored, verified and reported data, as applicable, on the achieved GHG savings, of which at least 1 project having also a strong positive impact on supporting gender equality	At least 10 projects with monitored, verified and reported data, as applicable, on the achieved GHG savings, of which at least 3 projects having also a strong positive impact on supporting gender equality	The challenge program and prizes can be made attractive enough for the targeted participants to attract good quality proposals.
<b>Component/ Outcome 3:</b> Monitoring and Evaluation, knowledge management and replication of project results.	<i>Indicator 10:</i> 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.  Introduction of EMIS with open data access for selected public (and as applicable) residential buildings, PUCs and other agreed objects.	An established MRV system (including EMIS) with open data access and institutional arrangements and agreements in place to continue with data reporting also after the project on all the supported pilot projects and other selected GHG emission sources within the City.	Required co-operation agreements with project owners, Chişinău municipality and, as applicable, with Energy Efficiency Agency for the introduction of the project MRV system and EMIS with open data access in place.
	<i>Indicator 11:</i> Agreed knowledge management (KM) products and events delivered	0	The virtual Green City KM platform established  At least one international Green City KM event (workshop or seminar) organized	The Green City KM platform sustained after the project  A lessons learnt report finalized  An international end of the project workshop organized	
	<i>Indicator 12:</i> Number of EoIs received for replicating the project intervention strategy, specific technical solutions or business models for new projects and/or municipalities	0	0		At least one new municipality and 5 project proponents expressing interest to replicate one or more of the supported interventions.

**ToR Annex B: Project Information Package to be reviewed by TE team**

#	Item (electronic versions preferred if available)
1	Project Identification Form (PIF)
2	UNDP Initiation Plan
3	Final UNDP-GEF Project Document with all annexes
4	CEO Endorsement Request
5	UNDP Social and Environmental Screening Procedure (SESP) and associated management plans (if any)
6	Inception Workshop Report
7	Mid-Term Review report and management response to MTR recommendations
8	All Project Implementation Reports (PIRs)
9	Progress reports (quarterly, semi-annual or annual, with associated workplans and financial reports)
10	Oversight mission reports
11	Minutes of Project Board Meetings and of other meetings (i.e. Project Appraisal Committee meetings)
12	GEF Tracking Tools (from CEO Endorsement, midterm and terminal stages)
13	GEF/LDCF/SCCF Core Indicators (from PIF, CEO Endorsement, midterm and terminal stages); for GEF-6 and GEF-7 projects only
14	Financial data, including actual expenditures by project outcome, including management costs, and including documentation of any significant budget revisions
15	Co-financing data with expected and actual contributions broken down by type of co-financing, source, and whether the contribution is considered as investment mobilized or recurring expenditures
16	Audit reports
17	Electronic copies of project outputs (booklets, manuals, technical reports, articles, etc.)
18	Sample of project communications materials
19	Summary list of formal meetings, workshops, etc. held, with date, location, topic, and number of participants
20	Any relevant socio-economic monitoring data, such as average incomes / employment levels of stakeholders in the target area, change in revenue related to project activities
21	List of contracts and procurement items over ~US\$5,000 (i.e. organizations or companies contracted for project outputs, etc., except in cases of confidential information)
22	List of related projects/initiatives contributing to project objectives approved/started after GEF project approval (i.e. any leveraged or “catalytic” results)
23	Data on relevant project website activity – e.g. number of unique visitors per month, number of page views, etc. over relevant time period, if available
24	UNDP Country Programme Document (CPD)
25	List/map of project sites, highlighting suggested visits
26	List and contact details for project staff, key project stakeholders, including Project Board members, RTA, Project Team members, and other partners to be consulted
27	Project deliverables that provide documentary evidence of achievement towards project outcomes
	<i>Add documents, as required</i>

**ToR Annex C: Content of the TE report**

- i. Title page
  - Title of UNDP-supported GEF-financed project
  - UNDP PIMS ID and GEF ID
  - TE timeframe and date of final TE report
  - Region and countries included in the project
  - GEF Focal Area/Strategic Program
  - Executing Agency, Implementing partner and other project partners
  - TE Team members
- ii. Acknowledgements
- iii. Table of Contents
- iv. Acronyms and Abbreviations
1. Executive Summary (3-4 pages)
  - Project Information Table
  - Project Description (brief)
  - Evaluation Ratings Table
  - Concise summary of findings, conclusions and lessons learned
  - Recommendations summary table
2. Introduction (2-3 pages)
  - Purpose and objective of the TE
  - Scope
  - Methodology
  - Data Collection & Analysis
  - Ethics
  - Limitations to the evaluation
  - Structure of the TE report
3. Project Description (3-5 pages)
  - Project start and duration, including milestones
  - Development context: environmental, socio-economic, institutional, and policy factors relevant to the project objective and scope
  - Problems that the project sought to address: threats and barriers targeted
  - Immediate and development objectives of the project
  - Expected results
  - Main stakeholders: summary list
  - Theory of Change
4. Findings
 

(in addition to a descriptive assessment, all criteria marked with (\*) must be given a rating<sup>76</sup>)

  - 4.1 Project Design/Formulation
    - Analysis of Results Framework: project logic and strategy, indicators
    - Assumptions and Risks
    - Lessons from other relevant projects (e.g. same focal area) incorporated into project design

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<sup>76</sup> See ToR Annex F for rating scales.

- Planned stakeholder participation
  - Linkages between project and other interventions within the sector
- 4.1 Project Implementation
- Adaptive management (changes to the project design and project outputs during implementation)
  - Actual stakeholder participation and partnership arrangements
  - Project Finance and Co-finance
  - Monitoring & Evaluation: design at entry (\*), implementation (\*), and overall assessment of M&E (\*)
  - UNDP implementation/oversight (\*) and Implementing Partner execution (\*), overall project implementation/execution (\*), coordination, and operational issues
- 4.2 Project Results
- Progress towards objective and expected outcomes (\*)
  - Relevance (\*)
  - Effectiveness (\*)
  - Efficiency (\*)
  - Overall Outcome (\*)
  - Country ownership
  - Gender
  - Other Cross-cutting Issues
  - Social and Environmental Standards
  - Sustainability: financial (\*), socio-economic (\*), institutional framework and governance (\*), environmental (\*), and overall likelihood (\*)
  - Country Ownership
  - Gender equality and women's empowerment
  - Cross-cutting Issues
  - GEF Additionality
  - Catalytic Role / Replication Effect
  - Progress to Impact
5. Main Findings, Conclusions, Recommendations & Lessons
- Main Findings
  - Conclusions
  - Recommendations
  - Lessons Learned
6. Annexes
- TE ToR (excluding ToR annexes)
  - TE Mission itinerary
  - List of persons interviewed
  - List of documents reviewed
  - Summary of field visits
  - Evaluation Question Matrix (evaluation criteria with key questions, indicators, sources of data, and methodology)
  - Questionnaire used and summary of results
  - Co-financing tables (if not include in body of report)
  - TE Rating scales
  - Signed Evaluation Consultant Agreement form

- Signed UNEG Code of Conduct form
- Signed TE Report Clearance form
- *Annexed in a separate file:* TE Audit Trail
- *Annexed in a separate file:* relevant terminal GEF/LDCF/SCCF Core Indicators or Tracking Tools, as applicable

## ToR Annex D: Evaluation Criteria Matrix template

<b>Evaluative Criteria Questions</b>	<b>Indicators</b>	<b>Sources</b>	<b>Methodology</b>
<b>Relevance: How does the project relate to the main objectives of the GEF Focal area, and to the environment and development priorities at the local, regional and national level?</b>			
<i>(include evaluative questions)</i>	<i>(i.e. relationships established, level of coherence between project design and implementation approach, specific activities conducted, quality of risk mitigation strategies, etc.)</i>	<i>(i.e. project documentation, national policies or strategies, websites, project staff, project partners, data collected throughout the TE mission, etc.)</i>	<i>(i.e. document analysis, data analysis, interviews with project staff, interviews with stakeholders, etc.)</i>
<b>Effectiveness: To what extent have the expected outcomes and objectives of the project been achieved?</b>			
<b>Efficiency: Was the project implemented efficiently, in line with international and national norms and standards?</b>			
<b>Sustainability: To what extent are there financial, institutional, socio-political, and/or environmental risks to sustaining long-term project results?</b>			
<b>Gender equality and women's empowerment: How did the project contribute to gender equality and women's empowerment?</b>			
<b>Impact: Are there indications that the project has contributed to, or enabled progress toward reduced environmental stress and/or improved ecological status?</b>			
<i>(Expand the table to include questions for all criteria being assessed: Monitoring &amp; Evaluation, UNDP oversight/implementation, Implementing Partner Execution, cross-cutting issues, etc.)</i>			



**ToR Annex F: TE Rating Scales**

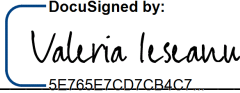
Ratings for Outcomes, Effectiveness, Efficiency, M&E, Implementation/Oversight, Execution, Relevance	Sustainability ratings:
<p>6 = Highly Satisfactory (HS): exceeds expectations and/or no shortcomings</p> <p>5 = Satisfactory (S): meets expectations and/or no or minor shortcomings</p> <p>4 = Moderately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

**ToR Annex G: TE Report Clearance Form**

**Terminal Evaluation Report for** *(Moldova Sustainable Green Cities – Catalyzing Investment in Sustainable Green Cities in the Republic of Moldova Using a Holistic Integrated Urban Planning Approach & UNDP PIMS ID 5492)* **Reviewed and Cleared By:**

**Commissioning Unit (M&E Focal Point)**

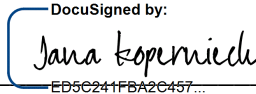
Name: Valeria Ieseanu

Signature: 5E765E7CD7CB4C7

Date: 09-Nov-2023

**Regional Technical Advisor (Nature, Climate and Energy)**

Name: Jana Koperniech

Signature: ED5C241FBA2C457...

Date: 09-Nov-2023

**ToR Annex H: TE Audit Trail**

*The following is a template for the TE Team to show how the received comments on the draft TE report have (or have not) been incorporated into the final TE report. This Audit Trail should be listed as an annex in the final TE report but not attached to the report file.*

**To the comments received on (date) from the Terminal Evaluation of (project name) (UNDP Project PIMS #)**

The following comments were provided to the draft TE report; they are referenced by institution/organization (do not include the commentator's name) and track change comment number (“#” column):

Institution/ Organization	#	Para No./ comment location	Comment/Feedback on the draft TE report	TE team response and actions taken

## Annex B. TE mission itinerary

31 July - 4 August 2023 (Meetings in Moldova)

Nr.	Time	Stakeholder to meet	Location	Participants
<b>Monday, 31 July</b>				
1	<b>8.30 - 9.00</b>	TE Team preparation meeting	Green Cities Office, Chişinău, Banulescu Bodoni 14/1 street, 3 floor	<b>Silvija Nora Kalnins</b> , International Evaluator <b>Serghei Ostaf</b> , National Evaluator (further TE team)
2	<b>9.00 - 10.20</b>	Meeting with the Project Team		<b>TE team</b> <b>Gheorghe Riciu</b> , Project Manager
3	<b>10.30 - 11.00</b>	Alexandru Rotaru, SGC Project Manager 2017 - 2022		<b>TE team</b> <b>Gheorghe Riciu</b> , Project Manager <b>Alexandru Rotaru</b> , Former Project Manager
4	<b>11.10 – 13.20</b>	Green City Lab Moldova	Green Cities Office	<b>TE team</b> <b>Veronica Herta</b> , General Director GCL <b>Irina Apostol</b> , EMIS Developer <b>Maxim Moroga</b> , Project Manager (energy efficiency, waste) <b>Sergiu Corin</b> , Project Manager (social, photovoltaics), <b>Vitalie Secrieru</b> , coordinator ODA/SME, <b>Ana Svetova</b> , Finance, Administrative Assistant
Lunch break				
5	<b>14.00 - 15.30</b>	meeting with the NGOs representatives and experts	Green Cities Office, Chişinău, Banulescu Bodoni 14/1 street, 4 floor	<b>TE team</b> <b>Evghenii Camenscic</b> , Climate and Sustainable Energy Expert , (EMIS consultant) <b>Tatiana Mihailova</b> , Automobile Club of Moldova/ProtectMD Foundation <b>Irina Plis</b> , NGO Alliance for Energy Efficiency
6	<b>15.30 - 16.10</b>	Meeting with UNDP Cluster Lead	Green Cities Office, Chişinău, Banulescu Bodoni 14/1	<b>TE team</b> <b>Inga Podoroghin</b> , Cluster Lead/Climate Change, Environment and Energy <b>Gheorghe Riciu</b> , Project Manager
7	<b>16.00 - 16.40</b>	MoldControl - partner organization for Reverse Vending Machine project	Metro Botanica, 61 Dacia blv	<b>TE team</b> <b>Iulian Gamurean</b> , Director of MoldControl
<b>Tuesday, 1 August</b>				
8	<b>8.30-9.20</b>	Meeting with Project Manager	Green Cities Office	<b>TE team</b>

				<b>Gheorghe Riciu</b> , Project Manager
9	<b>9.30 - 10.30</b>	Victor Parlicov, Minister of Energy	Ministry of Energy, Government Building, 1 Stefan cel Mare blv	<b>TE team</b> <b>Victor Parlicov</b> , Minister of Energy
10	<b>10.30 - 11.30</b>	Ilie Ceban, Deputy Mayor Chişinău City Hall	Chişinău City Hall Building, 83 Stefan cel Mare blv	<b>TE team</b> <b>Ilie Ceban</b> , Deputy Mayor of Chisinau
11	<b>12.00 – 13.10</b>	EV Point - chargers for electric vehicles project	EV Point Office, Chisinau, 21 Petricani street	<b>TE team</b> <b>Oleg Stefaniuc</b> , Director of EV Point <b>There was 1 more EV Point representative present</b> Interpreter
12	<b>14.00 - 14.45</b>	Ministry of Environment/ GEF Operational Focal Point	Ministry of Environment Building, 162 Stefan cel Mare, 10 floor. office 1007A	<b>TE team</b> <b>Nelea Turchin</b> , Main Consultant, acting GEF focal point <b>Galina Noroceca</b> , Main Consultant, member of the SGC project Board <b>There was 1 more MoENV representative present</b> Interpreter
13	<b>15.00 - 15.40</b>	National Agency for Research and Development	National Agency for Research and Development, Stefan cel Mare si Sfint Boulevard, 180, 10 floor, 1001 office	<b>TE team</b> <b>Vadim Iatchevici</b> , acting director of National Agency for Research and Development
14	<b>16.00 - 17.00</b>	Termoelectrica - demo project on building energy efficiency	Termoelectrica Office and Calea Iesilor st buildings with modernized heating system	<b>TE team</b> <b>Vitalie Mita</b> , Development Director of Termoelectrica <b>Svetlana Iacub Solcaci</b> , President of the HomeOwners Association Meetings with residents of the building Interpreter
15	<b>17.30 - 18.00</b>	Debriefing/briefing after the first two days of the mission	GC Office	<b>TE team</b> <b>Gheorghe Riciu</b> , Project Manager
<b>Wednesday, 2 August</b>				
	<b>8.00</b>	Departure to Balti		<b>TE team</b> Interpreter
16	<b>10.00 - 11.00</b>	CET-Nord - demo project on building energy efficiency	CET-Nord Office, Bălți, 180 Stefan cel Mare	<b>TE team</b> <b>Marian Brinza</b> , acting General Director of CET-Nord <b>Igor Savin</b> , Technical Director of CET-Nord <b>Rada Golovin</b> , representative of CET-Nord Interpreter
17	<b>11.00 - 12.30</b>	Visit at one of multi-storey building with a renovated heating system	Bălți, residential buildings with	<b>TE team</b> <b>Rada Golovin</b> , representative of CET-

			modernized heating system	Nord <b>Tatiana Pleșca</b> , President of HomeOwners Association Meetings with Residents Interpreter
Lunch and departure to Singerei				
18	14.00 - 15.40	Singerei District Council and field visit to Singerei Hospital - photovoltaic system	Sîngerei, Sîngerei, District Council, 111 Independentei str  District hospital, 51 Testemiteanu str	<b>TE team</b> <b>Ivan Orlovski</b> , deputy president of Singerei District Council <b>Lilia Cuceș</b> , project manager, Singerei District Council <b>Vitalie Tabarcea</b> , Director of Singerei District Hospital <b>Iurie Megega</b> , Technical director of Singerei District Hospital There were 3 more representatives of the District Council present Interpreter
	16.00	Departure to Chișinău		
<b>Thursday, 3 August</b>				
	8.00	Departure to Sculeni, Ungheni		
19	10.00 - 11.30	Sculeni Placement Center and meeting with Municipal authorities (Social Protection Department)	Sculeni, Ungheni, Elderly Placement center, 16 Alexandru cel Bun str.	<b>TE team</b> <b>Rodica Hariuc</b> , Deputy director of Sculeni Placement Center <b>Constantin Potlog</b> , Deputy Head of General Direction of Social Protection and Family, Ungheni Municipal Authorities Interpreter
	11.30 - 13.00	Lunch and departure for Chișinău		
20	15.30 - 16.00	Meeting with UNDP RR	UNDP CO	<b>TE team</b> <b>Daniela Gasparikova</b> , Resident Representative <b>Inga Podoroghin</b> , Cluster Lead/Climate Change, Environment and Energy <b>Gheorghe Riciu</b> , Project Manager
21	16.40- 18.00	Meeting with UNDP – project team	UNDP CO	<b>TE team</b> <b>Inga Podoroghin</b> , Cluster Lead/Climate Change, Environment and Energy <b>Gheorghe Riciu</b> , Project Manager
<b>Friday, 4 August</b>				
22	8.30 – 9.30	Meeting with GCL Director and Project Manager		<b>TE team</b> <b>Gheorghe Riciu</b> , Project Manager <b>Veronica Herta</b> , GCL director
23	9.30 -	meeting with the journalists	Green City Lab Office	<b>TE team</b>

	<b>10.30</b>			<b>Tatiana Chetrari</b> , TVR <b>Ilie Toma</b> , PiațaAuto.md Interpreter
24	<b>11.00 - 12.30</b>	visit at Gradina Botanica - nursery for producing saplings for the green spaces in localities project	Gradina Botanica, 14/1 Gradina Botanica str., Chisinau	<b>TE team</b> <b>Ion Rosca</b> , director of Gradina Botanica Interpreter
25	<b>13.00 - 15.00</b>	Working lunch (initial findings presentation and discussion)		<b>TE team</b> <b>Gheorghe Riciu</b> , Project Manager <b>Inga Podoroghin</b> , Cluster Lead/Climate Change, Environment and Energy <b>Silvia Pana-Carp</b> , Programme Analyst/Climate Change, Environment and Energy
26	<b>15.00 - 16.00</b>	Follow-up meeting with Project Manager (remaining missing documents, clarifications, etc.)	Green City Project Office	<b>TE team</b> <b>Gheorghe Riciu</b> , Project Manager

## Online meetings after the TE mission

<b>Nr.</b>	<b>Date and Time</b>	<b>Stakeholder to meet</b>	<b>Participants</b>
27	<b>22 August 2023, 11.30</b>	Meeting with Regional Technical Adviser	<b>TE team</b> <b>Bahtiyar Kurt</b> , Regional Technical Specialist for Climate Change Mitigation and Energy
28	<b>23 August 2023, 10.30</b>	Meeting with FTCP monitoring specialist	<b>TE team</b> <b>Marina Miron</b> , National consultant for Fast Track Challenge Programme monitoring
29	<b>7 September 2023, 16.00</b>	Meeting with Green City Lab founders	<b>TE team</b> <b>Jose Luis Gomez Pascual</b> , Country manager, ICS Premier Energy Distribution SA <b>Irina Balica</b> , director, ABS SRL <b>Andrei Mereacre</b> , Administrator, AM-Sisteme SRL

## Annex C. List of persons interviewed

1. **Irina Apostol**, GCL, EMIS Developer
2. **Irina Balica**, director, ABS SRL, GCL Founder
3. **Simion Berzoi**, Energy Efficiency Expert
4. **Marian Brinza**, acting General Director of CET-Nord
5. **Evghenii Camenscic**, Climate and Sustainable Energy Expert
6. **Ilie Ceban**, Deputy Mayor of Chisinau
7. **Tatiana Chetrari**, TVR (media representative)
8. **Sergiu Corin**, GCL, Project Manager
9. **Adrian Crasnobaev**, Administrative Director of CET-Nord
10. **Lilia Cucos**, project manager, Singerei District Council
11. **Iulian Gamurean**, Director of MoldControl
12. **Daniela Gasparikova**, UNDP Moldova Resident Representative
13. **Rada Golovin**, representative of CET-Nord
14. **Rodica Hariuc**, Deputy director of Sculeni Placement Center
15. **Veronica Herta**, GCL director
16. **Vadim Iatchevici**, acting director of National Agency for Research and Development
17. **Bahtiyar Kurt**, UNDP Regional Technical Specialist for Climate Change Mitigation and Energy
18. **Nicolae Leuca**, Director of Sculeni Placement Center
19. **Virginia Mandalac**, Automobile Club of Moldova/ProtectMD Foundation
20. **Iurie Megega**, Technical director of Singerei District Hospital
21. **Andrei Mereacre**, Administrator, AM-Sisteme SRL, GCL Founder
22. **Marina Miron**, National consultant for Fast Track Challenge Programme monitoring
23. **Vitalie Mita**, Development Director of Termoelectrica
24. **Maxim Moroga**, GCL, Project Manager
25. **Galina Noroce**, Main Consultant, member of the SGC project Board
26. **Ivan Orlovski**, deputy president of Singerei District Council
27. **Silvia Pana-Carp**, UNDP Moldova, Programme Analyst/Climate Change, Environment and Energy
28. **Victor Parlicov**, Minister of Energy
29. **Jose Luis Gomez Pascual**, Country manager, ICS Premier Energy Distribution SA, GCL Founder
30. **Tatiana Pleşca**, President of HomeOwners Association
31. **Inga Podoroghin**, UNDP Moldova, Cluster Lead/Climate Change, Environment and Energy
32. **Gheorghe Riciu**, UNDP/GEF Sustainable Green Cities Project Manager
33. **Ion Rosca**, director of Gradina Botanica
34. **Alexandru Rotaru**, former SGC Project Manager
35. **Igor Savin**, Technical Director of CET-Nord
36. **Svetlana Iacub Solcaci**, President of the HomeOwners Association
37. **Oleg Stefaniuc**, Director of EV Point
38. **Ana Svetova**, GCL, Assistant
39. **Vitalie Tabarcea**, Director of Singerei District Hospital
40. **Ilie Toma**, PiațaAuto.md (electronic media representative)
41. **Nelea Turchin**, Main Consultant, acting GEF focal point



## Annex D. List of documents reviewed

\* denotes documents included in the initial list of information package in the evaluation TORs that were not submitted to the evaluators over the course of the evaluation.

#	Item (all electronic versions)
1	Project Identification Form (PIF)
2	UNDP Initiation Plan
3	Final UNDP-GEF Project Document with all annexes
4	CEO Endorsement Request
5	UNDP Social and Environmental Screening Procedure (SESP) and associated management plans (if any)
6	Inception Workshop Report
7	Mid-Term Review report and management response to MTR recommendations
8	All Project Implementation Reports (PIRs)
9	Progress reports (quarterly, semi-annual or annual, with associated workplans and financial reports)
10*	Oversight mission reports
11	Minutes of Project Board Meetings and of other meetings (i.e. Project Appraisal Committee meetings)
12	GEF Tracking Tools (from CEO Endorsement, midterm and terminal stages)
13	GEF/LDCF/SCCF Core Indicators (from PIF, CEO Endorsement, midterm and terminal stages); for GEF-6 and GEF-7 projects only
14	Financial data, including actual expenditures by project outcome, including management costs, and including documentation of any significant budget revisions
15	Co-financing data with expected and actual contributions broken down by type of co-financing, source, and whether the contribution is considered as investment mobilized or recurring expenditures
*	Audit reports <i>/it was ascertained there had been no audit/</i>
16	Electronic copies of project outputs (booklets, manuals, technical reports, articles, etc.)
17	Sample of project communications materials
*	Summary list of formal meetings, workshops, etc. held with date, location, topic, and number of participants
*	Relevant socio-economic monitoring data, such as average incomes/employment levels of stakeholders in the target area, change in revenue related to project activities
18	List of contracts and procurement items over ~US\$5,000 (i.e. organizations or companies contracted for project outputs, etc., except in cases of confidential information)
19	List of related projects/initiatives contributing to project objectives approved/started after GEF project approval (i.e. any leveraged or “catalytic” results) <i>/provided in the draft report stage after requested by the TE team/</i>
*	Data on relevant project website activity – e.g. number of unique visitors per month, number of page views, etc. over relevant time period, if available
20	UNDP Country Programme Document (CPD)
*	List/map of project sites, highlighting suggested visits
*	List and contact details for project staff, key project stakeholders, including Project Board members, RTA, Project Team members, and other partners to be consulted
23	Project deliverables that provide documentary evidence of achievement towards project outcomes

24	Green City Lab Moldova founding documents
25	Agreements of UNDP with founding members of GCL
26	Reports of GCL to UNDP
27	LVGs between UNDP and GCL
28	GCL Business Plan
29	Service Contracts and Financial Agreements of GCL with other institutions and donors
30	AWPs of SGC project
31	SGC project extension request and approval
32	Fast Track Challenge Programme documentation, including application guide, project financed, progress reports
33	Signed Agreements of SGC project with stakeholders
34	MRV savings reports
35	Overall Budget report and CDRs
36	Communication Strategies of SGC project
37	Demo projects documentation, including the evaluation committees, calls of interest documents, feasibility studies if applied, reports, suppliers' selection etc.
38	Demo projects set-up brief
39	Information on events organized within SGC project

## Annex E: Evaluation Matrix

Evaluative Criteria Questions	Indicators	Sources	Methodology
<b>Relevance: How does the project relate to the main objectives of the GEF focal area, and to the environment and development priorities at the local, regional and national levels?</b>			
<ul style="list-style-type: none"> <li>Did the project's objectives the GEF focal areas objectives?</li> </ul>	Alignment to GEF focal area objectives	Project document	Review
<ul style="list-style-type: none"> <li>Did the project's objectives fit within: national priorities priorities of the local government and local communities?</li> </ul>	Degree of alignment with national policies in energy efficiency and other areas. Inclusion of issues relevant to local municipalities (municipal planning documents, Covenant of Mayors agreement). Address issues important to local community. Address issues on climate change and mitigation, cross-cutting issues relevant to the intervention	Government & municipal policies and planning documents	Document review and interviews
<ul style="list-style-type: none"> <li>Have the objectives of the intervention and its design remained appropriate over the course of implementation?</li> </ul>	Adaptation to any changes in policy, local priorities. Appropriate responsiveness of project to political, legal, economic, institutional and other changes in the country		Document review and interviews
<ul style="list-style-type: none"> <li>Did the project contribute the achievement of the SDGs?</li> </ul>	Alignment of project to SDGs	Project document, national SDG targets for Moldova	Document review
<ul style="list-style-type: none"> <li>How does the project fit with other projects in energy efficiency/ environment in Moldova? With other donor support?</li> </ul>	Avoidance of duplication, strategic intervention among other donor support	Project documents in the field, UNSDCF	Document review and interviews
<b>Effectiveness: To what extent have the expected outcomes and objectives of the project been achieved?</b>			
<ul style="list-style-type: none"> <li>To what extent have the project Objective and Outcomes have been achieved? In what timeframe?</li> </ul>	Adherence of project plan	<ul style="list-style-type: none"> <li>Project indicators, RRFs, Annual report</li> </ul>	
<ul style="list-style-type: none"> <li>How did stakeholder involvement and public awareness contribute to the achievement of project objective and outcomes?</li> </ul>	Varied methods of stakeholder engagement, use of investments, involvement of stakeholders, expressed interest from communities	<ul style="list-style-type: none"> <li>Annual reports, Project indicators, interviews</li> </ul>	
<ul style="list-style-type: none"> <li>Which were the key factors that contributed to project success/underachievement; can positive key factors be replicated in other cases, or could negative factors have been anticipated and minimized?</li> </ul>			

Evaluative Criteria Questions	Indicators	Sources	Methodology
<ul style="list-style-type: none"> <li>How has risk and risk mitigation been managed over course of project?</li> </ul>	Risk management plan and implementation	PIR, project team documents	
<ul style="list-style-type: none"> <li>Has adaptive management been applied to ensure effectiveness?</li> </ul>		Project team documents	
<b>Efficiency: How economically were the project resources and inputs converted into results?</b>			
<ul style="list-style-type: none"> <li>Was the project cost-effective? Since implementation was delayed, did that affect the efficient and economic use of financial and human resources? Were expenditures in line with international standards and norms? Was co-financing received at the level anticipated in the project document?</li> </ul>	<ul style="list-style-type: none"> <li>Project expenditures for each of the outcomes correspond with rates agreed in the project document; project management costs did not exceed acceptable levels; project audits revealed no questionable costs and/or violation of procurement, financial and HR administration rules</li> </ul>	<ul style="list-style-type: none"> <li>Project financial statements, co-financing reports, PIRs, audit reports</li> </ul>	
<ul style="list-style-type: none"> <li>Was the project management effective? Were there any particular challenges with the management process? Did the project Steering Committee provide the anticipated input and support to project management? Were risks assessed in time and adequately dealt with? Was the level of communication and support from the implementing agency adequate and appropriate?</li> </ul>	<ul style="list-style-type: none"> <li>Project management arrangements contributed/otherwise to attainment of project objective and outcomes, and were implemented according to the established principles and procedures</li> </ul>	<ul style="list-style-type: none"> <li>Interviews with key project stakeholders, incl. National Implementing Agency and UNDP; project risk log, project Steering Committee minutes</li> </ul>	
<ul style="list-style-type: none"> <li>How efficient are partnership arrangements for the project?</li> </ul>	<ul style="list-style-type: none"> <li>Terms of the cooperation agreements, sustainability, investment aspect, etc.</li> </ul>	<ul style="list-style-type: none"> <li>Cooperation agreements</li> </ul>	
<b>Sustainability: To what extent are there financial, institutional, social-political, and/or environmental risks to sustaining long-term project results?</b>			
<ul style="list-style-type: none"> <li>What is the likelihood that any required financial resources will be available to sustain the project results once the funding is over?</li> </ul>	<ul style="list-style-type: none"> <li>Major project endeavors (such as Green City Lab, demonstration projects, institutional arrangements, infrastructure support) will get financial support and be maintained</li> </ul>	<ul style="list-style-type: none"> <li>Interviews with stakeholders, project reports, financial data, demo project agreements</li> </ul>	
<ul style="list-style-type: none"> <li>What is the likelihood that institutional and technical achievements, legal framework, policies and governance structures and processes will allow for the project results to be sustained? Are there key institutional and governance risks to sustainability?</li> </ul>	Major institutional changes, technical solutions, legal framework amendments get strong support at policy and decision-making levels	Interviews with stakeholders, project reports,	

Evaluative Criteria Questions	Indicators	Sources	Methodology
<ul style="list-style-type: none"> <li>Do stakeholders have or are likely to achieve adequate level of 'ownership' of results, interest in ensuring that project benefits are maintained? Do they have the relevant capacities?</li> </ul>	Appropriate capacities of stakeholders, Ownership established		
<ul style="list-style-type: none"> <li>To what extent are project results resilient to socio-economic factors? On issues relating to institutional frameworks and governance?</li> </ul>	Key policies in place to support sustainability. Project successes transferred to partners.		
<ul style="list-style-type: none"> <li>Are there any environmental risks that can undermine the post-project impact and global environment benefits?</li> </ul>	Identified threats to sustainability of results.		
<ul style="list-style-type: none"> <li>What is the likelihood that the technical achievements, investments in capacity development, etc introduced through the project will be sustainable in the target communities?</li> </ul>	Establishment of Green City Lab in a sustainable manner. Uptake and transfer of knowledge from existing demos		
<b>Impact: Are there indications that the project has contributed to, or enabled progress toward, reduced environmental stress and/or improved ecological status?</b>			
<ul style="list-style-type: none"> <li>Did the project achieve its planned impacts? Why or why not?</li> </ul>	Contributions to change		
<ul style="list-style-type: none"> <li>Are there (and what are) secondary impacts achieved by the project, especially as related to local communities?</li> </ul>			
<ul style="list-style-type: none"> <li>Which were the key lessons learned in course of project implementation? Will other projects, areas of support gain from the project results/outcomes?</li> </ul>	Knowledge captured and transferred to		
<ul style="list-style-type: none"> <li>Are there (and what are) additional impact on cross-cutting issues?</li> </ul>	Identified cross-cutting issues in demonstration project implementation Preference made to funding of projects with cross-cutting elements. Contributions to change.	Review of demonstration project documents. Selection methods for financed projects.	
<b>Gender equality and women's empowerment: How did the project contribute?</b>			
<ul style="list-style-type: none"> <li>How was gender mainstreaming facilitated? How were women's groups consulted and engaged?</li> </ul>			
<ul style="list-style-type: none"> <li>Extent to which the project contributed gender equality, the empowerment of women and a human rights-based approach?</li> </ul>			
<ul style="list-style-type: none"> <li>Degree to which project contributed to the relevant human rights under</li> </ul>			

Evaluative Criteria Questions	Indicators	Sources	Methodology
the nine-core international human rights treaties, including CEDAW.			
<b>Other cross-cutting issues: How did the project contribute to capacity development and social inclusion?</b>			
<ul style="list-style-type: none"> <li>How was capacity development monitored and ensured?</li> </ul>	Knowledge captured and applied in demonstration projects. Capacity of Green Labs ensured. Sustainability of on-the-job trainings in demonstration sites and involved municipalities secured.	Data from trainings, post-training evaluation of using skills	
<ul style="list-style-type: none"> <li>Extent to which stakeholders have been actively engaged in project activities, decision-making processes, and knowledge sharing.</li> </ul>			
<ul style="list-style-type: none"> <li>Extent to which training programs, workshops, and knowledge-sharing effectively targeted the identified capacity needs of stakeholders</li> </ul>			
<ul style="list-style-type: none"> <li>Extent to which the SGC project has promoted social inclusion and addressed inequalities in access to green urban services and resources</li> </ul>			
<ul style="list-style-type: none"> <li>Effectiveness of the project's interventions in building the institutional capacity of government agencies and other relevant institutions to implement and sustain green urban development practices</li> </ul>			

## Annex E2: Interview Questions

### GEF Regional technical advisor

- Can you explain what the role has been of the GEF RTA in project implementation?
- Considering the challenges in implementation, was there any different approach with this Project? Additional support or guidance provided to UNDP Moldova and the project team?
- Are there any lessons learned from this project that can be identified from the RTA side?
- Can you provide information on other GEF projects where institutions have been established within the project? What has been the role of UNDP? Approach to secure sustainability?
- Looking back, is there anything you believe could have been changed in the project implementation/approach?
- What support/suggestions (if any) does the RTA provide UNDP offices and teams on integrating gender and human rights issues into GEF projects?
- Any suggestions in terms of establishing sustainability in the remaining time of the project?
- What is your opinion on GCL generating income via loans to customers in energy projects? What type of service generation fees are presumed in the project prodoc?
- What is the transformative role GCL has for the sectors it operates? Positive examples based on MTE?

### Fast Track Challenge monitoring coordinator

- Describe the process of how you prepare the plan for monitoring of implementation of the FTC programme projects?
- Describe the process of how you prepare the plan for monitoring the results after implementation?
- Can you give some examples for indicators of success for the projects which will be useful for replication?
- How did you integrate gender aspects into the evaluation and monitoring of the projects? give examples
- of the FTC programme projects implemented, what is your expert assessment? how many (%? number?) would be fruitful to replicate in other parts of Chişinău? in other parts of Moldova? in other countries?

### GCL Board members / founders

- What is your overall view of the GCL and how it functions?
- What, in your opinion is the most important role of the GCL?
- How do you see your role and a founding member and Board member? Do you think it will change after the UNDP/GEF closure. If yes, how?
- Which do you think are the most important results of the Project which is the most useful for the GCL's further work?
- What do you feel are the important elements of securing the sustainability of the results which have been achieved during the Project?
- Do you plan on continuing your role as a founding member? Do you think that there is a need to strengthen the Board with additional members? Do you have any suggestions?
- Are there any changes you would like to see in the functioning of the GCL and/or the Board when UNDP leaves the Board?

## Annex F: Results Framework from Project Document

<b>This project will contribute to the following Sustainable Development Goal (s):</b> SDG 13: Take urgent action to combat climate change and its impacts, SDG 11: Make cities and human settlements inclusive, safe, resilient and sustainable					
<b>This project will contribute to the following country outcome included in the UNDAF/Country Programme Document:</b> Outcome 3.2 - National policies and strengthened capacities enable climate and disaster resilient, low emission economic development and sustainable consumption. <b>Outcome indicator:</b> Share of renewable energy in the gross domestic consumption; <b>Baseline:</b> 5%					
<b>This project will be linked to the following output of the UNDP Strategic Plan:</b>					
Output 1.3: Solutions developed at national and sub-national levels for sustainable management of natural resources, ecosystem services, chemicals and waste.					
<b>Output 1.4: Scaled up action on climate change adaptation and mitigation cross sectors which is funded and implemented.</b>					
Output 1.5: Inclusive and sustainable solutions adopted to achieve increased energy efficiency and universal modern energy access (especially off-grid sources of renewable energy)					
Output 2.5: Legal and regulatory frameworks, policies and institutions enabled to ensure the conservation, sustainable use, and access and benefit sharing of natural resources, biodiversity and ecosystems, in line with international conventions and national legislation.					
	<b>Objective and Outcome Indicators</b>	<b>Baseline<sup>77</sup></b>	<b>Mid-term Target<sup>78</sup></b>	<b>End of Project Target</b>	<b>Assumptions<sup>79</sup></b>
<b>Project Objective:</b> To catalyze investments in low carbon green urban development by an integrated urban planning approach and by encouraging innovation, participatory planning and partnerships with a variety of public and private sector entities.	<i>Mandatory Indicator 1:</i> Extent to which climate finance is being accessed (IRRF 1.4.1 a)	0	At least USD 2 million leveraged for investments directly initiated or supported by the GCL	At least USD 10 million leveraged for investments directly initiated or supported by the GCL	The projects initiated by the GCL meet the criteria of the targeted financiers
	<i>Mandatory indicator 2:</i> Number of direct project beneficiaries with gender disaggregated data.	0	5,000 people, from whom not more than 60% for the same gender	20,000 people, from whom not more than 60% for the same gender	The project MRV mechanism is collecting also gender specific data
	<i>Indicator 3:</i> Direct GHG emission reduction impact of the project	0	20 ktons of CO <sub>2eq</sub> calculated over a 20 year lifetime of the investment	200 ktons of CO <sub>2eq</sub> calculated over 20 year lifetime of the investment	Successfully completed pilot/demo projects with adequate MRV in place
<b>Component/Outcome<sup>80</sup> 1:</b> Fully operational Green City Lab recognized by the key stakeholders as the leading innovation, knowledge management and networking platform which is profitable and a source of expertise for catalyzing sustainable	<i>Indicator 4:</i> Status of the GCL and the specific outputs under Outcome 1 to support its operations	0	Business Plan for the GCL is finalized and agreed and implemented.  The GCL established as a self- standing public or semi-public institution (prior to the mid-term review) with a shareholders agreement, articles of association, a Board, and an Executive Director appointed by	The GCL established as a self- standing public or semi-public institution with all the outputs of the attached work plan under Outcome 1 completed. The GCL must be able to continue operations and to grow as it has alternative sources of revenue outside of the project and it should have at least 5 clients, each generating	The required co-financing and other contributions for the GCL establishment and operationalization are materializing.  Additional clients (at least 5) and fees (at least \$200,000 per annum) are secured and revenue is generated.  There are at least 7 GCL staff who do not need to be laid off due to the project closing as the GCL will have other clients and

<sup>77</sup> Baseline, mid-term and end of project target levels must be expressed in the same neutral unit of analysis as the corresponding indicator. Baseline is the current/original status or condition and need to be quantified. The baseline must be established before the project document is submitted to the GEF for final approval. The baseline values will be used to measure the success of the project through implementation monitoring and evaluation.

<sup>78</sup> Target is the change in the baseline value that will be achieved by the mid-term review and then again by the terminal evaluation.

<sup>79</sup> Risks must be outlined in the Feasibility section of this project document.

<sup>80</sup> Outcomes are short to medium term results that the project makes a contribution towards, and that are designed to help achieve the longer term objective. Achievement of outcomes will be influenced both by project outputs and additional factors that may be outside the direct control of the project.



low carbon green city development in Moldova with secured funding to continue its operation also after the UNDP/GEF project closure.			the Board, with all the outputs of its work plan under Outcome 1 (see Annex A) completed or being at an advance stage of implementation.	revenues of \$40,000 per annum or more meaning that the GCL should have revenues of at least \$200,000 per annum by the end of the project.	fees to continue operating.
	<i>Indicator 5:</i> Number of partnerships for green city development established in the frame of jointly implemented and/or developed projects and measures with gender disaggregated data, as applicable.	0	At least 1 formal co-operation agreements in the frame of jointly developed and/or implemented projects or other initiatives with at least one public or private entities, of which not more than 70% managed by the same gender.	At least 5 formal co-operation agreements in the frame of jointly developed and/or implemented projects or other initiatives with at least 10 public or private entities, of which not more than 70% managed by the same gender.	It is assumed that the GCL is operating before the mid-term review with an Executive Director appointed and is able to enter into the first formal cooperation agreement prior to the mid-term review.
	<i>Indicator 6:</i> Value of signed contracts / agreements not funded by GEF resources for covering the GCL operational costs	0	First non-GEF funded contract or agreement signed by the GCL by the time of the mid-term review by which the GCL will offer a 'fee for services' contract to the client in return for design and implementation of green urban development strategies	At least 5 or more signed non-GEF funded contracts or agreements at the combined value of at least USD 500,000 to enable GCL to continue its financially sustainable operation after the end of the project.  The GCL shall have a target of annual revenues of \$200,000 per annum by the end of the project, not including fees that are earned from the project itself. This should be broken down into the GCL having at least 5 clients who pay at least \$40,000 USD per annum each.	The GCL shall aim to have signed contracts worth at least \$500,000 or more by the end of the project and to have annual revenues of at least \$200,000 per annum by the end of the project.  The GCL legal status must allow it to operate in a manner similarly to a not-for profit company or other similar modality that allows for the provision and marketing of its services for a fee to both the public and private sector as well as its participation in public and private sector procurement calls already during the implementation of the UNDP/GEF project.
<b>Component/ Outcome 2:</b> Successfully completed pilot/demonstration projects with related monitoring, reporting and verification of the results in the areas of: i) integrated and participatory urban land use and mobility planning; ii) residential building energy efficiency and renewable energy use; iii) low carbon mobility; and iv) resource efficient	<i>Indicator 7:</i> The extent, to which integrated and participatory planning methodologies are taken into use in updating the Chişinău General Urban Development Plan (PUG) and related zonal plans, including gender disaggregated data on the number stakeholders engaged into the process.	Although guideline for green urban planning has been developed with support of UNDP-GEF ESCO project, General Urban Development Plan for Chişinău is	The GCL team and the Chişinău Municipality working together for updating the PUG based on an integrated participatory approach with specific outputs completed on time, as outlined in the project work plan and having a balance participation of both male and female stakeholders without a single gender exceeding a share of 60%	At least one zonal plan finalized based on an integrated and participatory planning methodology suggested by the Green City Lab and having a balance participation of both male and female stakeholders without a single gender exceeding a share of 60%.	Formal co-operation agreement between the GCL and Chişinău municipality for the development of the PUG based on an integrated participatory approach completed with adequate details of implementation.

waste management.		outdated			
	<i>Indicator 8:</i> Status of the pilot/demo projects for each of the targeted subsectors	Baseline to be developed after selection of demonstration projects	The design and financing decisions completed for at least one pilot/demo project from each targeted subsector with a potential to collectively meet the direct GHG reduction target of the project	Completed construction of at least one pilot/demo project from each targeted subsector (i.e – at least 4 projects in total) with MRV data on the achieved GHG savings for at least one year operating period.	Agreements on the required institutional, implementation and co-financing arrangements
	<i>Indicator 9:</i> Number of projects supported by the “Fast Track Challenge Program” with monitored gender disaggregated data on project beneficiaries and their contribution to supporting gender equality.	NA	At least 3 projects with monitored, verified and reported data, as applicable, on the achieved GHG savings, of which at least 1 project having also a strong positive impact on supporting gender equality	At least 10 projects with monitored, verified and reported data, as applicable, on the achieved GHG savings, of which at least 3 projects having also a strong positive impact on supporting gender equality	The challenge program and prizes can be made attractive enough for the targeted participants to attract good quality proposals.
<b>Component/ Outcome 3:</b> Monitoring and Evaluation, knowledge management and replication of project results.	<i>Indicator 10:</i> 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.  Introduction of EMIS with open data access for selected public (and as applicable) residential buildings, PUCs and other agreed objects.	An established MRV system (including EMIS) with open data access and institutional arrangements and agreements in place to continue with data reporting also after the project on all the supported pilot projects and other selected GHG emission sources within the City.	Required co-operation agreements with project owners, Chişinău municipality and, as applicable, with Energy Efficiency Agency for the introduction of the project MRV system and EMIS with open data access in place.
	<i>Indicator 11:</i> Agreed knowledge management (KM) products and events delivered	0	The virtual Green City KM platform established  At least one international Green City KM event (workshop or seminar) organized	The Green City KM platform sustained after the project  A lessons learnt report finalized  An international end of the project workshop organized	
	<i>Indicator 12:</i> Number of EoIs received for replicating the project intervention strategy, specific technical solutions or business models for new projects and/or municipalities	0	0		At least one new municipality and 5 project proponents expressing interest to replicate one or more of the supported interventions.

**Annex G: Signed UNEG Code of Conduct forms****Evaluation Consultants Agreement Form**

To be signed by all consultants as individuals (not by or on behalf of a consultancy company) before a contract can be issued.

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

Name of Consultant: Silvija Nora Kalnins

Name of Consultancy Organisation (where relevant): \_\_\_\_\_

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

Signed at (place) on (date)

10-Jul-2023

Signature: \_\_\_\_\_

DocuSigned by:  
Silvija Nora Kalnins  
B7CFAF507E2C417...

**Annex G: Signed UNEG Code of Conduct forms****Evaluation Consultants Agreement Form**

To be signed by all consultants as individuals (not by or on behalf of a consultancy company) before a contract can be issued.

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

Name of Consultant: Serghei Ostaf

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 (place) on (date)

10 July 2023

Signature

DocuSigned by:  
Serghei Ostaf  
853D76CE403648A...