



6 REQUEST FOR PROJECT ENDORSEMENT/APPROVAL

PROJECT TYPE: Full-sized Project

TRUST FUND: GEF Trust Fund

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PART I: PROJECT INFORMATION

Project Title: Moldova Sustainable Green Cities – Catalyzing investment in sustainable green cities in the Republic of Moldova using a holistic integrated urban planning approach			
Country(ies):	Republic of Moldova	GEF Project ID: ¹	9042
GEF Agency(ies):	UNDP	GEF Agency Project ID:	5492
Other Executing Partner(s):	Ministry of Environment	Submission Date:	2 December 2016
		Resubmission Date:	24 May 2017
		Resubmission Date:	5 July 2017
GEF Focal Area (s):	Climate Change	Project Duration (Months)	60
Integrated Approach Pilot	IAP-Cities <input type="checkbox"/> IAP-Commodities <input type="checkbox"/> IAP-Food Security <input type="checkbox"/>	Corporate Program: SGP <input type="checkbox"/>	
Name of Parent Program	[if applicable]	Agency Fee (\$)	250,774

A. FOCAL AREA STRATEGY FRAMEWORK AND OTHER PROGRAM STRATEGIES²

Focal Area Objectives/Programs	Focal Area Outcomes	Trust Fund	(in \$)	
			GEF Project Financing	Co-financing
CCM-1 Program 1	Outcome A. Accelerated adoption of innovative technologies and management practices for GHG emission reduction and carbon sequestration	GEFTF	888,724	8,000,000
CCM-2 Program 3	Outcome C: Financial mechanisms to support GHG reductions are demonstrated and operationalized	GEFTF	1,751,002	31,930,000
Total project costs			2,639,726	39,930,000

B. PROJECT DESCRIPTION SUMMARY

Project Objective: 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.						
Project Components/Programs	Financing Type ³	Project Outcomes	Project Outputs	Trust Fund	(in \$)	
					GEF Project Financing	Confirmed Co-financing
Component 1: Fully operational Green City	TA	Fully operational Green City Lab (GCL) recognized by the key	The GCL established as a self-standing public or semi-public institution and all its services and outputs scheduled to be available	GEFTF	670,000	5,250,000

¹ Project ID number remains the same as the assigned PIF number.

² When completing Table A, refer to the excerpts on [GEF 6 Results Frameworks for GETF, LDCF and SCCF](#).

³ Financing type can be either investment or technical assistance.

Lab recognized by the key stakeholders as the leading innovation, knowledge management and networking platform 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.		stakeholders as the leading innovation, knowledge management and networking platform 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.	<p>or delivered by the end of the project achieved.</p> <p>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.</p> <p>Signed and ongoing non-GEF funded contracts or agreements at the combined value of at least USD 200,000 to enable the GCL to continue its financially sustainable operation after the end of the project</p>			
Componet 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	TA	New innovative technical and systemic solutions and business models contributing to climate smart urban development identified, tested and replicated.	At least one completed zonal plan based on an integrated and participatory planning methodology suggested by the Green City Lab	GEFTF	650,000	4,300,000
	Inv		<p>Completed construction of at least one pilot/demo project from each targeted subsector with MRV data on the achieved GHG savings for at least one year operating period.</p> <p>At least 10 completed projects supported by the Fast Track Challenge Program with monitored, verified and reported data on the achieved GHG savings</p>	GEFTF	1,000,000	30,000,000

efficient waste management.						
Component 3: Monitoring and Evaluation, knowledge management and replication of project results	TA	Knowledge management and M&E to facilitate learning, scaling up and replication of project results.	<p>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> <p>The Green City KM platform sustained after the project</p> <p>A lessons learnt report finalized</p> <p>At least two international knowledge management and information exchange workshops organized</p> <p>At least one new municipality and 5 project proponents expressing interest to replicate one or more of the supported interventions</p>	GEFTF	199,726	50,000
Subtotal					2,519,726	39,600,000
Project Management Cost (PMC) ⁴				GEFTF	120,000	330,000
Total project costs					2,639,726	39,930,000

⁴ For GEF Project Financing up to \$2 million, PMC could be up to 10% of the subtotal; above \$2 million, PMC could be up to 5% of the subtotal. PMC should be charged proportionately to focal areas based on focal area project financing amount in Table D below.

C. CONFIRMED SOURCES OF CO-FINANCING FOR THE PROJECT BY NAME AND BY TYPE

Please include evidence for co-financing for the project with this form.

Sources of Co-financing	Name of Co-financier	Type of Cofinancing	Amount (\$)
Beneficiaries	Chisinau Municipality	Grants	25,000,000
Beneficiaries	Chisinau Municipality	In-kind	500,000
Recipient Government	Ministry of Environment	Grants	13,600,000
Recipient Government	Ministry of Environment	In-kind	100,000
Others	Agency of Innovation and Technology Transfer (AITT)	Grants	500,000
GEF Agency	UNDP	Grants	80,000
GEF Agency	UNDP	In-kind	150,000
(select)		(select)	0
(select)		(select)	0
Total Co-financing			39,930,000

D. TRUST FUND RESOURCES REQUESTED BY AGENCY(IES), COUNTRY(IES) AND THE PROGRAMMING OF FUNDS

GEF Agency	Trust Fund	Country Name/Global	Focal Area	Programming of Funds	(in \$)		
					GEF Project Financing (a)	Agency Fee ^{a)} (b) ²	Total (c)=a+b
UNDP	GEF TF	Moldova	Climate Change	(select as applicable)	2,639,726	250,774	2,890,500
Total Grant Resources					2,639,726	250,774	2,890,500

a) Refer to the Fee Policy for GEF Partner Agencies

E. PROJECT'S TARGET CONTRIBUTIONS TO GLOBAL ENVIRONMENTAL BENEFITS⁵

Provide the expected project targets as appropriate.

Corporate Results	Replenishment Targets	Project Targets
4. Support to transformational shifts towards a low-emission and resilient development path	750 million tons of CO _{2e} mitigated (include both direct and indirect)	200000 metric tonnes (direct) and 2,600,000 (indirect) metric tons

F. DOES THE PROJECT INCLUDE A "NON-GRANT" INSTRUMENT? No

(If non-grant instruments are used, provide an indicative calendar of expected reflows to your Agency and to the GEF/LDCF/SCCF Trust Fund) in Annex D.

⁵ Update the applicable indicators provided at PIF stage. Progress in programming against these targets for the projects per the *Corporate Results Framework* in the GEF-6 Programming Directions, will be aggregated and reported during mid-term and at the conclusion of the replenishment period.
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PART II: PROJECT JUSTIFICATION

A. DESCRIBE ANY CHANGES IN ALIGNMENT WITH THE PROJECT DESIGN WITH THE ORIGINAL PIF⁶

A.1. *Project Description.* Elaborate on: 1) the global environmental and/or adaptation problems, root causes and barriers that need to be addressed; 2) the baseline scenario or any associated baseline projects, 3) the proposed alternative scenario, GEF focal area⁷ strategies, with a brief description of expected outcomes and components of the project, 4) [incremental/additional cost reasoning](#) and expected contributions from the baseline, the GEFTF, LDCF, SCCF, and [co-financing](#); 5) [global environmental benefits](#) (GEFTF) and/or [adaptation benefits](#) (LDCF/SCCF); and 6) innovativeness, sustainability and potential for scaling up.

The substance of the project has largely remained as elaborated in PIF, but with more emphasis on defining the role and functions of the "Innovation Hub" (now renamed as "Green City Lab" under Component 1 during the final project design) to not just act as a fund raiser, but as a more progressive driver and implementer of change, thereby also addressing the related STAP comments. The sustainability of the "Green City Lab" is now much more a focus of the full project design. For further information, a reference is made to chapter III ("Project Strategy") of the project document and to the "Response to STAP comments" attached to this CEO Endorsement Request.

A main difference in the updated project strategy is in reorganizing the former five project components under just three in order to streamline and center the project implementation around the Green City Lab and highlight its role as the main facilitator for different sectoral activities, while also reflecting the required cross-sectoral, co-ordinated and integrated approach to be taken. The title of Component 1 from the PIF is renamed from Innovation Hub Launched and Sustained in the City of Chisinau to Green City Lab because the Green City Lab is essentially an Innovation Hub which identified, designs, implements, and finances green urban development projects. Component 2 from the PIF is now renamed as Comprehensive Sustainable Urban Development Programme, which is a combination of the original Component 2 and Component 3 from the original PIF and which focused on demonstration projects. The new Component 3 is a combination of the original Component 4 and Component 5 and which is now called monitoring and evaluation.

In the full proposal, greater explanation of how the pilot/demonstration projects will work is now provided. Green urban development projects will be selected in three main areas which are a) integrated and participatory land use and mobility planning and low carbon transport b) public and residential buildings energy-efficiency and renewable energy and c) resource efficient waste management. Task leaders will be responsible for identifying, developing, and securing financing for selected green urban demonstration projects on the understanding that the maximum investment grant that can be awarded to any one individual demonstration project will not exceed 25% of the total project cost. Some \$900,000 USD has been allocated in the project budget for supporting the selected pilot/demonstration project cost.

In the full proposal, more attention has been given to the sustainability of the Green City Lab with the aim of transforming it before the mid-term of the project from a donor grant supported entity into a self-sustaining commercial entity which operates along the lines of a not for profit company. By the mid-term of the project, the GCL should be fully established and earning fees and revenues outside the project structure. The management of the Green City Lab will go from a grants only / donor funded approach to an approach where a Board of Directors of the GCL and the Executive Director of the GCL, reporting to

⁶ For questions A.1 –A.7 in Part II, if there are no changes since PIF , no need to respond, please enter "NA" after the respective question.

⁷ For biodiversity projects, in addition to explaining the project's consistency with the biodiversity focal area strategy, objectives

and programs, please also describe which [Aichi Target\(s\)](#) the project will directly contribute to achieving..

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the Board, determines strategy, makes key appointments, and is responsible for the commercial viability of the Green City Lab.

The global environmental problems, root causes and barriers that need to be addressed by the project have remained as already described in the PIF, but with some further elaboration in chapter II (“Development Challenge”) of the project document.

The baseline scenario and associated baseline projects are consistent with what was outlined in the PIF. While several sectoral policy documents, strategies and action plans have been developed in Moldova, they have not really benefitted yet from an integrated planning approach, broad community engagement and cross-sectoral co-ordination to the extent they could, while also often falling short in actual implementation without adequate follow-up and support. While the overall baseline scenario has been described in chapter II of the project document, more detailed discussion on specific sectoral baseline activities can be found from its Annex G.

For the proposed alternative scenario and description of expected outcomes and components, the overall project strategy corresponds to the goal presented in the PIF “to create a model for sustainable green cities in Moldova, supporting a shift towards low-emission and resilient urban development with a focus on the creation of a financially viable and sustainable innovation hub as the creative force behind this transformative shift”. The main difference from the PIF is that it is now completely clear that the Green City Lab will be the focus of all efforts for green urban development, initially managed by the Project Manager but then once it is fully established and with a GCL Project Board functioning and in place, the Green City Lab will operate on a more commercial basis in a manner similar to a not-for profit company. This means essentially that the Green City Lab will operate in a manner that is similar to a company and re-invest profits into green urban development. Models for establishing not for profit companies to promote green urban development in other countries will be explored and examined to see how they can be applied to Moldova and an International Project Advisor will be hired to support the transition. The targeted sectors have remained consistent with those of the PIF, including integrated urban planning, transport and building energy efficiency and the waste sector (including waste to energy projects).

Similar to the PIF, the incremental/additional cost reasoning of the project is primarily building on the establishment of the Green City Lab as an unprecedented new type of entity in Moldova with an approach similar to a 'not-for profit' company and with emphasis on broad community engagement for generating and nurturing new innovative ideas for green city development, cross-sectoral co-ordination and integrated planning. The sector specific incremental value added of the project has been discussed in greater detail in Annex G of the project document, thereby also responding the STAP comments at the work program entry.

The targeted global environmental benefits are consistent with the PIF with the direct GHG emission reduction target of 200 ktons of CO₂eq.

The elements of innovativeness, sustainability, and potential for scaling up have remained as described in the PIF, but with some further elaboration in chapter V of the project document. However, the main point to understand is that the Green City Lab needs to operate on a commercial basis. Over the long-term, it cannot rely only on donor grants in order to sustain itself, the Green City Lab needs a commercial business model in order to succeed. A large part of the early part of this project will revolve around establishing the Green City Lab as an entity with the capacity to secure new clients, grow revenues, and provide a service to municipalities and other key stakeholders throughout Moldova.

A.2. Child Project? If this is a child project under a program, describe how the components contribute to the overall program impact. NA

A.3. *Stakeholders*. Elaborate on how the key stakeholders engagement, particularly with regard to [civil society organizations](#) and [indigenous peoples](#), is incorporated in the preparation and implementation of the project.

As described in PIF, but with some further details and elaboration added in section Partnerships and Stakeholder Engagement of the project documents within chapter IV "Result and Partnerships".

A.4. *Gender Equality and Women's Empowerment*. Elaborate on how gender equality and women's empowerment issues are mainstreamed into the project implementation and monitoring, taking into account the differences, needs, roles and priorities of women and men.

In addition to the elements discussed in the PIF, gender related aspects and the empowerment of women have been addressed in the project document section "Mainstreaming Gender" of chapter IV. The gender perspective needs to and will be taken into account as an essential element when elaborating the details of the project's public outreach and communication strategy and the target groups of project's awareness raising and capacity building events and activities. In relation to project's MRV related activities, the project will gather gender disaggregated data whenever possible with related gender specific indicators added also into the Project Results Framework.

A.5 *Risk*. Elaborate on indicated risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, the proposed measures that address these risks at the time of project implementation.(table format acceptable):

The foreseen main project risks have largely remained as described already in the PIF, but with some further details and elaboration added as presented in the project document in section "Risk Management" of chapter V. Besides, as a standard requirement for all UNDP projects, a Social and Environmental Screening was completed during the project preparatory phase with no major new social or environmental risks emerging from this assessment.

A.6. *Institutional Arrangement and Coordination*. Describe the institutional arrangement for project implementation. Elaborate on the planned coordination with other relevant GEF-financed projects and other initiatives.

During the final project preparation, the component specific lead agency approach presented in the PIF was abandoned in accordance with the UNDP requirements to have just one main Implementing Partner for the project. While the Ministry of Environment was agreed to take this position, the State Chancellery will act as the Government Co-operation Agency to the project by taking into account its role in coordinating the development of national policies and strategies and ensuring inter-ministry collaboration, while also hosting the e-Government Center and being the Implementing Partner of the UNDP Social Innovation Hub project. Other key ministries such as the Ministry of Economy and the Ministry of Regional Development and Construction will be represented in the Project Board together with Chisinau municipality, the UNDP and, as applicable, a representative of the CSO community in Moldova. In addition, key financing partners such as the European Investment Bank (EIB), the European Bank for Reconstruction and Development (EBRD), and the World Bank will be considered to be added to the Project Board.

The final composition of the Project Board will be decided at the outset of project operations and presented in the Inception Report. The Board will be chaired initially by the Ministry of Environment as the Executing Partner. New members into the Board or participants into the Board meetings during the project implementation can be invited at the majority decision of the Board, by ensuring, however, that the Board will remain sufficiently lean to facilitate its effective operations. The Project Board may decide to establish separate working groups such as Urban Task Forces for any of the specific topics the project is dealing with or request UNDP or other Board members to host co-ordination meetings among the key donors, state and local public authorities and/or CSOs implementing project related activities in Moldova.

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The Green City Lab will be the primary vehicle for day to day project implementation and for the project reaching the stated outputs and commercial targets. Initially, the Green City Lab will be run by the Project Manager and then once it is fully established as a legal entity it will fall under the guidance of the GCL Project Board, the Green City Lab will be run by an Executive Director, appointed by the GCL Project Board. The Project Manager will be supported by a Project Assistant and one full time secondee from the City of Chisinau. Later, the Project Manager will have 3 task managers who will lead up three different implementation teams to support with the development and implementation of green urban development projects meaning that within 1-2 years of the project starting the Green Lab is expected to have at least 10 - 15 staff and to be supported by an International Project Advisor whose main goal will be to support the GCL as a commercial entity. The Project Manager will work with his/her project team and the International Project Advisor with the aim to transform the Green City Lab into a commercial self sustaining entity and aim to make sure that this entity is set up by the mid-term of the project. As a part of its duties, the project will also be responsible for following and co-ordinating its activities with other ongoing initiatives in Moldova and for initiating and establishing related partnerships with all partners that can support the design, implementation, and implementation of green urban development projects in Moldova.

The institutional arrangements for project implementation have been described in further detail in project document chapter VIII "Governance and Management Arrangements".

As it concerns the co-ordination with other relevant GEF-financed projects and other initiatives, some projects mentioned in the PIF such as the Joint Integrated Local Development Programmed (JILDP) have already been finalized, while for others such as the GEF funded, UNDP implemented ESCO project, the foreseen co-operation arrangements remain as described in the PIF. Close co-operation with international projects is foreseen, in particular, with the GEF funded Sustainable Cities Integrated Approach Pilot (SC-IAP) project as well as other smart and green cities national projects included in the GEF or other donors' pipeline.

The project has received support letters from both the EBRD and the Carbon Trust in the UK, both of whom have expressed an interest in cooperating with this project once it starts, and so these letters are added as Project Support letters in Annex N of the Project Document.

In addition, the proposed project aims to work and will work very closely with any new Green Climate Fund (GCF) projects in Moldova that are focused on the areas of energy efficiency and green urban development.

Additional Information not well elaborated at PIF Stage:

A.7 Benefits. Describe the socioeconomic benefits to be delivered by the project at the national and local levels. How do these benefits translate in supporting the achievement of global environment benefits (GEF Trust Fund) or adaptation benefits (LDCF/SCCF)?

As outlined in the project baseline analysis, climate change mitigation is not yet viewed as a primary area of concern by Moldovan municipalities and their residents. Most municipalities are facing substantial challenges in trying to secure their financial sustainability and satisfy the demand for basic social and other municipal services such as reliable energy and water supply, public transport and waste management. Financing projects is often a key challenge which is why the main focus of the Green City Lab will not just be on identifying and designing green urban development projects but will also be on identifying, designing, financing and implementing green urban development projects. The project strategy is therefore to build the Green City Lab into a self sustaining enterprise that by the end of the project has additional revenue streams (not just this project) for financing and implementing green urban

development initiatives in Moldova. An initial business plan has been developed during the PPG phase which explores how the Green City Lab may develop and operate and how it might earn revenues from various types of green urban development projects. This business plan will need to be revised, strengthened and updated at the start of the project.

There is a need to identify win-win opportunities addressing the primary concerns of municipal authorities and the city residents, while also producing tangible GHG reduction benefits. There is a wide and constantly growing spectrum of new technical and systemic solutions available, which can improve the quality and efficiency of public services and create new business and employment opportunities for local communities, while simultaneously contributing to climate change mitigation.

The foreseen socioeconomic benefits to be delivered by the project include the creation of green jobs, improving the quality, cost-effectiveness and access to public utility and other services, catalysing private investment and creating new business opportunities as well as contributing to the improved comfort and sanitary conditions of public and residential buildings.

A specific emphasis throughout the project implementation will also be placed on gender related aspects by including gender specific indicators into the project results framework, collecting gender disaggregated data on the project impact during its implementation and specifically encouraging female innovators, entrepreneurs and experts to participate in the project implementation. Gender perspective will also be taken into account, when developing resource mobilization strategies and applying any climate finance instruments. There is a need to ensure adequate access to financial resources for female entrepreneurs, especially those owning small businesses that trade in mitigation technology in line with the Women's Green Business Initiative designed to ensure that efforts to promote greener, more resilient, and sustainable societies are successful from an economic, environmental and social perspective, including through a greater focus on gender equality and women's empowerment.

A.8 Knowledge Management. Elaborate on the knowledge management approach for the project, including, if any, plans for the project to learn from other relevant projects and initiatives (e.g. participate in trainings, conferences, stakeholder exchanges, virtual networks, project twinning) and plans for the project to assess and document in a user-friendly form (e.g. lessons learned briefs, engaging websites, guidebooks based on experience) and share these experiences and expertise (e.g. participate in community of practices, organize seminars, trainings and conferences) with relevant stakeholders.

For knowledge management, the project will build on the "Open Data" and "Open Knowledge" approaches by making all the project related documentation, presentations, training materials as well as proposals and solutions developed in the frame of the project public through project's web-based knowledge management platforms. This applies also to project mid-term and final evaluations, which similar to all GEF financed UNDP implemented projects can be downloaded from the public UNDP website: web.undp.org/gef/evaluation.shtml.

The "Open Data" may be accessed without or with registration, depending on complexity of the requested data and benefits of social networking with people interested in this data. Such people have often proven to be the most valuable part of similar knowledge management systems.

For learning from corresponding initiatives in other countries and for ensuring that the latest global knowledge, systemic approaches and technological developments can be taken into account in defining the challenges, evaluating the proposals received and coaching the proponents and other key stakeholders to develop them further, the project shall link up with other knowledge management networks and platforms such as the already mentioned EIP-SCC, The "Open Knowledge" initiative, UNDP Social Innovation Expert Roster, national innovation foundations such NESTA funded by the UK government

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as well as global challenge prize market places such as InnoCentive to just mention a few. Furthermore, the project will be supported by the international project advisor established under component 1 and component 2, which may be a company or organization with relevant experience and may include a network of international research institutes and professionals that may provide technical backstopping and share knowledge on the latest international developments in their particular field (e.g. as invited speakers and contributors to the events organized by the project)

During its implementation, at least two international knowledge sharing and knowledge management seminars/workshops will be organized, one at the mid-term and one at the end of the project. A final project result and lessons learnt report will be compiled in prior to the end of the project workshop to contribute to similar future initiatives in Moldova and other countries. Regular exchange of information and knowledge sharing is also sought to be facilitated between the Moldova Green Cities project and projects dealing with similar topics in other countries throughout the project implementation.

B. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

B.1 Consistency with National Priorities. Describe the consistency of the project with national strategies and plans or reports and assessments under relevant conventions such as NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, etc.:

Moldova ratified the UNFCCC on June 16, 1995 and the Kyoto Protocol on February 13th, 2003. Moldova has formally associated itself with the Copenhagen accord and made a commitment to ensure that greenhouse gas emissions are at least 25% below 1990 levels by 2010. Moldova has also associated itself with the 2010 Cancun agreement and has committed to developing a low emission development strategy as well as Nationally Appropriate Mitigation Actions (NAMAs). The 2nd National Communications of Moldova to the UNFCCC identifies energy efficiency as a key area where new investments can lead to significant reductions in greenhouse gas emissions, in particular in the urban centers

In its Intended Nationally Determined Contribution (INDC) submitted to the UNFCCC in September 2015, Moldova 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. The specific measures to reach these targets will be further elaborated in the Low Emission Development Strategy (LEDS) until 2030, which is due to be developed and approved by the end of 2016.

All the sectors relevant to the INDC, LEDS and the SDGs have already developed ambitious sectoral strategies and action plans with further backing by the EU-Moldova Association Agreement aiming at aligning the Moldovan legislation with the core EU energy and environmental legislation.

The project is also consistent with the commitment of the City of Chisinau under the EU Covenant of Mayors. In January 2012, the Mayor of Chisinau signed the EU Covenant of Mayors which commits the city to voluntary actions to mitigate the effects of climate change through energy-efficiency programmes, including sustainable urban mobility and green urban development, and through promotion of renewable energy resources. As part of the commitment, Chisinau should aim to reduce GHG emissions by at least 20% below 1990 levels by the year 2020 and prepare a Sustainable Energy Action Plan (SEAP). The Sustainable Energy Action Plan for Chisinau has now been prepared and was submitted in draft form at the end of 2013 and it identified integrated urban planning as a priority for future work. A successfully launched Green City Lab helping to identify, develop and secure financing for green urban development projects can play an important role in helping the City of Chisinau with implementing its commitments under the EU Covenant of Mayors.

C. DESCRIBE THE BUDGETED M&E PLAN: Project monitoring and evaluation will be conducted in accordance with the established standard UNDP and GEF procedures described in further detail in Chapter VII of the Project Document. The project results, as outlined in the project results framework, will be monitored annually and evaluated periodically during project implementation to ensure the project effectively achieves these results. Supported by component/ outcome three: Knowledge Management and M&E, the project monitoring and evaluation plan will also facilitate learning and ensure knowledge is shared and widely disseminated to support the scaling up and replication of project results.

Project-level monitoring and evaluation will be undertaken in compliance with UNDP requirements as outlined in the UNDP POPP and UNDP Evaluation Policy. UNDP Country Office will work with the relevant project stakeholders to ensure UNDP M&E requirements are met in a timely fashion and to high quality standards. Additional mandatory GEF-specific M&E requirements will be undertaken in accordance with the GEF M&E policy and other relevant GEF policies.

In addition to the mandatory UNDP and GEF M&E requirements, other M&E activities deemed necessary to support project-level adaptive management will be agreed during the Project Inception Workshop and will be detailed in the Inception Report. This will include the exact role of project target groups and other stakeholders in project M&E activities including the GEF Operational Focal Point and national/regional institutes assigned to undertake project monitoring. The GEF Operational Focal Point will strive to ensure consistency in the approach taken to the GEF-specific M&E requirements (notably the GEF Tracking Tools) across all GEF-financed projects in the country.

A Project Inception Workshop will be held within the first 2 months of project, followed up by the Project Inception Report including the first year annual work plan and elaborating in further detail the roles, support services and complementary responsibilities of UNDP CO and RCU staff vis à vis the project team. The Terms of Reference for the project staff and required complementary experts will also be discussed again and elaborated further, as needed. In addition, the project targets, assumptions, risks and risk mitigation measures will be reassessed and updated, as required. An Inception Workshop Report is a key reference document and must be prepared and shared with participants to formalize various agreements and plans decided during the inception meeting.

Annual Project Implementation Reports (PIRs) are prepared to monitor the project progress since project start and will cover the reporting period July (previous year) to June (current year) for each year of project implementation. The Project Manager will ensure that the indicators included in the project results framework are monitored annually in advance of the PIR submission deadline so that progress can be reported in the PIR. Any environmental and social risks and related management plans will be monitored regularly, and progress will be reported in the PIR.

An independent mid-term review process will begin after the second PIR has been submitted to the GEF, and the MTR report will be submitted to the GEF in the same year as the 3rd PIR. The MTR findings and responses outlined in the management response will be incorporated as recommendations for enhanced implementation during the final half of the project's duration.

An independent terminal evaluation (TE) will take place upon completion of all major project outputs and activities. The terminal evaluation process will begin three months before operational closure of the project allowing the evaluation mission to proceed while the project team is still in place, yet ensuring the project is close enough to completion for the evaluation team to reach conclusions on key aspects such as project sustainability.

The project's terminal PIR along with the terminal evaluation (TE) report and corresponding management response will serve as the final project report package, complemented by a more detailed project results and lessons learnt report on the challenge programs implemented. The final project report package shall be discussed with the Project Board and other key stakeholders during an end-of-project review meeting to discuss lesson learned and opportunities for scaling up.

The key steps of the project's M&E plan and their indicative budget is summarized in the table below:

GEF M&E requirements	Primary responsibility	Indicative costs to be charged to the Project Budget ⁸ (US\$)		Time frame
		GEF grant	Co-financing	
Inception Workshop	UNDP Country Office	USD 5,000	None	Within two months of project document signature
Inception Report	Project Manager	None	None	Within two weeks of inception workshop
Standard UNDP monitoring and reporting requirements as outlined in the UNDP POPP	UNDP Country Office	None	None	Quarterly, annually
Monitoring of indicators in project results framework	Project Manager	To be carried out as part of annual project reporting	None	Annually
GEF Project Implementation Report (PIR)	Project Manager, UNDP CO and UNDP-GEF team	None	None	Annually
NIM Audit as per UNDP audit policies	UNDP Country Office	None	14,000 over 5 years	Annually or other frequency as per UNDP Audit policies
Lessons learned, knowledge generation and knowledge management	Project Manager	USD 26,000	None	Annually
Monitoring of environmental and social risks, and corresponding management plans as relevant	Project Manager UNDP CO	None	USD 5,000	On-going
Addressing environmental and social grievances	Project Manager UNDP Country Office BPPS as needed	None for time of project manager, and UNDP CO	None	Costs associated with missions, workshops, BPPS expertise etc. can be charged to the project budget.
Project Board meetings	Project Board, UNDP CO, Project Manager	USD 5,000	None	At least twice in the year
Supervision missions	UNDP Country Office	None ⁹	Non	Annually
Oversight missions	UNDP-GEF team	None ¹³	None	Troubleshooting as needed
GEF Secretariat learning missions/site visits	UNDP Country Office and Project Manager and UNDP-GEF team	None	None	To be determined.

⁸ Excluding project team staff time and UNDP staff time and travel expenses.


⁹ The costs of UNDP Country Office and UNDP-GEF Unit's participation and time are charged to the GEF Agency Fee.
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GEF M&E requirements	Primary responsibility	Indicative costs to be charged to the Project Budget ⁸ (US\$)		Time frame
		GEF grant	Co-financing	
Mid-term GEF Tracking Tool updates	Project Manager, Independent Evaluator	To be completed as part of MTR	None	Before mid-term review mission takes place.
Independent Mid-term Review (MTR) and management response	UNDP CO, Project team and UNDP-GEF team	USD 20,000	None	Between 2 nd and 3 rd PIR.
Terminal GEF Tracking Tool updates	Project Manager	To be completed as part of terminal review	None	Before terminal evaluation mission takes place
Independent Terminal Evaluation (TE) included in UNDP evaluation plan, and management response	UNDP CO, Project team and UNDP-GEF team	25,000	None	At least three months before operational closure
TOTAL indicative COST Excluding project team staff time, and UNDP staff and travel expenses		81,000	19,000	

PART III: CERTIFICATION BY GEF PARTNER AGENCY(IES)

A. GEF Agency(ies) certification

This request has been prepared in accordance with GEF policies¹⁰ and procedures and meets the GEF criteria for CEO endorsement under GEF-6.

Agency Coordinator, Agency Name	Signature	Date (MM/dd/yyyy)	Project Contact Person	Telephone	Email Address
Adriana Dinu Executive Coordinator, UNDP GEF		July 5, 2017	John O'Brien EITT-RTS	+90 538 221 2189	john.obrien@undp.org

¹⁰ GEF policies encompass all managed trust funds, namely: GEFTF, LDCF, and SCCF
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ANNEX A: PROJECT RESULTS FRAMEWORK (either copy and paste here the framework from the Agency document, or provide reference to the page in the project document where the framework could be found).

The Project Results Framework can be found from section VI of the UNDP Project document, but is also presented below for easy reference.

This project will contribute to the following Sustainable Development Goal (s): SDG 13: Take urgent action to combat climate change and its impacts, SDG 11: Make cities and human settlements inclusive, safe, resilient and sustainable					
This project will contribute to the following country outcome included in the UNDAF/Country Programme Document: Outcome 3.2 - National policies and strengthened capacities enable climate and disaster resilient, low emission economic development and sustainable consumption. Outcome indicator: Share of renewable energy in the gross domestic consumption; Baseline: 5%					
This project will be linked to the following output of the UNDP Strategic Plan:					
Output 1.3: Solutions developed at national and sub-national levels for sustainable management of natural resources, ecosystem services, chemicals and waste.					
Output 1.4: Scaled up action on climate change adaptation and mitigation cross sectors which is funded and implemented.					
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	Baseline¹¹	Mid-term Target¹²	End of Project Target	Assumptions¹³
Project Objective: 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 kttons of CO _{2eq} calculated over a 20 year lifetime of the investment	200 kttons of CO _{2eq} calculated over 20 year lifetime of the investment	Successfully completed pilot/demo projects with adequate MRV in place

¹¹ 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.

¹² Target is the change in the baseline value that will be achieved by the mid-term review and then again by the terminal evaluation.

¹³ Risks must be outlined in the Feasibility section of this project document.

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Component/Outcome¹⁴ 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 catalyzing sustainable low carbon green city development in Moldova with secured funding to continue its operation also after the UNDP/GEF project closure.	Indicator 4: 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. The GCL established as a self-standing public or semi-public institution (prior to the mid-term review) with a share-holder's agreement, articles of association, a Board, and an Executive Director appointed by 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.	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.	The required co-financing and other contributions for the GCL establishment and operationalisation are materializing. Additional clients (at least 5) and fees (at least \$200,000 per annum) are found. 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.
	Indicator 5: 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.
	Indicator 6: 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

¹⁴Outcomes 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.
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					private sector procurement calls already during the implementation of the UNDP/GEF project.
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.	<i>Indicator 7:</i> The extent, to which integrated and participatory planning methodologies are taken into use in updating the Chisinau 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 Chisinau is outdated	The GCL team and the Chisinau 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 Chisinau 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 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.

Component/ Outcome 3: 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, Chisinau 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.	The project implementation approach and supported projects show success

ANNEX B: RESPONSES TO PROJECT REVIEWS (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF).

COMMENTS OF THE GEF COUNCIL MEMBERS AT WORK PROGRAM INCLUSION

Comments from Germany: Germany welcomes this comprehensive and well thought through proposal. The proposed 2.6 million USD seem appropriate for the envisaged technical assistance, Germany however seeks further clarification on the co-financing: for Component 4 “National Database on Energy Consumption in all Public Buildings & Energy Management”, a GEF contribution of 460,000 USD is envisaged and 6 million from co-financing. However, areas of activity only consist of knowledge management and capacity building (technical components), not including investments, for which the 6.5 million USD seem disproportionately high.

UNDP Response: In the finalized project design submitted for CEO Endorsement, the introduction of the “National Database on Energy Consumption in all Public Buildings & Energy Management” has been integrated as a subcomponent into Component/Outcome 3: “Knowledge management and M&E to facilitate learning, scaling up and replication of project results”. Based on a more detailed baseline analysis after the PIF approval, it was concluded that due to the already existing database managed by the Energy Efficiency Agency (EEA) with over 4000 buildings included, there is no need to start the development of such a database from the scratch, but the Energy Management Information System (EMIS) proposed by the UNDP project can largely use the baseline data from and build otherwise on this already existing database, while at the same time proposing to add some complementary elements to transform the existing static database into a more dynamic one with on-line direct monitoring of the metered energy consumption. Given the fact, however, that much of the required baseline data has already been collected and stored into the existing EEA database, the funding for this particular component could be reduced from USD 460,000 in the PIF to approximately USD 150,000 for the initial introduction and testing of the EMIS. It is to be noted, however, that the budget for Outcome 2 includes some complementary funding for the MRV of the supported pilot/demo projects, which can contribute to the metering and data supply to the EMIS as well. The EEA continues to develop the database also with its own funding, while at the same time the metering equipment in public buildings are in the process of being modernized allowing, among others, distant reading. No specific budget figure for this could be defined and confirmed by a letter for the upcoming next 5 years at the time of this UNDP/GEF project finalisation, however, which is why the state and municipal financing for this meter modernisation was not included into project’s formal co-financing structure.

Comments from the USA: The United States requests that the UNDP modify this proposal to reflect the technical comments submitted by the STAP prior to GEF CEO Endorsement.

UNDP Response: Done. For further details, a reference is made to the responses to the STAP comments below.

COMMENTS FROM THE STAP

The project aim is to create and define an integrated urban planning approach for sustainable green cities, attract new investment and reduce GHG emissions. The capital city of Chisinau has been selected and three additional cities were proposed for replication. Component 1 is to develop an "Innovation hub"; component 2 is waste-to-energy; component 3 is city transport initiatives; component 4 is creation of an energy demand database for public buildings; and component 5, the establishment of an urban development sustainability council to encourage wider deployment.

STAP comment 1: This project will be running in parallel with the Sustainable Cities IAP that has 23 cities with variable population levels (from about 250,000 to 15 million) in the pilot. Therefore it will not have access to the same staff training, interactions, learning from other experiences etc. STAP strongly recommends project proponents to establish links to the Cities IAP and consider STAP screen of the IAP during project preparation. Particularly, it concerns comments related to capacity building and collective impact, urban metabolism, indicators of success and other issues that are largely applicable to both, this proposal and IAP.

UNDP response: During project preparation, the project development team established contacts with the GEF Sustainable Cities IAP initiative and the Team Leader attended the First Meeting of the Consultative Committee for

GEF Sustainable Cities Integrated Approach Pilot (SC-IAP) organized in Paris in October 2015. As a follow up of these initial consultations, the UNDP project development team has followed up with further progress of the SC-IAP, including review of the conclusions of the First Meeting of Global Platform for Sustainable Cities organized in Singapore in March 2016. Among the conclusions of the first technical workshop on “Indicators for Sustainable Cities and Geospatial Tools”, the effective coordination among departments and various levels of government was emphasized as a key for the success of integrated urban planning, while it was also recognized as a typical bottleneck for lasting success. The need for systematically creating a culture of data sharing was highlighted, while also ensuring that the requisite legal agreements are developed to enable data sharing. With respect to indicators for assessing sustainability, the participant of the Singapore meeting agreed “that the existing landscape of indicators is exhaustive and there is a need to prioritize based on what is available rather than reinventing the wheel”. Last but not the least, it was emphasized that “sustainable urban planning must ensure that people and communities are central to this exercise.”

All the elements listed above are in the core of the Moldova Green Cities project strategy and in this respect further follow up with the SC-IAP initiative and participation in its knowledge sharing and capacity building activities is foreseen throughout the project implementation. Corresponding provisions are also integrated in chapter IV of the project document under the section “Partnerships and Stakeholder Engagement”. Since the bulk of substantive work under the SC-IAP initiative on Sustainable Cities Indicators is still to be done, further follow up also in this respect is required. As further outlined by the conclusions of the Singapore meeting: “The starting point of the work program development will be a consultant-supported self-assessment of data availability and institutional mapping at the city level. The Bank team will also take a lead in compiling a sub-set of indicators from existing lists to serve as a menu of options for cities to choose from. The indicators will be broadly aligned with SDGs. The aim will be to complete the city-specific self-assessment by fall 2016, in time for the Second Working Group Meeting.” The GPSC plans to hold its 2nd Global Meeting in 2017 together with several working group meetings leading up to the main event.

STAP comment 2: The project aim is to reduce GHG emissions by 200,000t CO₂-eq but how was that target number determined? Based on the statement "an estimated amount of approximately 200,000 tonnes of CO₂ direct GHG emission reductions from the projects realized by the innovation hub in the City of Chisinau and later by the innovation hubs created in other towns and cities in Moldova" it seems the target is just a "guesstimate" with a little analysis behind it. What if the innovation hub only raises half of the target finance? Does that imply the GHG emissions target will also drop by a half? In the same paragraph 19 on page 12 it states transport projects in Chisinau will result in an estimated 50,000 tCO₂-eq avoided (even though the GEF Transport methodology was not used) and the capture and flaring of landfill gas will result in 150,000 tCO₂-eq avoided. So this begs the questions: Are the "200,000 t of CO₂ direct GHG emission reductions" only from Chisinau or also from the other towns and cities as was implied?

UNDP response: A more thorough and comprehensive GHG reduction assessment was conducted during further project development with the results and assumptions presented in Annex F of the project document. Since final pilot/demo project development and selection will only be done during project implementation by following the participatory integrated approach facilitated by the Green City Lab, the assessment of the direct GHG reduction target of the project was linked to the cost-efficiency criteria adopted at the work program inclusion (PIF) for the GEF grant funding, namely that for each 10 US dollars of GEF grant funding (not including co-financing), at least 1 tons of CO₂eq should be reduced by the supported investments. This combined with the total allocated GEF resources of about USD 1 million for investments will result in the minimum target for direct GHG emission reduction of 100 ktons of CO₂eq for the GEF funds invested. Linked to the other project cost-sharing criteria of not covering more than 20% of the total investment by GEF grant funding, the USD 1 million GEF grant contribution should leverage at least USD 4 million in co-financing. By taking into account the total anticipated co-financing of more than USD 30 million to be disbursed during project implementation for green city investments, adding another 100 ktons of CO₂eq into the project direct GHG reduction target can be considered as a realistic and plausible target. The information on what the project will actually achieve by the end of its implementation will come from project's MRV activities being an obligatory part of all the supported projects.

STAP comment 3: In the municipal solid waste landfill site the gas is to be collected and flared to avoid methane emissions. This is acceptable but why is the methane gas not to be used to provide heat and power for the city which is a well-established technology in many countries?

UNDP response: While flaring of methane was mentioned in the PIF, the National Renewable Energy Action Plan (NREAP) 2013-2020 is envisaging the increase of electricity generation based on biogas by at least five-fold by 2020 and methane collected from landfills is expected to contribute to this. Just flaring the methane collected from landfills is not considered as a recommendable option in Moldova either. Correspondingly, the focus of the GCL in supporting the development and implementation of the pilot projects in the waste sector will be on waste to energy projects rather than just collecting methane and flaring it. In fact, some power generating units using methane collected from landfills have, according to the local reports, already been installed, while others are in the pipeline.

STAP comment 4: Several initiatives have already been taken in Moldova to promote green urban planning and several policies and activities are already in place. Therefore how the actual and measurable baseline data will be determined, and the additional progress made as a result of this GEF project, is not clear. A section on "Lessons learned" as well as a detailed assessment of the baseline initiatives is recommended during project preparation with the evidence provided in the CEO endorsement.

UNDP response: A detailed assessment of all the baseline initiatives was undertaken during the project preparatory phase and the conclusions and lessons learned from these initiatives are reflected in the barrier analysis of chapter II as well as in the formulation of the project strategy and envisaged project outputs. The projected baseline scenarios for the current policies have presented in Annex G and reflected in the assessment of project's consequential GHG emission reduction impact. Other targets in the project results framework have been presented as incremental targets, in which case the baseline target in the PRF can be set at 0 and it is basically up to further analysis of each specific measure supported by the project (not known yet at this stage, but the selection to be concluded during implementation) what the incremental value of GEF support for each of these cases in the light of the indicators included into the PRF will be. Furthermore, the Annex G "Analysis of baseline initiatives, lessons learned and incrementality of GEF support" is listing some complementary pilot/demo project specific indicators, for which the baseline and target can be analyzed and set as part of the project development (and subject to which specific projects and measures will be supported). The same annex also serves the STAP request to add a specific section on the "Lessons learned" from the baseline initiatives supported so far.

Speaking about the project in general, the Green City Lab as a spearhead in implementing the project, is seeking to demonstrate the use of and benefits of integrated participatory planning and open data approach, effective use of new ICT technologies, broad partnership building and community engagement in identifying, developing and implementing low carbon green city solutions at a scale that has not been tested in Moldova before. As such, the proposed project implementation approach clearly represents a fully incremental new initiative in Moldova in line with the key issues to be addressed for sustainable city development, as also outlined by the conclusions of the Singapore SC-IAP / GPSC meeting of March 2016.

STAP comment 5: STAP raises the issue of sustainability and "fit-for purpose" launch of innovation hub(s) in the City of Chisinau and elsewhere in Moldova. As stated in the PIF, an Innovation Hub will help to identify and secure financing for the development of activities under all but one of the project components. It will be staffed by 3-4 people. It does not look like there is any innovation element in this activity other than fund raising. Research information about innovation hubs is abundant and there are multiple examples of innovation hubs that supported establishment of "smart cities" (e.g., innovation districts established in Barcelona, Boston, Singapore, Philadelphia, Skolkovo and others). As an example, most recent results point towards four major features of successful innovation hubs that:

- build collaborative communities with entrepreneurial individuals at the centre;
- attract diverse members with heterogeneous knowledge;
- facilitate creativity and collaboration in physical and digital space; and
- localize global entrepreneurial culture (1).

Regretfully, these features are not considered in the PIF. Therefore STAP recommends that project proponents review existing literature on city innovation hubs with a particular emphasis on the role of these hubs in driving smart city development and consider revising the proposal in the PIF modality focused exclusively on finance mobilization.

UNDP Response: Following the advice of the STAP, a comprehensive global review of innovation hubs and their role in the development of smart cities was undertaken during project development phase with several main findings and conclusions presented in chapter III of the project document. These findings led to the development of the concept of the ‘Green City Lab’ after studying the suggested examples and a number of other forms of innovation hub across a wide range of sectors. The Green City Lab (GCL) concept, as proposed, owes a lot to the emerging and established smart cities of Amsterdam and Vienna. By accepting the differences in context and the stage of urban development in Moldova, the possibility of this being achieved in the future has been retained. Taking the concept further than the innovation hub envisaged in the PIF, the GCL will: i) work at a neighbourhood and city level enabling participatory planning, support behaviour change and promote the benefits of green urban development as a means to achieving a better quality of life; ii) act as a catalyst for funding and a ‘clearing house’ for expertise and project development, supporting local entrepreneurs; iii) work closely with the existing E-Governance Centre and MiLab taking advantage of the digital cluster that has developed around these initiatives; iv) built connections and links with international academic and corporate partners facilitating knowledge transfer and supporting foreign investment; and; v) provide a replicable methodology for sustainable urban planning across Moldova through knowledge management and ‘learning by doing’.

STAP comment 6: Developing the Innovation Hub may help Moldova in its international profile and to raise finance, but it is not clear how this will result in direct GHG emission reductions. This needs to be specified. What will be the outcome if only limited finance is raised? This seems to be a major risk to the success of the project. It is identified as such in Table 1.3 but the mitigation measure of training the Innovation hub staff will not overcome the risk of limited funding becoming available. The statement "If co-financing fails to materialize for green urban development projects in Chisinau then the project can also switch its attention to the development of green urban development projects in other cities and towns in Moldova" is cause for concern. How exactly would that happen and would the GHG emission target still be met?

UNDP Response: A more comprehensive risk assessment was conducted after the PIF approval during the project development phase with the risk of the project not able to raise the required co-financing addressed in chapter V “Feasibility” under section “Risk Assessment” and chapter IX “Financial management”. While the risk of not having the anticipated and committed co-financing materializing during the actual implementation phase is always there (although not assessed as particularly high for this project), the agile project set-up and intervention strategy led by the GCL is expected to significantly mitigate this risks, since the project is not locked to any particular investment proposal at this stage, but the GCL has the flexibility to work on the most feasible ones as long as the direct GHG reduction target of the project and the requirement to have at least one pilot/demo project for each targeted subsector with a potential to collectively meet the direct GHG reduction target of the project (as reflected in the project results framework) will be met.

STAP comment 7: The cost target of <\$10/t CO₂-eq avoided by each activity is commendable, but given the range of activities planned how will this be achieved in practice? Developing an abatement cost curve (2) at an early stage of the project is recommended simply to provide some guidance as to how to best meet the target by giving priority to projects that return emission reductions for less than \$10 /t CO₂-eq. But it should be noted that producing a marginal abatement cost curve is a complex process if it is to be undertaken with any useful degree of accuracy.

UNDP Response: Using an indicative marginal abatement cost curve for pre-assessing different GHG mitigation technologies and measures is indeed a good tool and can be among the knowledge management products to be developed by the Green City Lab at the outset of project operations. As also noted by the STAP reviewer, however, this is both a complex and, consequently, quite costly activity, if to be undertaken and started from scratch with any useful degree of accuracy. Therefore, the project and the GCL will primarily rely on the work already done for producing such curves in Moldova (e.g. by the Climate Change Office under the Ministry of Environment for UNFCCC reporting purposes) and abroad and just update and adjust them to the project specific needs at a level of guidance needed.

STAP comment 8: In estimating GHG impacts of the project, STAP recommends using Guidelines for GHG accounting and reporting of GEF projects to be released at the GEF Council meeting in June 2015. Recommended in the guidelines are Urban Project Methodologies (UPMs) for GHG accounting that include: The GHG Protocol Policy and Action Standard (WRI Standard); Global Protocol for Community-Scale Greenhouse Gas Emission Inventories (GPC);

PAS 2070:2013, Specification for the assessment of greenhouse gas emissions of a city Direct plus supply chain and consumption-based methodologies; and (iv) 1996/2006 IPCC Guidelines for National Greenhouse Gas Inventories, (IPCC Guidelines).

UNDP response: Done and reflected in Annex F of the project document.

STAP comment 9: What indicators will be used to assess whether or not the waste-to-energy component and the transport activity have been successful? For the 4 other cities it states: "Appropriate sustainability indicators will also be adopted by these cities as part of their Green Urban Development Plan". But what exactly are these indicators? Impact indicators should be developed for the entire project that would be able to measure success of project activities in an integrated way. There are multiple matrices available to measure impact of green cities, including European Green City index (3) developments by the Global Cities Indicators Facility and others.

UNDP Response: As concluded by the first technical workshop on "Indicators for Sustainable Cities and Geospatial Tools" organized under the SC-IAP initiative: "the existing landscape of indicators is exhaustive and there is a need to prioritize based on what is available rather than reinventing the wheel". During the project development, several set of suggested green city indicators were reviewed, including the mentioned European Green City Index, OECD Green Growth Indicators and others. It was concluded, however, that more work on this is required during the actual project implementation, while also following the progress on this particular topic within the GEF SC-IAP initiative. By its mission as well as the co-operation agreement with the Chisinau municipality and other key local stakeholders, the Green City Lab will be in an excellent position to further study and follow-up the international development in this field and advocate the mainstreaming of these indicators and targets for local development policies, strategies and plans in Moldova.

STAP comment 10: When developing Component 3 further, and prioritizing certain interventions supporting sustainable low carbon transport planning, STAP recommends using the Avoid-Shift-Improve framework (4). The project document should specify explicitly the choice of specific interventions in terms of their GHG mitigation potential.

UNDP Response: Given the suggested revised project approach not to select the detailed interventions at the project document development stage, this comment will be taken into account when prioritizing interventions to support sustainable low carbon transport and mobility planning by the Green City Lab team working on these issue at the early stage of project implementation. The STAP advisory document: "Advancing Sustainable Low-Carbon Transport" advises to use a strategic approach with combination of measures between technological enhancement and changes in transport behaviour when developing sustainable transport systems.

The key elements of the Avoid-Shift-Improve (ASI) approach refer to: (i) "avoid": Avoid or reduce travel or the need to travel achieved through integrated land-use and transport systems planning; (ii) "shift": Shift to more environmentally friendly modes of transport such as walking, cycling and formal public transport options; and (iii) "improve": Improve the energy efficiency of transport modes and technologies. It is suggested as the conceptual basis for future GEF transport interventions, which are classified into three broad categories: (i) barrier removal - these are often technical assistance type of activities and focus on the removal or lowering of policy, financial, methodological and technical barriers; (ii) catalytic – this mostly concerns investments aimed at replication and scaling up of proven concepts and interventions, while optimizing the leverage of limited GEF resources, e.g. bus rapid transit or non-motorized transportation; and (iii) innovative – this includes both technical assistance and investments to develop or test new concepts related to sustainable low-carbon transport, e.g. urban planning concepts or freight and logistics.

The proposed project approach integrates the principles of ASI both in the technical assistance and for the investments considered for GEF support. By building on the work of the emerging General Urban Plan (PUG) for the City of Chisinau (currently being under development based on the recommendations of the UNDP ESCO Moldova Project), the Green Cities project is envisaging to support the development of a Sustainable Urban Mobility Plan (SUMP). The emerging PUG has a transport component ('Transport Scheme' in the statutory framework) and the advice of the elaboration of this plan already stipulates a 'compact growth model' and elements of transit-oriented development to

reduce trip demand at a spatial level. The proposed SUMP takes this a step further by providing a framework for investment and behaviour change within the context of the statutory planning system. The SUMP is proposed to be based on a participatory planning approach as a function of the Green City Lab and seeks to provide access to sources of European Funding in the future. Based on European best practice the SUMP will cover: a) Public transport; b) Walking and cycling; c) Intermodality; d) Urban road safety; e) Road transport (flowing and stationary); f) Urban logistics; g) Mobility management; and h) Intelligent Transport Systems (<http://www.eltis.org/mobility-plans/sump-concept#sthash.qV8kXxu7.dpuf>). As a result of the participatory approach, pilot projects can be developed that will both improve the attractiveness, reliability and safety of sustainable transport choices. It also seeks to use the ICT cluster around the E-Governance Centre to develop innovative initiatives such as local transport apps and e-ticketing alongside initiatives such as individual travel marketing, signage and way finding as well as development of the cycling network both on and off road.

References used in STAP comments:

1. http://www.ssireview.org/blog/entry/time_to_define_what_a_hub_really_is
2. http://www.mckinsey.com/client_service/sustainability/latest_thinking/greenhouse_gas_abatement_cost_curves
3. <http://www.economistinsights.com/energy/analysis/european-green-city-index/methodology>
4. <https://www.thegef.org/gef/sites/thegef.org/files/publication/STAP-Sustainable%20transport.pdf>.

ANNEX C: STATUS OF IMPLEMENTATION OF PROJECT PREPARATION ACTIVITIES AND THE USE OF FUNDS¹⁵

A. Provide detailed funding amount of the PPG activities financing status in the table below:

PPG Grant Approved at PIF: 100,000			
<i>Project Preparation Activities Implemented</i>	<i>GEF/LDCF/SCCF Amount (\$)</i>		
	<i>Budgeted Amount</i>	<i>Amount Spent To date</i>	<i>Amount Committed</i>
A. Component A: Baseline Report on Green Urban Development in Moldova	20,000	28,136	0
B. Component B: Development of business plans for the innovation hubs	25,000	19,200	12,080
C. Component C: Institutional arrangements, monitoring and evaluation	15,000	11,488	1,825
D. Component D: Project Documentation	40,000	23,941	3,330
Total	100,000	82,765	17,235

ANNEX D: CALENDAR OF EXPECTED REFLOWS (if non-grant instrument is used)

Provide a calendar of expected reflows to the GEF/LDCF/SCCF Trust Funds or to your Agency (and/or revolving fund that will be set up)

n/a

¹⁵ If at CEO Endorsement, the PPG activities have not been completed and there is a balance of unspent fund, Agencies can continue to undertake the activities up to one year of project start. No later than one year from start of project implementation, Agencies should report this table to the GEF Secretariat on the completion of PPG activities and the amount spent for the activities. Agencies should also report closing of PPG to Trustee in its Quarterly Report.

