GEF-6 REQUEST FOR PROJECT ENDORSEMENT/APPROVAL

PROJECT TYPE: Full-Sized Project
TYPE OF TRUST FUND: GEF Trust Fund

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PART I: PROJECT INFORMATION

Project Title: **Sustainable Cities in Turkmenistan: Integrated Green Urban Development in Ashgabat and Awaza**			
Country: Turkmenistan		GEF Project ID:[1]	9279
GEF Agency:	UNDP	GEF Agency Project ID:	5452
Other Executing Partner:	State Committee for Environmental Protection and Land Resources of Turkmenistan	Submission Date:	17 August 2017
GEF Focal Area (s):	Climate Change	Project Duration (Months)	72
Integrated Approach Pilot	IAP-Cities ☐ IAP-Commodities ☐ IAP-Food Security ☐	Corporate Program: SGP ☐	
Name of Parent Program	n/a	Agency Fee ($)	575,704

A. FOCAL AREA STRATEGY FRAMEWORK AND OTHER PROGRAM STRATEGIES[2]

Focal Area Objectives/Programs	Focal Area Outcomes	Trust Fund	(in $) GEF Project Financing	(in $) Co-financing
CCM-2 Program 3	Policy, planning and regulatory frameworks foster accelerated low GHG development and emissions mitigation	GEFTF	6,060,046	57,100,000
	Total project costs		6,060,046	57,100,000

B. PROJECT DESCRIPTION SUMMARY

Project Objective: To promote and implement integrated low-carbon urban systems in Ashgabat and Awaza, thereby reducing GHG emissions and creating other environmental, social, and economic development benefits.

Project Components/ Programs	Financing Type[3]	Project Outcomes	Project Outputs	Trust Fund	(in $) GEF Project Financing	(in $) Confirmed Co-financing
Component 1. Sustainable urban development in Ashgabat	TA	Improved capacities and enabling conditions in Ashgabat to identify, design and implement integrated low-carbon and climate-resilient solutions in public space Reduced GHG emissions and other negative environmental impact through interventions involving public	1.1. Energy-efficient public lighting implemented in Ashgabat, with technical justification prepared for replication, *with reduction of electricity consumption from public outdoor lighting by 1.5 million kWh per year in Ashgabat* 1.2. Sustainable urban transport solutions in Ashgabat developed and applied, *with reduction of 180 million passenger-km per year*	GEFTF	1,355,060	4,790,000
	INV			GEFTF	2,231,473	37,500,000

[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.

		spaces and infrastructure	1.3. Waste volumes reduced and recycling expanded in Ashgabat, *with increase in recycling volume by 10 percent and increase in use of secondary raw materials by 25%* 1.4. City-wide sustainability plans developed and approved *in two other cities*			
Component 2. Sustainable Tourism Infrastructure and Management Practices in Awaza	TA	Improved capacities and enabling conditions in Awaza for integrated low-carbon and climate-resilient tourism development Reduced GHG emissions and other negative environmental impact through interventions involving tourism facilities and infrastructure in Awaza	2.1. Practices to reduce energy consumption, water use, and waste implemented by hotels in Awaza, *with energy/water audit measures implemented that lead to reduction in energy and water consumption per guest by an average of 10%* 2.2. Demonstration and replication of solar-powered public lighting, *with demonstration in at least six fixtures in two different types of applications* 2.3. Optimally efficient surface transportation implemented in Awaza, *with ten solar charging stations installed nationwide at three different sites* 2.4. Managerial and technical capacity of planners, officials, and facility managers in Awaza enhanced via training	GEFTF	775,080	2,100,000
	INV			GEFTF	640,000	7,400,000
Component 3. Municipal and National Policy	TA	Nationwide replication and scaling-up of results of first two components via information dissemination, enhancement of capacity of agencies and managers, and adoption of policies and regulation	3.1. National policies developed and adopted in support of integrated and scaled-up green urban practices, supported by capacity enhancement for responsible agencies and individuals 3.2. National incentives and standards adopted for fuel efficiency of imported cars, *with implementation of standards and*	GEFTF	561,830	3,700,000

			incentives, and verification of actual increase in fuel efficiency of cars by 6 percent			
Monitoring and Evaluation (M&E) and Knowledge Management	TA	Evaluation of project, regular reporting, and dissemination of lessons learned	Documentation of all technical design and performance results of activities Public-relations and knowledge-sharing on sustainable urban development, *with 500,000 citizens reached (250,000 women and girls)* Regular reporting on project progress and results in accordance with UNDP and GEF requirements Compilation and dissemination of overall project results and lessons learned	GEFTF	208,030	110,000
				Subtotal		5,771,473	55,600,000
				Project Management Cost (PMC) (Out of USD 199,999.25 is DPC)[4]	GEFTF	288,573	1,500,000
				Total project costs		6,060,046	57,100,000

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

All sources of co-financing shown here are confirmed via official letters from the relevant agencies (see Annex M of the UNDP Project Document). For more details, please see Section IX of the Project Document.

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Amount ($)
Recipient government	State Committee for Environmental Protection and Land Resources of Turkmenistan	Cash	57,000,000
GEF Agency	UNDP	Cash	100,000
Total Co-financing			57,100,000

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	GEFTF	Turkmenistan	Climate Change		6,060,046	575,704	6,635,750
Total Grant Resources					6,060,046	575,704	6,635,750

a) Refer to the Fee Policy for GEF Partner Agencies

[4] For GEF Project Financing up to $2 million, PMC could be up to10% 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.

E. PROJECT'S TARGET CONTRIBUTIONS TO GLOBAL ENVIRONMENTAL BENEFITS[5]

Provide the expected project targets as appropriate.

Corporate Results	Replenishment Targets	Project Targets
1. Maintain globally significant biodiversity and the ecosystem goods and services that it provides to society	Improved management of landscapes and seascapes covering 300 million hectares	*hectares*
2. Sustainable land management in production systems (agriculture, rangelands, and forest landscapes)	120 million hectares under sustainable land management	*hectares*
3. Promotion of collective management of transboundary water systems and implementation of the full range of policy, legal, and institutional reforms and investments contributing to sustainable use and maintenance of ecosystem services	Water-food-ecosystems security and conjunctive management of surface and groundwater in at least 10 freshwater basins;	*Number of freshwater basins*
	20% of globally over-exploited fisheries (by volume) moved to more sustainable levels	*Percent of fisheries, by volume*
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)	0.366 million tons of CO_{2e} mitigated (direct) and 0.648 million tons of CO_{2e} mitigated (consequential)
5. Increase in phase-out, disposal and reduction of releases of POPs, ODS, mercury and other chemicals of global concern	Disposal of 80,000 tons of POPs (PCB, obsolete pesticides)	*metric tons*
	Reduction of 1000 tons of Mercury	*metric tons*
	Phase-out of 303.44 tons of ODP (HCFC)	*ODP tons*
6. Enhance capacity of countries to implement MEAs (multilateral environmental agreements) and mainstream into national and sub-national policy, planning financial and legal frameworks	Development and sectoral planning frameworks integrate measurable targets drawn from the MEAs in at least 10 countries	*Number of Countries:*
	Functional environmental information systems are established to support decision-making in at least 10 countries	*Number of Countries:*

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

[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.

PART II: PROJECT JUSTIFICATION

A. DESCRIBE ANY CHANGES IN ALIGNMENT WITH THE PROJECT DESIGN WITH THE ORIGINAL PIF[6]

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 area[7] 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.

1. Global environmental problems, root causes, and barriers that need to be addressed

There is no change from the global environmental problem, root causes and barriers described in the PIF. The statement of the problem and the project's theory of change have been elaborated and made more specific, with direct linkages of root causes and barriers to proposed activities, outputs, and outcomes. See Section II, Development Challenge; and Section III, Strategy (including theory of change diagram and description).

2. Baseline scenario or any associated baseline projects

Several baseline conditions in Ashgabat and Awaza have changed since the PIF stage.

- Both cities are now routinely replacing spent outdoor lamps with energy-efficient LEDs.
- LEDs are also in common and increasing use in government buildings.
- Ashgabat now has a fleet of 700 public buses, with plans to raise the number to 1200 with a purchase of new Hyundai buses compliant with the Euro-4 standard.
- It has been determined that there is no need for program intervention to address the urban heat island effect in Ashgabat, as the city is actually cooler than its surroundings because of abundant green spaces and high-albedo surfaces.

Other fundamental issues, including the national policy context, remain unchanged, but have been elaborated in the Project Document, with their nature and relevance described in more detail. See Section III, Strategy (including descriptions of programs, policies, and other baseline conditions at the global, national, and Customs Union levels; Section IV, Results and Partnerships (especially subsection ii on partnerships)). See also the next section on the proposed alternative scenario.

3. Proposed alternative scenario, GEF focal area strategies, outcomes and components

There is no change in the proposed alternative scenario and the GEF focal area strategy as described in the PIF. This project fits within the GEF climate change focal area strategy, seeking to achieve GHG emissions reductions through the promotion of low-carbon urban systems.

The project objective, outcomes, components and thematic emphasis of the project also remain unchanged from the PIF stage. At the level of outputs and activities, the project has been defined more concretely than was elaborated in the PIF, based on research and stakeholder consultation conducted during the preparatory period. The project now has enhanced clarity, better reflects feasibility and need, and reflects the latest understanding of the rapidly changing baseline. These changes include:

- The PIF foresaw piloting of LEDs for street lighting in Ashgabat and Awaza. However, LEDs are already being applied as replacements for most or all spent lamps, under state budget funding. Therefore, the project will not invest further in LEDs in Ashgabat and Awaza, but will instead focus on the related activity of piloting solar-powered lighting and smart-grid technology, and replicating Ashgabat's and Awaza's efforts with LED installation in other cities of Turkmenistan.
- The PIF proposed work on promoting LEDs in indoor public lighting. However, LEDs are already in increasingly wide use in government buildings. Therefore, the project will focus more on the related activity of

[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..

outdoor lighting, which has untapped energy savings potential beyond LED relamping, with smart systems and photovoltaic generation.

- The PIF included assistance to purchase three hybrid buses for Ashgabat, however, the Ministry of Motor Transport already has overseen the acquisition of a modern fleet of public buses for the city, including a purchase in 2016 of 500 new Hyundai buses that comply with the Euro-4 standard. It was therefore determined that a purchase of hybrid buses would be unnecessary and unlikely to yield benefits commensurate with costs. The project will instead focus on the related activity of promoting increased bus ridership and greater system efficiency via route planning, an electronic fare system, and a bus travel planning app, as well as general promotion and long-term planning.
- The PIF included work on reducing the urban heat island effect in Ashgabat, but the State Hydrometeorological Service has since verified that Ashgabat is indeed cooler than surrounding areas, probably because of its copious planted trees along streets and in parks, as well as its abundance of white buildings. Therefore, this activity has been removed from the project.
- The PIF proposed one activity involving the construction of a new "green" hotel in Awaza, embodying integrated sustainable design from the point of view of energy efficiency, sourcing of materials, indoor environmental quality, and so on. However, there are no plans for further construction of hotels at present. There are some facilities now under construction, including a sports recreational complex and a water park, but after these are completed, no further major construction is expected during the project lifetime. Therefore, the project will focus on management of existing hotels, rather than the design and construction of new buildings, with a corresponding minor reduction in the amount of GEF investment support budgeted for Component 2.
- The PIF mentioned sustainable waste management as an area of need, but did not elaborate outcomes and outputs other than waste reduction in hotels. Discussions with the Ministry of Communal Services revealed the need and opportunity for waste reduction and increased recycling on a broader level. This activity should yield notable benefits in reducing litter and landfill burdens, and saving energy insofar as the use of secondary raw material saves energy input into new materials. This project also presents a strong opportunity to expand citizen awareness and engagement. Therefore, an output and associated activities on waste management and recycling have been added to Component 1 in Ashgabat.
- The State Committee for Environmental Protection and Land Resources of Turkmenistan, UNDP and its partners propose to reorganize the elements of the third component (entitled "Urban MRV, Knowledge-Sharing, and Municipal and National Policy" in the PIF) and simplify the title as "Municipal and National Policy," as a separate component on "Monitoring and Evaluation (M&E) and Knowledge Management" has been developed. This split has two key benefits. First, it creates better cohesion, without any confusing divergences within the policy-focused component. Second, it makes the project's M&E and knowledge plan consistent with UNDP guidance, which strongly recommends that M&E and knowledge be conceived as a separate project area. The actual substance of all this work remains essentially unchanged from the PIF.
- The intended outputs in the PIF were highly specific, often with results more at the level of impacts and higher-level outcomes (energy savings, greater fuel efficiency, etc.) rather than actual outputs carried out by the project. The project's stated outputs are now reflective of the outputs to be executed by the project, while impact-level targets for GHG emissions reductions, energy savings, reduced private vehicle traffic, and other parameters are listed appropriately in the Project Results Framework.

4. Incremental /additional cost reasoning and expected contributions from the baseline, the GEFTF, LDCF, SCCF, and co-financing

The incremental cost reasoning remains as that articulated in the PIF. Funding from the GEF is to be used to promote and implement integrated low-carbon urban systems in Ashgabat and Awaza, thereby reducing GHG emissions and creating other environmental, social, and economic development benefits.

The changes listed above (#3) have led to minor adjustments (less than 10% of total project funding from the GEF) in the GEF funds for the various components:

- The total GEF funds allocated to investment remains unchanged at $2,871,473, but Component 1 is to receive more investment support (reflecting expanded activity in pilot projects on smart lighting, transport, and waste), and Component 2 less investment support (reflecting the elimination of the green hotel construction activity).
- The funding for technical assistance in Component 2 has been reduced with the elimination of the green hotel design and construction activity in Awaza. The main focus of technical assistance in Component 2 will be on energy/water audits for hotels, and on small demonstration projects in lighting and electric vehicle charging.
- Technical assistance Component 3 has been expanded to allow for the effective delivery of planning and replication assistance to cities outside Ashgabat and Awaza.
- The amount budgeted for M&E has been expanded from $100,000 (1.65 percent of the total project budget) to about $208,000 (3.4%), or $193,300 not including project staff time. This expansion reflects that this activity area now includes both M&E and knowledge management.

The co-financing plan remains largely unchanged. The proportional allocation of co-financing funds between investment and technical assistance also remains nearly the same as projected at the PIF stage (81 percent for investment at this endorsement stage, versus 84 percent for investment at the PIF stage). There has been some redistribution of expected co-financing amounts to reflect the reframing of some project activities. Accordingly, co-financing for Component 2 has been reduced because of the removal of the green hotel design and construction activity in Awaza. Co-financing for Component 1 has been increased because of the addition of new activities on smart-grid electricity management and residential recycling, as well as the confirmation of interest in development of bus and bicycle lanes in Ashgabat.

5. Global environmental benefits (GEFTF)

The project will lead to avoided GHG emissions in three main ways: (i) reduction of electricity consumption for street lighting and other public lighting in Ashgabat and Awaza, with replication throughout Turkmenistan; (ii) increase in average fuel efficiency of private motor vehicles throughout Turkmenistan, mostly from implementation of standards and incentives; (iii) reduction of energy consumption in hotels in Awaza via the implementation of improved energy and water management practices.

The UNDP Project Document elaborates on the global environmental benefits, including methodology, calculations and targets in Section V 'Feasibility' and 'Calculations of Potential Energy Savings and GHG emissions Reductions' (Annex J). The targets for global environmental benefits are provided in the Project Document Section VI, 'Project Results Framework'.

At PIF approval, direct GHG emissions reductions were estimated during the six-year project period as 249,000 tonnes CO_{2e}, with about half from buildings and improved management of tourism services, one- fourth from transport, and one-fourth from public lighting. However, at CEO Endorsement, direct emissions are considered to be higher as summarized in the table below. At PIF approval, the replication effects during project duration and in the post-project influence period were estimated as an additional 2.5 million tonnes CO_{2e}, however the consequential GHG emissions reduction were determined to be 648,000 tonnes CO2e based on the methodology and calculations presented in the UNDP Project Document (Annex J). A summary of the targeted GHG emissions reductions is provided below.

Summary of targeted GHG emissions reductions

Sector/Activity	Direct GHG emissions reduction (tonnes CO_2)	Consequential GHG emissions reduction (tonnes CO_2)	Total GHG emissions reduction (tonnes CO_2)
Lighting	30,000	Not calculated	30,000
Transport (promotion of proper tire inflation)	20,000	30,000	50,000
Transport (fuel efficiency standards, incentives)	294,000	618,000	912,000
Hotel management	22,500	Not calculated	22,500
TOTAL	**366,500**	**648,000**	**1,014,500**

6. Innovativeness, sustainability and potential for scaling up

Innovation – Consistent with what was described in the PIF, the project will introduce an integrated approach to urban development, as well as specific technical innovations and best practices. Both the integrated approach and the best practices are new and innovative not only for Turkmenistan, but in the broader Central Asian region. Specifically, the novelty of the proposed integrated approach for Ashgabat and Awaza lies in its focus on promoting public spaces that maximize environmental sustainability and attractiveness to cities' residents and visitors via integrated and closely coordinated planning and implementation of "hard" and "soft" investment in key urban sub- sectors (as opposed to a more "traditional" approach whereby urban investments in transport, lighting, built environment, etc., are being planned and undertaken independently from each other). The project will promote both horizontal integration between various urban sub-sectors (managed locally by different departments in the municipalities of Ashgabat and Awaza, such as transport, lighting, communal services), as well as vertical inter- governmental integration (for sectors which planned centrally, such as tourism and energy).

Sustainability – All project activities are designed to generate useful immediate outputs, and to fulfill larger outcomes in terms of time frame and scale. Many elements of the project involve the creation of new sustainable infrastructure and systems whose operating lifetimes extend well beyond the project. Technical capacity building efforts will ensure that responsible agencies and individuals will continue to design, deploy, operate, and maintain infrastructure and systems without further intervention from the project. Outreach and engagement among citizens will likewise build a foundation of awareness (and ideally, ingrained good habits) for continuation of sustainable behavior in waste management and surface travel after the project's end. Furthermore, under Output 3.1, the project and partner agencies will set forth a plan for transfer of responsibility, supported by training and capacity-building, such that the project's activities can be continued sustainably after its close.

Scaling Up – The project has specifically chosen to focus first on Ashgabat and Awaza because these cities embody very large scales of potential impact and because of their visibility will serve as examples for other cities to replicate and scale up similar initaitives on an even wider scale. The project will strongly emphasize the development of technical and financial documentation from projects in Ashgabat and Awaza, to provide justification and a knowledge base to support replication elsewhere. National policy and state budget investment planning will support such replication.

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

n/a

A.3. Stakeholders. Identify key stakeholders and elaborate on how the key stakeholders engagement is incorporated in the preparation and implementation of the project. Do they include civil society organizations (yes ☒ /no☐)? and indigenous peoples (yes ☐ /no☒)? [8]

The general scope and specific directions of stakeholder engagement has remained unchanged from the PIF stage. See the Project Document, Section IV, Results and Partnerships, subsection iii on stakeholder engagement. Civil society organizations in Turkmenistan are limited in the scope of their work, but the project will actively engage nongovernmental groups such as the Union of Entrepreneurs and Industrialists, as well as individual citizens, through its outreach activities – especially regarding transport and waste management in Ashgabat.

[8] *As per the GEF-6 Corporate Results Framework in the GEF Programming Directions and GEF-6 Gender Core Indicators in the Gender Equality Action Plan, provide information on these specific indicators on stakeholders (including civil society organization and indigenous peoples) and gender.*

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, 1) did the project conduct a gender analysis during project preparation (yes ☒ /no☐)?; 2) did the project incorporate a gender responsive project results framework, including sex-disaggregated indicators (yes ☒ /no☐)?; and 3) what is the share of women and men direct beneficiaries (women 50%, men 50%)? [9]

Gender considerations remain essentially unchanged from the PIF stage, but with more underlying analysis and mainstreaming into the project. Whereas the PIF contained a short paragraph about gender issues, the Project Document now has a full gender analysis and action plan, which considers how the project will affect and engage women. See Section IV of the Project Document, subsection iv, as well as Annex L.

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:

The risk analysis and elaboration of proposed mitigation measures are updated from the PIF stage, with more detail and reflection of current conditions, but the essential nature and degree of risks remain essentially unchanged. See the UNDP Project Document, Section V, Feasibility, subsection ii on risk management.

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.

There are no significant changes from the PIF stage, but institutional arrangements have been elaborated and made much more concrete, especially with government agencies that have helped design the project and stand ready to collaborate in all areas. While the Executing Partner in the PIF was listed as the Ministry of Nature Protection, in January 2016 the former Ministry of Nature Protection and the Land Resources Service formerly of the Ministry of Agriculture merged to become the 'State Committee for Environmental Protection and Land Resources of Turkmenistan'. This State Committee is now listed as the Executing Partner in this CEO Endorsement Request document and as the Implementing Partner in the UNDP Project Document.

The project will liaise with projects of the GEF Sustainable Cities Integrated Approach Pilot (SC IAP), which is part of the GEF's Integrated Approach Pilot (IAP) series, which aims to adopt a more holistic approach to sustainable city development. The SC IAP consists of two tracks: (i) city-level projects (23 cities with around US$140 million total GEF grant funding) and (ii) a Global Platform for Sustainable Cities (GPSC) led by the World Bank (with US$10 million GEF grant funding). While this project in Turkmenistan is not one of the city-level projects, the Turkmenistan project will liaise with the SC IAP. The GPSC is a knowledge platform that ties all of the participating SC IAP cities together by providing a collaborative space for both cities and a wide range of entities already working on urban sustainability issues. The project in Turkmenistan will liaise with the GPSC to get program updates from the Collaboration for Development (C4D) website. Project details of UNDP-implemented projects have been shared so that the GPSC is able to provide relevant program materials and find synergies between the SC-IAP/GPSC and this project in Turkmenistan. The project will actively use the GPSC for knowledge management, including to learn from and use similar methodologies and indicators as they evolve.

See the Project Document, Section VIII, Governance and Management Arrangements. Coordination with government agencies as well as with other UNDP projects in the region is further elaborated in Section IV, Results and Partnerships, subsection ii on partnerships.

[9] Same as footnote 8 above.

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)?

Aside from its global environmental benefits in terms of reduced GHG emissions, the project will create significant socioeconomic benefits for the residents and institutions of Turkmenistan's cities including:

- **Financial benefits of energy efficiency.** Implementation of energy efficient measures will lead to avoided costs for consumers and reduced energy subsidies paid by the Government. These financial benefits support the achievement of GHG emissions reductions by increasing political will and motivation for investment.
- **Reduction of traffic congestion.** By encouraging alternatives to private car traffic, the project will not only reduce fuel consumption but will also relieve increasing problems of traffic congestion, in turn creating benefits in terms of social welfare and economic efficiency. These benefits help to magnify global environmental benefits by building good will, citizen engagement, and motivation for replication.
- **Increased speed, efficiency, and user-friendliness of public transportation.** In addition to the general benefits of reduced traffic congestion, the project will also yield benefits specifically for bus riders – reduced wait times, reduced confusion, and increased convenience. These benefits for citizens support achievement of global GHG reductions by increasing motivation to use public transit, and help build a case for replication.
- **Reduction of landfill burdens.** The project's activities on waste will alleviate the growing challenges of waste management and disposal for the Ministry of Communal Services. This benefit for the Ministry helps support global environmental benefits by increasing the Ministry's motivation and political will, and by building the case for replication.
- **Reduction of litter and blight**. Ashgabat is quite a clean city already, but there do remain problems with litter, especially with empty bottles. Waste sorting and associated public information campaigns will help reduce litter and thus further beautify the city. Beautification, in turn, enhances collective pride and political will, which helps to increase the participation and collection rates, thus also supporting the achievement of GHG emissions reductions.
- **Increased attractiveness of Awaza hotels.** The implementation of green hotel management practices in Awaza, combined with public outreach and recognition under Output 2.1, will help make the resort zone more attractive to environmentally-aware tourists, especially those from abroad. If tourists do indeed respond with increased demand, then the market signals will powerfully reinforce the benefits of energy efficiency, ultimately also supporting the achievement of GHG emissions reductions.
- **Citizen engagement and civic pride in sustainable urban practices**. The project will directly engage citizens in urban sustainability, especially regarding transport choices and waste management. This type of engagement is relatively new for Turkmenistan. Behavioral change and participation by citizens will not only increase the technical effectiveness of the project's activities, but will also help strengthen civic pride, and the exercising of individual and collective social responsibility. This pride and social responsibility, in turn, help strengthen political will and engagement, supporting the effective implementation and replication of climate-friendly practice, toward broader GHG emissions reduction benefits at the global level.
- **Reputational benefits for Ashgabat, Awaza, and all of Turkmenistan**. Adoption of urban sustainability practices, combined with the sharing of success stories, will enhance the reputations of Ashgabat and Awaza as progressive, modern, comfortable cities. The project will also enhance Turkmenistan's reputation as a responsible member of the global community of nations and a serious partner in international initiatives on development and climate change mitigation. These reputational benefits reinforce the likelihood of achievement of global environmental benefits because they are key sources of political will in Turkmenistan.

The projects will support also broadly support **gender mainstreaming and its accompanying socioeconomic benefits** for women. Activities and associated benefits will include:

- Research on gender dimensions of transport, leading to the benefits of tailored programs and policies to ensure gender equity and inclusivity;

- Engagement of women as experts, recipients of training, and members of advisory groups, leading to the benefit of expanded capacity and roles in decision making;
- Informational outreach that both portrays and targets women and men equally, leading to the benefit of enhanced recognition of the equal status of women in the country.

These socioeconomic benefits also support the achievement of global environmental benefits by increasing stakeholder engagement and building political support.

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.

Many of the project's outputs will be used as inputs to knowledge-sharing and knowledge management activities – including pilots, documentation, and technical/financial justification of replication; development of standards on best practices in hotel management; and promotion of behavioral change. In all these areas, as well as for the project overall, the project will seek to disseminate new and existing knowledge throughout Turkmenistan by various means, including publications in Turkmen, Russian, and English; workshops and training; advertising; and mass media coverage. All this work will coordinate with the government's outreach efforts among citizens to promote the cities of Ashgabat and Awaza as examples of sustainability, innovation, and social responsibility.

The project will ensure the knowledge management links beyond Turkmenistan's borders, with information flow in both directions. The project will connect directly with other relevant current and recent UNDP projects in the region, including ones on sustainable urban transport in Kazakhstan; energy-efficient urban lighting in Kazakhstan and Armenia; and sustainable tourism development in the Republic of Georgia. Modes of information exchange will include direct contact via Skype and email; document exchange; referral of specialists; and travel for direct interaction as appropriate. International experts will also be engaged to ensure that the project and its partners are fully informed of best technical practices and organizational approaches employed by other cities in Central Asia and worldwide.

The project will seek to disseminate its results using existing information sharing networks and forums of relevant focus in Turkmenistan, regionally and globally. The project will learn from the outputs of the GEF SC IAP, which seeks opportunities for improved efficiency, synergy and increased returns of investment in developing cities with initial engagement (2015-2020), with initial engagement in 23 cities in 11 countries. While not one of the official city participants, the project in Turkmenistan will liaise with the SC IAP's GPSC led by the World Bank including to get program updates from the C4D website. Project details have been shared so that the GPSC is able to provide relevant program materials and find synergies between the SC-IAP/GPSC and this project in Turkmenistan. The project will actively use the GPSC for knowledge management. UNDP may invite representatives of some of the SC IAP city projects to attend the closing workshop of the project in Turkmenistan, and to deliver presentations and disseminate their own materials. The project will also contribute to relevant GEF- and UN-related publications, as appropriate.

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.:

The project fits directly into Turkmenistan's highest-level national strategies and international intentions regarding climate change. Turkmenistan's Intended Nationally Determined Contribution (INDC) statement submitted in September 2015 articulates the intention to reduce emissions by 2030 by 135 million tonnes relative to a projected baseline. The INDC cites the importance of energy efficiency in various sectors directly addressed by the project, including transport, buildings, and waste. The project also has been designed to help fulfill the National Climate

Change Strategy of Turkmenistan, developed with the help of UNDP and adopted in 2012, regarding climate change mitigation.

The project also fits directly within the growing priority of urban sustainability, reflected recently at the highest levels of the Government of Turkmenistan. Most notably, Turkmenistan hosted a global conference on sustainable transport in Ashgabat in late November 2016. This event was the realization of a Resolution introduced by Turkmenistan and adopted by the UN General Assembly in December 2015 (as well as a previous Resolution on sustainable transport and connectivity introduced by Turkmenistan in 2014). Participants formally reaffirmed commitment to sustainable transport and specifically to reducing associated GHG emissions. The event also included a side event on implementation of the Sustainable Development Goals in Turkmenistan. UNDP and the Government are now engaged in concrete follow-up discussions about how to include indicators and targets related to SDGs in the 2017 Presidential Plan for 2017-2021, within the context of the already-adopted national development plan up to 2030.

Ashgabat and Awaza occupy a special place in Turkmenistan's development, not only for their sheer scale, but also for their representation to Turkmen citizens and the whole world of the country's pride, ambitions, and potential. The Government recognizes that these two showcase cities could win the respect and goodwill of the international community (as well as tourism revenue and investment) by demonstrating Turkmenistan's responsible citizenship in the global community, and its readiness to implement smart, technically sound best practices in urban planning and management.

C. DESCRIBE THE BUDGETED M &E PLAN:

The project results as outlined in the Project Results Framework will be monitored annually and evaluated periodically during project implementation. Project-level monitoring and evaluation will be undertaken in compliance with UNDP requirements as outlined in the UNDP POPP and UNDP Evaluation Policy. While these UNDP requirements are not outlined in this Project Document, the 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 (as outlined below) will be undertaken in accordance with the GEF M&E policy and other relevant GEF policies.

In addition to these 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. This could be achieved for example by using one national institute to complete the GEF Tracking Tools for all GEF-financed projects in the country, including projects supported by other GEF Agencies.

M&E oversight and monitoring responsibilities:

Project Manager: The Project Manager is responsible for day-to-day project management and regular monitoring of project results and risks, including social and environmental risks. The Project Manager will ensure that all project staff maintain a high level of transparency, responsibility and accountability in M&E and reporting of project results. The Project Manager will inform the Project Board, the UNDP Country Office and the UNDP-GEF RTA of any delays or difficulties as they arise during implementation so that appropriate support and corrective measures can be adopted.

The Project Manager will develop Annual Work Plans based on the multi-year work plan included in Annex A, including annual output targets to support the efficient implementation of the project. The Project Manager will ensure that the standard UNDP and GEF M&E requirements are fulfilled to the highest quality. This includes, but is not limited to, ensuring the results framework indicators are monitored annually in time for evidence-based reporting in the GEF

PIR, and that the monitoring of risks and the various plans/strategies developed to support project implementation (e.g. gender strategy, KM strategy etc.) occur on a regular basis.

Project Board: The Project Board will take corrective action as needed to ensure the project achieves the desired results. The Project Board will hold project reviews to assess the performance of the project and appraise the Annual Work Plan for the following year. In the project's final year, the Project Board will oversee an end-of-project review to capture lessons learned and discuss opportunities for scaling up and to highlight project results and lessons learned with relevant audiences. Results of this review, as well as findings outlined in the project terminal evaluation report and the management response, will be presented at a closing workshop open to a broad variety of stakeholders from Turkmenistan and from UNDP projects elsewhere in the region. This final review meeting will also discuss the findings outlined in the project terminal evaluation report and the management response.

Project Implementing Partner: The Implementing Partner is responsible for providing any and all required information and data necessary for timely, comprehensive and evidence-based project reporting, including results and financial data, as necessary and appropriate. The Implementing Partner will strive to ensure project-level M&E is undertaken by national institutes, and is aligned with national systems so that the data used by and generated by the project supports national systems.

UNDP Country Office: The UNDP Country Office will support the Project Manager as needed, including through annual supervision missions. The annual supervision missions will take place according to the schedule outlined in the annual work plan. Supervision mission reports will be circulated to the project team and Project Board within one month of the mission. The UNDP Country Office will initiate and organize key GEF M&E activities including the annual GEF PIR, the *independent mid-term review* and the independent terminal evaluation. The UNDP Country Office will also ensure that the standard UNDP and GEF M&E requirements are fulfilled to the highest quality.

The UNDP Country Office is responsible for complying with all UNDP project-level M&E requirements as outlined in the UNDP POPP. This includes ensuring the UNDP Quality Assurance Assessment during implementation is undertaken annually; that annual targets at the output level are developed, and monitored and reported using UNDP corporate systems; the regular updating of the ATLAS risk log; and, the updating of the UNDP gender marker on an annual basis based on gender mainstreaming progress reported in the GEF PIR and the UNDP ROAR. Any quality concerns flagged during these M&E activities (e.g. annual GEF PIR quality assessment ratings) must be addressed by the UNDP Country Office and the Project Manager.

The UNDP Country Office will retain all M&E records for this project for up to seven years after project financial closure to support ex-post evaluations undertaken by the UNDP Independent Evaluation Office (IEO) and/or the GEF Independent Evaluation Office (IEO).

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

Audit: The project will be audited according to UNDP Financial Regulations and Rules and applicable audit policies on NIM implemented projects.[10]

Additional GEF monitoring and reporting requirements:

Inception Workshop and Report: A project inception workshop will be held within two months after the project document has been signed by all relevant parties to, amongst others:

a) Re-orient project stakeholders to the project strategy and discuss any changes in the overall context that influence project implementation;

b) Discuss the roles and responsibilities of the project team, including reporting and communication lines and conflict resolution mechanisms;

[10] See guidance here: https://info.undp.org/global/popp/frm/pages/financial-management-and-execution-modalities.aspx

c) Review the results framework and finalize the indicators, means of verification and monitoring plan;
d) Discuss reporting, monitoring and evaluation roles and responsibilities and finalize the M&E budget; identify national/regional institutes to be involved in project-level M&E; discuss the role of the GEF OFP in M&E;
e) Update and review responsibilities for monitoring the various project plans and strategies, including the risk log; Environmental and Social Management Plan and other safeguard requirements; the gender strategy; the knowledge management strategy, and other relevant strategies;
f) Review financial reporting procedures and mandatory requirements, and agree on the arrangements for the annual audit; and
g) Plan and schedule Project Board meetings and finalize the first-year annual work plan.

The Project Manager will prepare the inception report no later than one month after the inception workshop. The inception report will be cleared by the UNDP Country Office and the UNDP-GEF Regional Technical Adviser, and will be approved by the Project Board.

GEF Project Implementation Report (PIR): The Project Manager, the UNDP Country Office, and the UNDP-GEF Regional Technical Advisor will provide objective input to the annual GEF PIR covering 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.

The PIR submitted to the GEF will be shared with the Project Board. The UNDP Country Office will coordinate the input of the GEF Operational Focal Point and other stakeholders to the PIR as appropriate. The quality rating of the previous year's PIR will be used to inform the preparation of the subsequent PIR.

Lessons learned and knowledge generation: Results from the project will be disseminated within and beyond the project intervention area through existing information sharing networks and forums. The project will identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks and meetings, which may be of benefit to the project. The project will identify, analyse and share lessons learned that might be beneficial to the design and implementation of similar projects and disseminate these lessons widely. There will be continuous information exchange between this project and other projects of similar focus in the same country, region and globally.

GEF Focal Area Tracking Tools: The GEF Climate Change Mitigation Tracking Tool will be used to monitor global environmental benefit results. The baseline/CEO Endorsement GEF Focal Area Tracking Tool – submitted as Annex D to this project document – will be updated by the Project Manager/Team (not the evaluation consultants hired to undertake the Mid-term Review (MTR) or the Terminal Evaluation (TE) and shared with the MTR consultants and TE consultants before the required review/evaluation missions take place. The updated GEF Tracking Tool will be submitted to the GEF along with the completed Mid-term Review report and Terminal Evaluation report.

Independent Mid-term Review (MTR): An independent MTR 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. The terms of reference, the review process and the MTR report will follow the standard templates and guidance prepared by the UNDP IEO for GEF-financed projects available on the UNDP Evaluation Resource Center (ERC). As noted in this guidance, the evaluation will be 'independent, impartial and rigorous'. The consultants that will be hired to undertake the assignment will be independent from organizations that were involved in designing, executing or advising on the project to be evaluated. The GEF Operational Focal Point and other stakeholders will be involved and consulted during the terminal evaluation process. Additional quality assurance support is available from the UNDP-GEF Directorate. The final MTR report will be available in English and will be cleared by the UNDP Country Office and the UNDP-GEF Regional Technical Adviser, and approved by the Project Board.

Terminal Evaluation (TE): An independent 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 Manager will remain on contract until the TE report and management response have been finalized. The terms of reference, the evaluation process and the final TE report will follow the standard templates and guidance prepared by the UNDP IEO for GEF-financed projects available on the UNDP Evaluation Resource Center (ERC). As noted in this guidance, the evaluation will be 'independent, impartial and rigorous'. The consultants that will be hired to undertake the assignment will be independent from organizations that were involved in designing, executing or advising on the project to be evaluated. The GEF Operational Focal Point and other stakeholders will be involved and consulted during the terminal evaluation process. Additional quality assurance support is available from the UNDP-GEF Directorate. The final TE report will be cleared by the UNDP Country Office and the UNDP-GEF Regional Technical Adviser, and will be approved by the Project Board. The TE report will be publicly available in English on the UNDP ERC.

The UNDP Country Office will include the planned project TE in the UNDP Country Office evaluation plan, and will upload the final terminal evaluation report in English and the corresponding management response to the UNDP ERC. Once uploaded to the ERC, the UNDP IEO will undertake a quality assessment and validate the findings and ratings in the TE report, and rate the quality of the TE report. The UNDP IEO assessment report will be sent to the GEF IEO along with the project terminal evaluation report.

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

Mandatory GEF M&E Requirements and M&E Budget:

GEF M&E requirements	Primary responsibility	Indicative costs to be charged to the Project Budget[11] (US$)		Time frame
		GEF grant	Co-financing	
Inception Workshop	UNDP Country Office	$ 3,000	$3,000	Within two months of project document signature
Inception Report	Project Manager and International Consultant	$ 10,500		Within two weeks of inception workshop
Standard UNDP monitoring and reporting requirements as outlined in the UNDP POPP	UNDP Country Office	None		Quarterly, annually
Monitoring of indicators in project results framework	Project Manager and national consultants	$ 32,000	$31,000	Annually
GEF Project Implementation Report (PIR)	Project Manager and UNDP Country Office and UNDP-GEF team	None		Annually
NIM Audit as per UNDP audit policies	UNDP Country Office	Per year: $5,000 Total: $ 30,000		Annually or other frequency as per UNDP Audit policies
Lessons learned and knowledge generation	Project Manager and international consultant (not including specific	$ 15,000	$40,000	Annually, with increased effort in final year

[11] Excluding project team staff time and UNDP staff time and travel expenses.

GEF M&E requirements	Primary responsibility	Indicative costs to be charged to the Project Budget[11] (US$)		Time frame
		GEF grant	Co-financing	
	knowledge generation within components)			
Monitoring of environmental and social risks, and corresponding management plans as relevant	Project Manager UNDP CO	None		On-going
Addressing environmental and social grievances	Project Manager UNDP Country Office BPPS as needed	None for time of project manager and UNDP CO		
Project Board meetings	Project Board UNDP Country Office Project Manager	Per year: $1,300 Total $7,800 (participation of members will be in-kind)	$6,000	At minimum annually
Supervision missions	UNDP Country Office	None[12]		Annually
Oversight missions	UNDP-GEF team	None**Error! Bookmark not defined.**		Troubleshooting as needed
Knowledge management	Project Manager	$24,000 (for workshops, events, materials, etc.)	$30,000	On-going
GEF Secretariat learning missions/site visits	UNDP Country Office and Project Manager and UNDP-GEF team	None		To be determined.
Mid-term GEF Tracking Tool	Project Manager and national consultant	$ 2,000 (see also monitoring of indicators, above)		Before mid-term review mission takes place.
Independent Mid-term Review (MTR) and management response	UNDP Country Office and Project team and UNDP-GEF team	$ 28,000		At end of third project year.
Terminal GEF Tracking Tool	Project Manager and national consultant, with participation by international consultant	$ 2,000 (see also monitoring of indicators, above)		Before terminal evaluation mission takes place
Independent Terminal Evaluation (TE) included in UNDP evaluation plan, and management response	UNDP Country Office and Project team and UNDP-GEF team	$ 36,000		At least three months before operational closure
Translation of MTR and TE reports into English	UNDP Country Office	$ 3,000		
TOTAL indicative COST Excluding project team staff time, and UNDP staff and travel expenses		*$ 193,300*	*$110,000*	

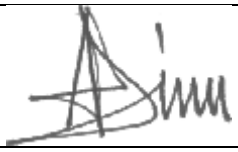
[12] The costs of UNDP Country Office and UNDP-GEF Unit's participation and time are charged to the GEF Agency Fee.

* UNDP inputs for standard monitoring and reporting, the Midterm and Terminal Evaluations, as well as site visits from UNDP-GEF Istanbul Regional Hub, are expected, but associated co-financing amounts are not listed here. UNDP in Turkmenistan has pledged $100,000 in co-financing, which is listed entirely under Project Management. Such management activity supported with these funds will be integrated with project M&E.

PART III: CERTIFICATION BY GEF PARTNER AGENCY(IES)

A. GEF Agency certification

This request has been prepared in accordance with GEF policies[13] 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 UNDP/GEF Executive Coordinator		August 17, 2017	Marcel Alers, Head of Energy, UNDP/GEF	+1-212-906-6199	marcel.alers@undp.org

[13] GEF policies encompass all managed trust funds, namely: GEFTF, LDCF, and SCCF

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).

This project will contribute to the following Sustainable Development Goal (s): Goal 7: Ensure access to affordable, reliable, sustainable and modern energy for all Goal 11: Make cities inclusive, safe, resilient and sustainable
This project will contribute to the following country outcome included in the UNDAF/Country Programme Document: *Outcome 2.2: Environmentally sustainable use of natural resources contributes to effectiveness of economic processes and increased quality of life*
This project will be linked to the following outputs 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 1.5. Inclusive and sustainable solutions adopted to achieve increased energy efficiency and universal modern energy access (especially off-grid sources of renewable energy)*

	Objective and Outcome Indicators	**Baseline**	**Mid-term Target**	**End of Project Target**	**Assumptions**
Project Objective: To promote and implement integrated low-carbon urban systems in Ashgabat and Awaza, thereby reducing GHG emissions and creating other environmental, social, and economic development benefits	Reduction in GHG emissions from transport, public lighting, and hotel management, relative to baseline	Total estimated GHG emissions from motor vehicles, public lighting, and hotels in Awaza: approximately 4.4 million, projected to grow to 5.0 million tonnes per year by 2020	Savings of 80,000 tonnes of CO_2 emissions achieved via project interventions by end of year 3	Savings of 366,500 tonnes of CO_2 emissions achieved via project interventions by end of project	See Annex J of Project Document for details on the input data and calculations that underlie estimates of potential energy savings and GHG emissions reductions
	Reduction in energy consumption from transport, public lighting, and hotel management, relative to baseline	Total energy consumption from motor vehicles, public lighting, and hotels in Awaza estimated at 75,000 TJ per year, projected to grow to 85,000 TJ by 2020	Energy savings of 1350 TJ across all sectors achieved by the end of year 3	Energy savings of 6200 TJ across all sectors	See Annex J of Project Document for details on the input data and calculations that underlie estimates of potential energy savings and GHG emissions reductions
	Number of direct individual and institutional participants (including both women and men) in project-led initiatives on alternative transport, pilot waste sorting and reduction, and green hotel management	No initiatives in these areas, therefore no participation	Confirmed participation by at least 5,000 citizens (2,500 women and girls)	Confirmed participation by at least 30,000 citizens (15,000 women and girls)	

	Objective and Outcome Indicators	Baseline	Mid-term Target	End of Project Target	Assumptions
Component 1: Sustainable urban development in Ashgabat *Targeted Outcomes:* • ***Improved capacities and enabling conditions*** *in Ashgabat to identify, design and implement integrated low-carbon and climate-resilient solutions in public space* • ***Reduced GHG emissions*** *and other negative environmental impact through interventions involving public spaces and infrastructure*	Reduction in number of passenger-km of private car travel, via increased use of alternative modes and carpooling	12.7 billion passenger-km by private motor vehicle per year nationwide	Reduction by 0.5 percent (60 million passenger-km per year)	Reduction by 3 percent (180 million passenger-km per year)	Assumption of a dynamic growing baseline, consistent with documented trends of increasing private vehicle ownership and use. Verification by traffic studies and participant surveys.
	Reduction in electricity consumption from public outdoor lighting in Ashgabat and all of Turkmenistan	131 million kWh of annual electricity consumption by street lighting in all of Turkmenistan in 2015, projected to grow to 192 million kWh by 2023; 67 million kWh in Ashgabat in 2015, projected to grow to 75 million by 2023	Reduction of electricity consumption from public outdoor lighting by 1.5 million kWh per year in Ashgabat, compared with baseline	Reduction of electricity consumption from public outdoor lighting by 1.5 million kWh per year in Ashgabat and 8 million kWh per year in all of Turkmenistan, compared with baseline	See Annex J for a discussion of data and calculations used to define the estimated energy-saving potential and targeted reductions from the lighting sector.
	Reduction in landfill waste from Ashgabat and Awaza relative to baseline from recycling and waste reduction programs	Baseline figures not available; to be determined during the first project year	Increase in recycling volume by 5 percent Increase in use of secondary raw materials by 10 percent	Increase in recycling volume by 10 percent Increase in use of secondary raw materials by 25 percent	Measurement and evaluation of this indicator will depend on the availability of data from waste collection agencies, recycling facilities and landfills.
	Number of cities of Turkmenistan (and total population therein) that formally adopt sustainability practices in transport, lighting, and waste management	No cities have adopted formal sustainability practices	Ashgabat and Awaza have formally adopted sustainability plans in given areas, and/or an integrated sustainability plan	Two other cities in Turkmenistan with total population of at least 175,000 have formally adopted sustainability plans	The project will promote sustainability planning in several cities across Turkmenistan outside of Ashgabat and Awaza, not only two. Partial results regarding sustainability plans will be reported.
Component 2. Sustainable tourism infrastructure and management practices in Awaza	Reduction of energy consumption and water consumption in Awaza hotels	Baseline data unavailable. To be obtained by facility audits in first three project years.	Energy and water audits completed in 24 hotels, with measures identified for cost-effective	Energy/water audit measures implemented, leading to reduction in	See Annex J for a discussion of the potential for energy savings and avoided emissions from Awaza hotels, including

	Objective and Outcome Indicators	Baseline	Mid-term Target	End of Project Target	Assumptions
Targeted outcomes: • *Improved capacities and enabling conditions in Awaza for integrated low-carbon and climate resilient tourism development* • *Reduced GHG emissions and other negative environmental impact through interventions involving tourism facilities and infrastructure in Awaza*			reduction of energy and water consumption per guest by an average of 10 percent	energy and water consumption per guest by an average of 10 percent	comparisons with international benchmarks.
	Adoption and implementation of green hotel management standards by Awaza hotels	No green hotel management standards; only piecemeal application of some practices by individual hotels	Green hotel management standards developed with participation by major hotels in Awaza	Green hotel management standards adopted and implemented	The project will seek to establish standards applicable across the tourist zone. Individual hotels may also choose to establish their own standards that go beyond the standards are developed for all of Awaza.
	Number and capacity of solar-powered charging stations for electric cars	No solar charging stations	One solar charging station installed, with performance evaluation initiated	A total of ten solar charging stations installed nationwide at three different sites	Specifications of equipment to be verified during design and procurement. Establishment of charging stations outside Awaza is contingent on the emergence of a market for electric cars elsewhere in the country.
Component 3. Municipal and National Policy *Targeted outcome:* • *Nationwide replication and scaling-up of results of first two components via information dissemination, enhancement of capacity of agencies and managers, and adoption of policies and regulation*	Existence and content of fuel economy standards and incentives for passenger vehicles	No national fuel economy standards, except for stipulations on maximum engine capacity (3.5 liters) and age of cars sold in Turkmenistan	Approval of standards and incentives embodying a 6 percent increase in average fuel efficiency (up to 11.3 km/l based on original estimate, with exact target to be verified after project studies)	Implementation of standards and incentives, and verification of actual increase in fuel efficiency of cars by 6 percent (up to 11.3 km/l based on original estimate, with exact target to be verified after project studies)	See Annex J for a full discussion of sectoral potential for increased fuel efficiency, and of the methods used to calculate potential energy savings and avoided emissions.
M&E and Knowledge Management	Number of citizens reached by public-relations and knowledge-sharing on sustainable urban development	No outreach on sustainable urban development in Turkmenistan	100,000 citizens reached (50,000 women and girls)	500,000 citizens reached (250,000 women and girls)	Number of citizens reached to be determined in aggregate from mass media circulation data, distribution of materials, etc.

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).

1. **Comments from the GEF Secretariat:** All comments were fully addressed before approval of the final version of the PIF.

2. **Comments at the PIF stage from Germany (GEF Council):** Responses to comments are provided below.

Comment	Response
The proposal clearly describes the current areas with potential for climate-friendly development in the cities of Ashgabat and Awaza. Given the history in the country of access to free gasoline, heating oil, electricity and water, it is no wonder that end-users have lacked incentives to promote efficient use of resources. The project has therefore identified some low-hanging fruits where mitigation measures will result in significant GHG emissions reductions, for example, in the public lighting, public transport and building sectors. Work on designing, building and placing Turkmenistan's first LEED's certified green hotel, as well as further measures to manage energy, waste and water in hotel operations throughout Awaza are good starting points for the nascent tourism industry in the city.	Agreed. The project seeks to address the low-hanging fruit related to GHG emissions reductions in the public lighting, transport, and building sectors, and to promote further climate-friendly development. The Project Document reflects some modifications, including removal of activity on design and building of a green hotel in Awaza (which is no longer needed), but will support measures to manage energy and waste in the participating cities.
The method for arriving at GHG emissions savings is not clear, but given the uncertainties regarding the scale of interventions that will be clarified during the PPG, it seems reasonable to expect an updated GHG reduction estimate during project preparation.	The GHG emissions reduction estimate presented in the PIF has been fully documented and updated during project preparation. A full explanation of sources, assumptions, data including emissions factors, and calculation methodology for GHG emissions reduction is presented in Annex J of the Project Document.
Germany encourages coordination and exchange with the Sustainable Cities IAP, and would appreciate information on the links to the integrated approach and notably its global platform	Coordination with the GEF Sustainable Cities IAP has been noted in the CEO Endorsement Request (section A.6 and A.8) and the UNDP Project Document, in Section IV, Results and Partnerships, subsection (ii) partnerships and (v) on south-south and triangular cooperation. The UNDP project will liaise with projects of the GEF Sustainable Cities Integrated Approach Pilot (SC IAP), which is part of the GEF's Integrated Approach Pilot (IAP) series that aims to adopt a more holistic approach to sustainable city development. While this project in Turkmenistan is not one of the city-level projects, the Turkmenistan project will liaise with the SC IAP and its Global Platform for Sustainable Cities (GPSC) to get program updates from the Collaboration for Development (C4D) website. Project details of UNDP-implemented projects have been shared so that the GPSC is able to provide relevant program materials, and find synergies between the SC-IAP/GPSC and this project in Turkmenistan. The project will actively use the GPSC for knowledge management, including to learn from and use similar methodologies and indicators as they evolve.

3. **Comments at the PIF stage from the GEF Scientific and Technical Advisory Panel:** Responses to comments are provided below.

Comment	Response
1. This project considers the deployment of solar-powered LEDs and cycle lanes and public transit corridors plus the use of hybrid buses and increasing green spaces in two case study cities that are rapidly developing. An energy efficient design of building for a model tourist hotel is planned in Awaza where vehicle fleets are to become more fuel efficient. The findings are to be published so other cities can follow. The three components together make good logical sense. Recognizing the importance of urban design is key for sustainable city designs. Incentivizing residents to accept a low-carbon lifestyle is more challenging. This project looks at both with emphasis on transport and lighting.	Agreed. The final project design contains some modifications involving the mentioned areas (see Part II, section A above), but still integrates transport, lighting, and building operation in Ashgabat and Awaza. The project also continues to emphasize documentation and replication, urban design, and outreach and incentives targeting behavioral change among urban residents.
2. Car ownership is increasing but the demonstration and use of electric vehicles, or indeed electric buses charged by renewable electricity was not considered in the proposal.	Electric and hybrid vehicles are now a specific focus area of project activity, regarding both technology demonstration (charging stations in Awaza) and policy (incentives and standards to raise fuel economy of passenger vehicles). The possibility of focusing on electric and hybrid buses under the current project has been assessed. While recognized as important, it is not included in the project, for the following reasons: • The Ministry of Motor Transport of Turkmenistan already has been purchasing modern buses, without the need for support for further fleet additions. Given these additions, the Ministry cannot commit its budget resources to additional buses. • The presence of a new, modern bus fleet obviates any realistic expectation that demonstration of an electric bus would lead to fleet-wide transformation during the project period. • Use of GEF funds to cover the entire cost of even one electric bus would consume an unacceptably large share of the project budget – no less than $750,000. • In Turkmenistan, the cost-effectiveness of electric or hybrid buses is significantly reduced because of the availability of inexpensive diesel fuel. This further reduces the possibility of replication and scale-up.

Comment	Response
3. Waste management is considered, but the link with anaerobic digestion, landfill gas or waste-to-energy conversion has not been made. These are all well-proven technologies in many cities around the world.	Waste-to-energy conversion and gasification have been considered during project design and planning, but were excluded for the following reasons: • Residential waste separation is completely new in Turkmenistan. Anaerobic digestion on a municipal scale would require separation of food wastes, which would require extensive educational outreach and special handling procedures beyond the scope of the project and beyond the perceived readiness of the citizens of Ashgabat or other cities. It has been agreed that waste separation should first be piloted with glass, plastic bottles, and newspaper, which should be simpler for residents and should involve less confusion and backlash. (The focus on recycling of glass, plastic, and paper should still offer significant energy savings and reduction of natural resource use, while creating new modes of citizen engagement. While recycling is already applied to a limited extent in Turkmenistan, it is still quite new in the country, especially at the level of residential waste separation. Thus the project is well positioned to create incremental benefits with technical assistance and outreach in this area.) • Biogas from crop wastes might be more feasible in Turkmenistan, but would lie outside the concept of sustainable urban development in Ashgabat and Awaza, requiring different partnerships and regional focus. • National partners have not expressed interest in waste-to-energy conversion. It is not expected to be cost-effective because of high initial facility costs, combined with the abundance of cheap natural gas within Turkmenistan. Furthermore, Turkmenistan already has well-developed national strategic plans for energy development. These plans do mention renewable energy, but focus more on solar technologies, with no policy mandate at all for waste-to-energy.
4. The model hotel design is a good concept but, to give it international credibility it should be linked to gaining a LEED building rating http://www.usgbc.org/LEED/ or to the Living Building Challenge http://living-future.org/lbc/certification.	Agreed, however the hotel design activity has been removed from the project because there are no new hotels being designed in Awaza during the project's lifetime. Instead, the project will focus on development of green standards for hotel operation. International expertise will be engaged to ensure that these standards reflect international best practices to the maximal extent possible.

Comment	Response
5. Most of the indicators to be used (Section 4) are measurable so therefore acceptable -- although without water meters, it is not clear how water savings can be assessed.	Water savings are not included as a specific target and indicator in the Project Results Framework. They will, however, be measured with meters put in place in the Awaza hotels that participate in project activity on facility audits for energy and water consumption.
6. No information is provided to back-up the assessments of 249 kt CO2 avoided and 2.5 Mt indirect. What assumptions were made? What is the emissions factor for local grid electricity supply? This is a major gap in the proposal that should be filled at the CEO endorsement stage.	A full explanation of sources, assumptions, data including emissions factors, and calculation methodology for GHG emissions reduction is presented as Annex J of the Project Document.
7. The project proponents should liaise with the other sustainable city projects progressing under the GEF Cities IAP and use similar methodology and indicators as they evolve: https://www.thegef.org/gef/node/10826	Coordination with the GEF Sustainable Cities IAP has been noted in the Project Document, in Section IV, Results and Partnerships, subsection v on south-south and triangular cooperation.
8. It would be useful and recommended to link the proposal to the INDC for Turkmenistan:http://www4.unfccc.int/submissions/INDC/Published%20Documents/Turkmenistan/1/INDC_Turkmenistan.pdf	Linkages between this project and the INDC statement from Turkmenistan are discussed above in Section B and in Section III of the UNDP Project Document.

ANNEX C: STATUS OF IMPLEMENTATION OF PROJECT PREPARATION ACTIVITIES AND THE USE OF FUNDS[14]

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

PPG Grant Approved at PIF: **USD 120,000**			
Project Preparation Activities Implemented	***GEF/LDCF/SCCF Amount ($)***		
	Budgeted Amount	***Amount Spent To date***	***Amount Committed***
Component A: Technical Review	50,000.00	46,717.59	3,282.41
Component B: Institutional arrangements, monitoring and evaluation	45,000.00	42,045.83	2,954.17
Component C: Financial planning and co-financing investments	20,000.00	18,687.04	1,312.97
Component D: Validation Workshop	5,000.00	4,671.76	328.24
Total	120,000.00	112,122.21	7,877.79

[14] 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.

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