



PROJECT IDENTIFICATION FORM (PIF).

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(ies):	Turkmenistan	GEF Project ID: ¹	9279
GEF Agency(ies):	UNDP	GEF Agency Project ID:	5452
Other Executing Partner(s):	Ministry of Nature Protection	Submission Date:	31 July 2015
GEF Focal Area(s):	Climate Change Mitigation	Project Duration (Months)	72
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: \$575,704	

A. INDICATIVE FOCAL AREA STRATEGY FRAMEWORK AND OTHER PROGRAM STRATEGIES²:

Objectives/Programs (Focal Areas, Integrated Approach Pilot, Corporate Programs)	Trust Fund	(in \$)	
		GEF Project Financing	Co-financing
CC 2: Demonstrate Systemic Impacts of Mitigation Options (Program 3: Promote Integrated Low-Emission Urban Systems)	GEFTF	6,060,046	63,500,000
Total Project Cost		6,060,046	63,500,000

B. INDICATIVE 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 Component	Financing Type ³	Project Outcomes	Project Outputs	Trust Fund	(in \$)	
					GEF Project Financing	Co-financing
Component 1: Integrated solutions for low-carbon and climate-resilient public space 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	- Deployment of light-emitting diodes (LEDs) and/or other efficient or renewable-energy-powered light sources in 100 percent of newly lit areas and 50 percent of areas currently lit with inefficient lamps and fixtures along streets and other public areas of Ashgabat - Application of smart grid technology in public lighting networks leads to	GEFTF	1,250,000	3,900,000
	INV			GEFTF	1,621,000	22,500,000

¹ Project ID number will be assigned by GEFSEC and to be entered by Agency in subsequent document submissions.

² When completing Table A, refer to the GEF Website, [Focal Area Results Framework](#) which is an *Excerpt from GEF-6 Programming Directions*.

³ Financing type can be either investment or technical assistance.

		public spaces and infrastructure in Ashgabat	<p>reduction of grid losses by 20 percent</p> <ul style="list-style-type: none"> - Increased share of LEDs in public buildings in Ashgabat by 30 percent - Establishment of new lanes for bicycles and public transit on selected key corridors (at least 20 km in total) and other measures reduce motor vehicle congestion in Ashgabat, leading to a reduction of 10 percent in projected vehicle-hours of driving private cars in the city - Deployment of at least three hybrid public buses in Ashgabat, saving 30 percent in fuel relative to conventional diesel-powered buses - Planting of green spaces over at least 120 hectares and implementation of green and high-albedo roofs in Ashgabat lead to a documented reduction in ambient temperature of 1 degree Celsius, with commensurate reduction in cooling degree days 			
Component 2: Sustainable Tourism Infrastructure and Management	TA	- Improved capacities and enabling conditions in Awaza for integrated low-carbon and climate resilient	- Design and construction of a hotel or guest-house complex of at least 50 guest rooms in Awaza, qualifying for a building certification level of	GEFTF	1,250,000	2,900,000
	INV			GEFTF	1,250,473	31,000,000

Practices in Awaza		<p>tourism development</p> <p>Reduced GHG emissions and other negative environmental impact through interventions involving tourism facilities and infrastructure in Awaza</p>	<p>LEED Platinum or BREEAM Outstanding, and with 50- 65 percent less energy consumption per square meter than other hotels in Awaza</p> <ul style="list-style-type: none"> - Adoption and implementation of green management practices for minimization of energy use, water consumption, and waste at all hotels in Awaza (15 at present, with more planned), leading to a reduction of both carbon intensity and water consumption by 10 percent - Deployment of LEDs and/or other efficient or renewable-energy-powered light sources in 100 percent of newly lit areas and 50 percent of areas currently lit with inefficient lamps and fixtures along streets and other public areas of Awaza - Increased fuel efficiency of at least 50 percent of the existing fleets of taxis, tour buses, and/or airport shuttles in Awaza, by 30 percent compared to baseline 			
Component 3: Urban MRV, Knowledge-Sharing, and Municipal	TA	- Nationwide replication and scaling-up of results of first two components via information	- Documentation and publication of results of design, implementation, and quantitative assessment of project activity in terms of	GEFTF	300,000	1,500,000

and National Policies		dissemination, enhancement of capacity of agencies and managers, and adoption of policies and regulation	<p>energy savings, avoided emissions, water savings, waste reduction, and other indices such as ridership for various modes of transportation</p> <ul style="list-style-type: none"> - Monitoring, reporting, and verification (MRV) procedures for sustainability programs established and successfully executed by city/regional administrations in Ashgabat and Awaza - National and municipal policies on sustainability in cities adopted with regard to lighting and transport, including fuel-efficiency standards for private vehicles resulting in 15 percent increase in average fuel efficiency relative to baseline - Technical and financial justification for replication and scale-up leads to approval of expanded annual state budget allocations to green urban development and sustainable tourism in Ashgabat, Awaza, and other urban areas of Turkmenistan during the project period - Promotional campaign on the advantages and technical solutions for green urban development in 			
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			Ashgabat and Awaza reaches the majority of citizens in those urban areas via advertising and mass media coverage			
			Monitoring and Evaluation	GEFTF	100,000	200,000
			Subtotal	GEFTF	5,771,473	62,000,000
			Project Management Cost (PMC)	GEFTF	288,573	1,500,000
			Total Project Cost		6,060,046	63,500,000

C. INDICATIVE SOURCES OF CO-FINANCING FOR THE PROJECT BY NAME AND BY TYPE, IF AVAILABLE

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

Sources of Co-financing	Name of Co-financier	Type of Co-financing*	Amount (\$)
Recipient Government	Ministry of Nature Protecction	In-kind	1,500,000
Recipient Government	Ministry of Energy	In-kind	1,000,000
Recipient Government	Ministry of Energy	Grant	14,000,000
Recipient Government	Ministry of Communal Services	In-kind	4,000,000
Recipient Government	City Administration of Ashgabat	Grant	17,400,000
Recipient Government	Administration of Balkan Velayat	Grant	25,400,000
GEF Agency	UNDP	Grant	200,000
Total Co-financing			63,500,000

* Co-financing by national government agencies is expected to include cash investment in infrastructure, energy-efficiency measures in buildings, etc., as well as in-kind contributions of agency staff time in installation, maintenance, planning, management, and operation.

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

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	(in \$)		
					GEF Project Financing (a)	Agency Fee (b)	Total (c)=a+b
UNDP	GEFTF	Turkmenistan	Climate Change	CC 2, Program 3: Promote Integrated Low-Emission Urban Systems	\$6,060,046	\$575,704	\$6,635,750
Total GEF Resources					\$6,060,046	\$575,704	\$6,635,750

E. PROJECT PREPARATION GRANT (PPG)⁴

Is Project Preparation Grant requested? Yes ☒ No ☐ If no, skip item E.

PPG AMOUNT REQUESTED BY AGENCY(IES), TRUST FUND, COUNTRY(IES) AND THE PROGRAMMING OF FUNDS

		Country/	Focal Area	Programming	(in \$)
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⁴ PPG requested amount is determined by the size of the GEF Project Financing (PF) as follows: Up to \$50k for PF upto \$1 mil; \$100k for PF up to \$3 mil; \$150k for PF up to \$6 mil; \$200k for PF up to \$10 mil; and \$300k for PF above \$10m. On an exceptional basis, PPG amount may differ upon detailed discussion and justification with the GEFSEC.

GEF Agency	Trust Fund	Regional/Global		of Funds	PPG (a)	Agency Fee ⁵ (b)	Total c = a + b
UNDP	GEFTF	Turkmenistan	CC	(select as applicable)	\$120,000	\$11,400	\$131,400
Total PPG Amount					\$120,000	\$11,400	\$131,400

F. PROJECT'S TARGET CONTRIBUTIONS TO GLOBAL ENVIRONMENTAL BENEFITS⁶

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 tonnes of CO2e	2.75 million tonnes of CO2e , including 249,000 tonnes of CO2e direct emission reductions during the project period, plus additional 2.5 mln tonnes in indirect reductions

⁵ PPG fee percentage follows the percentage of the Agency fee over the GEF Project Financing amount requested.

⁶ Provide those indicator values in this table to the extent applicable to your proposed project. 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. Project Description. Briefly describe: 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 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) innovation, sustainability and potential for scaling up.

Project summary:

The steep and steady rise of the urban population in Turkmenistan poses new and growing concerns about environmental impacts. The sources of these impacts are varied – rising use of motor vehicles, expansion of public lighting, consumption of resources by new residential and tourist zones, and even increases in ambient temperature from the urban heat island effect. Likewise, the impacts themselves range from local pollution and congestion, to depletion of scarce national water resources, to increases in greenhouse gas emissions and contributions to global climate change. There is ample potential for introduction of sustainable urban development to Turkmenistan, but institutional and economic barriers that favor growth and consumption without regard to sustainability, as well as insufficient technical know-how regarding sustainable urban best practices, need to be addressed. The proposed UNDP/GEF project seeks to remove these barriers through an integrated program of activities in Turkmenistan's two most visible, rapidly developing cities, Ashgabat and Awaza, thereby unlocking this technical potential and achieving significant GHG reductions and other environmental benefits.

The project will result in a nationwide transformation of urban planning, investment, and management practices in Turkmenistan, from its current mode focusing on the speed, magnitude, and impressiveness of urban growth characterized by high resource inefficiency and negative environmental impacts towards new paths to integrated, low-carbon sustainable urban development. This transformation will be ensured via a combination of bottom-up interventions demonstrating integrated approaches to sustainable urban development in two key cities, Ashgabat and Awaza, and the nation-wide work to introduce enabling policy framework and raise awareness about urban sustainability among city authorities, residents and visitors.

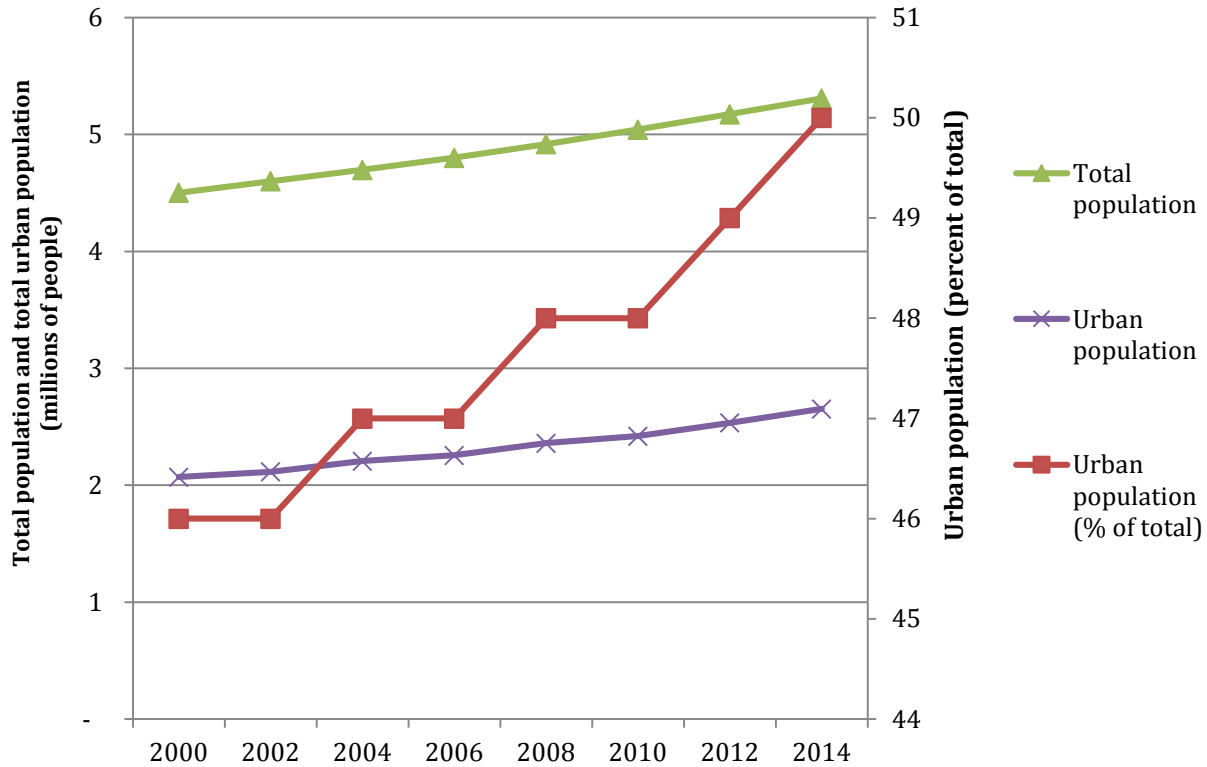
1. Global Environmental Problems, Root Causes, and Barriers

Population growth and urbanization in Turkmenistan

A nation of approximately 5.3 million citizens, Turkmenistan is located in southwestern Central Asia, between the Caspian Sea and the Amu-Darya River. Turkmenistan is bordered by Kazakhstan to the north, Uzbekistan to the northeast and east, Afghanistan to the southwest, and Iran to the south.

The population of Turkmenistan is growing by approximately one percent per year. The country is also undergoing a steady shift toward greater urbanization, with an increasing proportion of citizens living in cities. Figure 1 shows the increase in total population and urban population of the country between 2000 and 2014.

Figure 1
Growth of Total Population and Urban Population of Turkmenistan, 2000-2014



Source:
World Bank,
World

Development Indicators. http://data.worldbank.org/country/turkmenistan#cp_wdi. Accessed in July 2015.

Ashgabat and Awaza

The most notable recent urban growth in Turkmenistan has taken place in two distinct locales – the capital city of Ashgabat and the new resort zone of Awaza on the Caspian Sea. Ashgabat’s population has increased by about 40 percent in the last 15 years, from about 524,000 in the year 2000 to more than 735,000 in 2014. This population growth has triggered the creation of several wholly new developed areas, many major new public and residential building projects, and expansion of associated infrastructure. Notably, the city is currently hard at work creating facilities and upgrading infrastructure in preparation for hosting the 5th Asian Indoor and Martial Arts Games in 2017.

Figure 2
New buildings and infrastructure in Ashgabat



Just eight years ago, Awaza was a modest little beach town with minimal infrastructure or services beyond rest and recreation for local residents. Then, in 2007, President Gurbanguly Berdymuhamedow articulated his vision for creation of a world-class tourist resort at Awaza. Since then, the area has undergone rapid development, with the construction of several hotels, parks, recreation facilities, and accompanying infrastructure, including roads and a full renovation of the airport at the city of Turkmenbashi, about 15 kilometers away. The Government has invested over \$1.5 billion in construction at Awaza so far, with plans for further construction of many more luxury hotels, a full-scale recreation complex, casinos, and shopping centers by 2020. Further infrastructure improvements will include construction of a new gas-fired power plant, a desalination plant on the Caspian Sea, sewage treatment plants, and water supply networks, as well as upgrades to the port of Turkmenbashi to accommodate tourists arriving by boat.⁷ Awaza is also promoted as a potential future spot for headquarters for corporations seeking to establish economic bases on the eastern shore of the Caspian.

⁷ <http://www.mfa.gov.tm/en/turkmenistan/awaza-national-tourist-zone>. Accessed in July 2015.

Figure 3
Awaza



Figure 4
Scale model of planned development at Awaza



Sustainable urban development in Turkmenistan

In Turkmenistan as in all countries worldwide, the development of cities has led to increased negative environmental impact – consumption of natural resources, generation of waste, local air and water pollution, and emissions of greenhouse gases. These problems call for integrated strategies for sustainable urban development, to measurably reduce all of these impacts via a combination of planning, investment, technical solutions, policy, capacity-building, and outreach, without compromising social and economic development goals.

The government of Turkmenistan has begun to recognize the importance of sustainable urban development in Ashgabat and Awaza, not only for mitigation of local and global environmental harm, but also for creation of increased comfort, reduced traffic and travel times, and beautification of public spaces. These social benefits, in turn, should lead to greater happiness among citizens and enhanced demand for tourism and other economic activity.

Furthermore, the Government recognizes that Ashgabat and Awaza, as the nation's primary destinations for foreigners, are very important in terms of the country's global image. To date, development of these two cities has emphasized a grandeur consistent with the nation's rapid rise to prosperity and its high aspirations for future growth. But the Government also recognizes that these two showcase cities could win the respect and good will of the international community (as well as tourism revenue and investment) by demonstrating Turkmenistan's responsible citizenship in the global community of nations, as well as its readiness to implement smart, technically sound best practices in urban planning and management.

Barriers

Several barriers currently stand in the way of sustainable urban development in Ashgabat and Awaza.

Lack of systematic planning for sustainability. Economic development plans and state budget allocations for the nation's cities and regions emphasize economic growth, social benefits, and enhancement of Turkmenistan's image, but environmental sustainability is practically absent as a theme. The absence of central planning for sustainable urban development means that it has no effective drivers or champions in the country.

Weak economic incentives to conserve energy and water. Turkmenistan ranks fourth among the world's nations in proven natural gas reserves. It is also among the top ten countries in Asia in oil reserves. Gas, home heating, and electricity have long been provided essentially free of charge to citizens. Water is likewise provided free of charge. Only since late 2014 has the government begun slowly to reduce these subsidies.

Even gasoline was provided free of charge in rations up to 120 liters per car per month up to 2012. These free rations are no more, but gasoline remains extremely inexpensive at 1 manat, or about \$0.29, per liter.

Industrial enterprises and government agencies do have to pay for utilities, but their share is established by the state budget. Therefore state institutions also do not have a strong direct financial incentive to invest in energy efficiency and resource conservation.

The government is moving cautiously ahead with market reform in the utility sector, gradually raising tariffs, lowering amounts of free or discounted rations, and supporting widespread installation of meters for monitoring of consumption. But consumers are still not accustomed to recognizing or acting upon the financial incentive to conserve energy or water. Furthermore, the reform process will likely continue so gradually that significant subsidies will remain well into the future. In the immediate and medium term, then, non-market instruments – especially state policy and investment – will continue to be the dominant drivers of energy efficiency and resource conservation in Turkmenistan.

Lack of established know-how and technical capacity in new subject areas. The broad concept of sustainable cities and specific technical approaches to urban greening and sustainable tourism are quite new to both the government and the private sector of Turkmenistan. Elaboration and implementation of effective integrated strategies for sustainable urban development will require technical assistance from outside experts and capacity-building among national decision makers and managers.

Lack of technical and financial justification of state investment in urban sustainability. The government of Turkmenistan is ready in principle to place new priority on sustainable development in its cities, but ultimately,

necessary investments from the state budget will require technical and financial justification, to convince the highest-level decisionmakers of their value to the country. For all of the areas proposed by the project –energy-efficient transport, energy-efficient lighting, greening for reduction of the urban heat island effect, and sustainable tourism in Awaza – such justification is minimal or absent at present. Enhanced data and integrated analysis are needed.

2. Baseline Scenario

State investment in Ashgabat and Awaza

Turkmenistan is divided into five regions, known as velayats: Akhal (where Ashgabat is located), Balkan (where Awaza and Turkmenbashi are located), Dashoguz, Lebap, and Mary. Each velayat has its own Social and Economic Development Program for 2012-2016, including substantial capital investments in the velayat cities.

According to national statistics, state investments in Ashgabat in 2013 stood at 23.7 percent of total investment under Social and Economic Development Programs in Turkmenistan. And in addition to the development plan for the Akhal velayat, a separate Concept of Development of Ashgabat for 2015-2016 was passed in 2015 at the initiative of the President, with the specific objective of preparing for the Asian Indoor and Martial Arts Games in 2017.

The Concept of Development of Ashgabat for 2015-16 is expected to result in even more investment in the city, including construction of new residential buildings, capital renovation of more than 3600 buildings, and upgrading of at least 20 avenues and streets. The plan will also provide continuing support for construction of administrative buildings, social and cultural facilities, parking lots, parks, and greenways.

Each velayat is divided into several districts, called etraps. The President's National Program for improving living conditions in etrap-level cities, population centers, and surrounding rural areas calls for \$4 billion in state investment by 2020.

Investments into the Awaza tourism zone are made within the framework of the Balkan Velayat Social and Economic Development Program for 2012 -2016. State investments in this velayat – mainly in the oil and gas sector, as well as development in Awaza – are estimated at 22.5 percent of total investments under Social and Economic Development Programs in Turkmenistan.

As noted in the discussion of barriers, however, planning and investment in Ashgabat and Awaza do not emphasize sustainability, energy efficiency, or climate change mitigation. There remains a need for systematic planning, technical and managerial capacity-building, and technical and financial justification in support of redirection of state investment if sustainable urban development is to be integrated into the nation's social and economic development programs.

Transport in Ashgabat

The city administration of Ashgabat has signed a contract with the Turkish company Nata İnşaat Turizm Taşymajylyk Tijalet we Sanaýi A.Ş. for upgrading the capital's streets over a total length 59.14 km. The contract includes the design and landscaping of adjacent territory, plus 18 bridges, 39 underground and 15 above-ground pedestrian crossings, as well as new construction and upgrading of water and sewage infrastructure. The document called for the initiation of construction work in November 2013 and commissioning of all completed construction projects in December 2016.

There are no official data on private car ownership, but it is widespread and obviously increasing, given rising affluence among citizens in the capital. From Ashgabat's population of about 735,000, we estimate that there are

about 200,000 households, of which about half possess vehicles. Then, adding administrative and commercial vehicles, we calculate indicatively that there are at least about 100,000 to 150,000 vehicles regularly on the road in the capital.

Essentially all vehicles in Ashgabat and the whole country are imported. Many of them are already used. There are no national fuel-efficiency standards for cars, but there is a requirement that vehicles more than 5 years old may not be imported for sale in the country.

Traffic jams are not very common yet in Ashgabat. But they are starting to appear, and there is prevalent concern among officials and citizens that soon traffic in Ashgabat will become a major problem, as in many other growing, thriving cities worldwide. There is currently no systematic plan for forecasting and relieving growing traffic pressure in the capital. Notably, there is very little economic incentive for car owners to find other means of getting around, because gasoline is extremely inexpensive (roughly 1 manat, or \$0.29, per liter as noted above).

There is no metro, nor any tramway system in Ashgabat. But the network of city buses is already quite extensive, well developed, and widely used. The current fare is 1 manat per ride. The fleet of buses consists of a mix of new and older buses. The newer buses are quite comfortable, made mostly by the South Korean manufacturer Hyundai, with Belarusian MAZ buses being introduced on a probationary basis. Buses are powered by diesel fuel. There are no hybrid buses on the road in Turkmenistan.

For the past two years, the government has been actively advocating the use of bicycles for their physical-fitness benefits. The month of August has been officially announced as the month of healthy and environmentally friendly transport, with proactive promoting of bicycle usage. At present, there are no special bicycle paths along roads, but the creation of them would be consistent with this emphasis on bicycles. Given Ashgabat's climate, bicycles could be comfortably ridden for all but the coldest winter months and hottest summer months.

Clearly, given the growth of private automobile use, the strong starting position of bus service, and the nascent interest in bicycle transport in the capital, there is a strong opportunity for enhanced planning, including both optimization of traffic patterns and possible measures to reduce private vehicle use in high-traffic zones, such as setting aside lanes for buses or bicycles only. There is also potential for significant environmental benefits from standards for fuel efficiency for imported new and used vehicles.

Lighting of public spaces in Ashgabat

All investments in public lighting come from the state budget as part of various Social and Economic Development Plans as described above. Street lighting and other public lighting in Turkmenistan are the responsibility of the Ministry of Energy. Ashgabat has an estimated 54,000 public lighting fixtures, and Awaza about 24,000.

In both Ashgabat and Awaza, public lighting has been designed with an emphasis on brightness and light quality, not energy efficiency. But the Ministry has recently received a mandate to use LEDs for all new lighting in both cities. The Ministry has also been tasked to replace high-pressure sodium lamps with LEDs in the two cities. About two-thirds of public lighting in Ashgabat and one-third of public lighting in Awaza remains inefficient. Solar-powered lighting is not in use. Energy-efficient public lighting has not yet been planned in other cities. Any positive technical results from Ashgabat and Awaza would create justification for pursuing replication elsewhere.

The urban heat island effect in Ashgabat

The widespread conventional wisdom among citizens in Ashgabat is that buildings, roads, and the paucity of green spaces contribute to increased heat in the city, where high summer temperatures already regularly exceed 40 degrees Celsius for three months of the year. The urban heat island effect in Ashgabat therefore demands assessment and action, with potential benefits with regard to both climate change mitigation and adaptation.

Most buildings have dark metal roofing. “Cool” roofs (with high albedo) and “green” roofs (with vegetative cover) are absent in the city. City development plans do include parks and greenways, but without analysis or integration with regard to the goal of reducing the heat island effect.

Development priorities in Awaza

Awaza has been conceived as a resort with world-class comfort and full-service amenities. Buildings, infrastructure, and indeed the tourist zone on the whole are all designed to dazzle and impress visitors. The President has also specifically noted that Awaza should embody the most advanced and creative ideas of Turkmen and world experts in architecture, engineering, and planning.

But sustainability has been essentially set aside so far as a goal for the Awaza zone. Meanwhile, almost all major hotel companies of the world are placing very strong emphasis on sustainability, for several reasons – to reduce utility costs, to enhance their reputations and brands, and to exercise corporate social responsibility for its own sake. Furthermore, multiple surveys indicate that tourists prefer green hotels.⁸ It seems clear that in overlooking sustainability so far, Awaza is missing a global trend and an important opportunity to enhance international market interest and good will.

Waste management in Turkmenistan

On May 23, 2015 the Law of Turkmenistan "On Waste" was adopted. This law regulates agency and stakeholder relations in the field of waste management, and is aimed at reducing waste and ensuring rational use of materials in industrial and household activities, in order to prevent their negative impact on human health and the environment. However, current waste management practices are not aligned yet in accordance with this newly adopted law and are still rooted into the Soviet legacy of waste management. Ad-hoc attempts for waste sorting at the user level can be observed in the vicinity of newly built infrastructure and facilities, but in the absence of downstream activities such as recycling, waste sorting has little practical effect.

Municipal and national policy on sustainability

Over the past few years, the President has made regular public statements about the importance of rational use of energy, water, and natural resources. This position is reflected in Turkmenistan’s adoption of a National Climate Change Strategy in 2012, and its current work on developing concrete plans to realize the strategy. But with specific regard to urban development, there are no overarching policy mandates. As noted above, existing Social and Economic Development Plans do not emphasize sustainability and climate change at all.

⁸ See, for example, <http://www.hospitalitynet.org/news/4047426.html> and <http://www.forbes.com/sites/andrewbender/2013/04/22/survey-two-thirds-of-travelers-want-green-hotels-heres-how-to-book-them/>

3. Proposed Alternative Scenario

The proposed UNDP/GEF project seeks to promote and implement integrated low-carbon urban systems in Turkmenistan's two most visible, rapidly developing cities, Ashgabat and Awaza, thereby reducing GHG emissions and other negative environmental impacts, while also promoting the economic and social well-being of citizens and increasing the attractiveness of both cities to visitors. The project will assist national and municipal agencies in introducing integrated approach to urban planning and development along with identification and implementation of technical solutions and steering state investments and national policies toward sustainable urban development in Ashgabat and Awaza.

The project has been designed to contribute to the achievement of the GEF-6 CCM Objective 2/Programme 3 (Promote Integrated Low-Emission Urban Systems), which targets “urban interventions with significant climate change mitigation potential to help cities shift towards low-emission urban development.”

The project would build upon the country's baseline investments and activities in urban development of Ashgabat and Awaza, using GEF-funded technical assistance and incremental investment to ensure that such development is maximally environmentally sustainable and climate-friendly. The project's activities would remove key barriers via systematic planning, technology transfer, capacity-building, and catalysis of state investment. In addition, throughout the PPG phase and during the project, key gaps in data will be filled – number and types of vehicles on the road in Ashgabat, total fuel consumption and emissions, a full inventory of lighting fixtures in public spaces, and the causes and extent of the urban heat island effect – in order to help ensure effective project design and evaluation of results.

Proposed project activities and the scope of urban mitigation actions have been conceived based on their fulfilment of several specific criteria, which will be confirmed during the PPG stage:

- Potential for substantial and cost-effective GHG reduction
- Avoidance of redundancy with existing projects, including the ongoing UNDP/GEF project on energy efficiency in buildings in Turkmenistan
- Potential for integration with existing priorities of Turkmenistan for socio-economic development in urban areas
- The specific significance of Ashgabat and Awaza not only as areas of the fastest urban growth in the country, but also as showcase cities with high visibility and roles in defining the country's present and future national and global identity
- Potential for thematic integration of diverse technical elements of urban sustainability (greening of public space as a unifying theme for a sustainable Ashgabat, and sustainable tourism as the unifying theme for Awaza).

The project will consist of three components, each with multiple activities and planned outputs.

Component 1 seeks to reduce environmental impacts associated with public spaces and infrastructure in Ashgabat. It will seek to increase the energy efficiency of public lighting and transportation through planning, technical measures, and investment. The component also includes activity to quantify and mitigate the urban heat island effect in Ashgabat.

Component 2 seeks to institutionalize sustainability in the emerging tourism sector in Awaza. It will support the design and implementation of green building design in a new hotel. Green practices will also be introduced to

existing hotels via operational standards. Finally, as in Ashgabat, the project will also seek to enhance lighting and transportation efficiency, with solutions specific to Awaza's economic directions and character.

Component 3 will support the scale-up of results from the first two components via monitoring, documentation, knowledge-sharing, and development of national policy. This component will include efforts toward the adoption of national standards for fuel efficiency of imported vehicles and other relevant national policies and regulations.

Component 1: Integrated solutions for low-carbon and climate-resilient public space in Ashgabat

Project's first component will improve capacities and enabling conditions in Ashgabat to identify, design and implement integrated low-carbon and climate resilient solutions in the public space leading to GHG emission reductions and other social and environmental benefits for Ashgabat's residents and visitors.

Activity 1.1. Demonstration and replication of energy-efficient and solar-powered public lighting. The project will provide technical assistance and a share of incremental costs for the installation of energy-efficient street lighting (or other outdoor lighting of public spaces) along one or more major streets in Ashgabat. Newly installed lighting will include LEDs and solar electricity supply, with expected reduction of fossil energy consumption of 50-100 percent per fixture relative to baseline. Application of smart grid technology, where possible, will reduce energy consumption further in lighting networks, with targeted reduction of grid losses by 20 percent. This activity will also involve the promotion of LEDs in indoor lighting of public buildings, with a target of increasing their share of overall lighting in these buildings by at least 30 percent by the end of the project period. Results will be compiled and presented to the Ministry of Energy as justification and technical guidance for replication elsewhere in the city/country. The project will provide technical and management support for implementation and evaluation of replication efforts.

Activity 1.2. Promoting sustainable urban transport solutions. The project will develop an integrated plan for management of growing private motor vehicle traffic in Ashgabat, including designation of special lanes for buses and bicycles (at least 20 km in total), special lane restrictions during peak hours, and/or new incentives for bus ridership leading to a reduction of at least 10 percent in projected vehicle-hours of driving private cars in the city. This component will also include technical and investment support for assessment, incremental purchase cost, and use of efficient hybrid buses, which would be expected to have at least 30 percent greater fuel economy than diesel-powered buses.

Activity 1.3. Reduction of the urban heat island effect via greening of open space and installation of cool roofs. This activity will begin with a quantitative assessment and modelling of the heat island effect in Ashgabat, as well as associated cooling loads in buildings. Based on the results, a combination of measures will be identified to reduce this effect – most likely, high-albedo roofs and planting of trees (at least 120 hectares). The target is to achieve a documented reduction in ambient temperature of 1 degree Celsius, with commensurate reduction in cooling degree days. A comprehensive program will then be developed to apply these measures as widely as possible in both existing and new neighborhoods. Quantitative assessment of reductions in temperature and energy consumption will be repeated after the mitigation measures are applied.

Activity 1.4. Development of city-wide sustainability plans. The project will assist officials from the city administration of Ashgabat, as well as any responsible velayat and national officials, in developing integrated sustainability plans for the city. This work will include assistance in preparing the actual plans, including capital and operational budgets, agency assignments, timetables, performance metrics, and so on. The component will also

deliver training and capacity-building of the officials to ensure that they can integrate sustainability into their own work during and after the project period.

Component 2. Sustainable Tourism Infrastructure and Management Practices in Awaza

The defining outcome of project's second component will be institutionalization of sustainable, low-carbon tourism in Awaza.

Activity 2.1. Design, construction, and operation of a green and energy-efficient hotel. UNDP will support the Balkan velayat authorities and their selected contractors in design of a hotel in Awaza, with state-of-the-art measures for energy efficiency, water conservation, renewable energy supply, and environmentally friendly materials. The legitimacy of this building as the first "green" hotel in Turkmenistan will be certified by one or both of the LEED and BREEAM rating systems. The goal will be for this hotel to earn either a LEED Platinum or BREEAM Outstanding certification, or both. Energy savings from this hotel will be targeted at no less than 65 percent per square meter relative to other hotels in Awaza.

The hotel will enter into operation during the project period. During operation, not only will it provide comfortable rest and services to guests, but it will also serve as an educational platform for designers and operators of other hotels, and a vehicle for publicity for Awaza and green tourism.

Activity 2.2. Implementation of city-wide green standards for management of energy, water, and waste in hotel operations. The project will develop green standards for operation of existing hotels in Awaza, and then will promote their implementation throughout the tourist zone (among 15 existing hotels and the new ones), leading to a reduction of both carbon intensity and water consumption by 10 percent. These standards may include a combination of required actions, including energy audit to identify conservation opportunities in rooms, kitchens, and other facilities such as saunas and swimming pools; ongoing energy management to ensure optimal performance of energy-using systems and controls; water-conservation audit; installation of low-water toilets and shower fixtures; elimination of daily laundering of sheets and towels; reduction of waste in packaging and other disposable items; and so on. Results will be measured at all participating and non-participating hotels. As with Output 2.1, the technical content of this activity will be accompanied by promotional efforts to draw attention to the green practices and their importance to the hotels of Awaza.

Activity 2.3. Demonstration and replication of energy-efficient and solar-powered public lighting. As in Ashgabat, the project will design one or more upgrades of public lighting in Awaza, and will cover a portion of incremental costs with GEF funds. These upgrades could involve simple street lighting or more complex, visually creative installations in parks or other recreation sites, including those involving color, and could involve efficiency, renewable energy supply, or both. The design process and installed performance of the new lighting system will be documented and used as justification and technical guidance for replication throughout the tourism zone. The target is to achieve by the end of the project the deployment of LEDs and/or other efficient or renewable-energy-powered light sources in 100 percent of newly lit areas and 50 percent of areas currently lit with inefficient lamps and fixtures along streets and other public areas of Awaza.

Activity 2.4. Optimally efficient surface transportation. Tourism in Awaza is still at a rather moderate level. Therefore, there is no pressing need at present for traffic management plans. Furthermore, an emphasis on public bus transport would seem inconsistent with the character of the site as a luxury travel destination. There is, however, some opportunity to increase energy efficiency in transport in Awaza by promoting the use of hybrid and/or electric vehicles – taxis, tour buses and vans, and shuttles to and from the airport in Turkmenbashi. The project will assist

local authorities in designing programs to encourage their use, either via mandates for state entities, or incentives for private transportation providers with the aim of increasing fuel efficiency of at least 50 percent of the existing fleets of taxis, tour buses, and/or airport shuttles in Awaza, by 30 percent compared to baseline.

Activity 2.5. Capacity-building of planners, officials, and managers of tourist facilities in Awaza. In order to support the effective implementation of all the other activities under this component, the project will deliver technical and managerial training to a wide array of responsible parties in Awaza – urban planners, administrators, hotel managers, maintenance personnel, and others. This training will provide technical guidance on planning, operation, monitoring, and maintenance of new systems in building, lighting, and transport. More broadly, it will also clarify the concept and the advantages of sustainability in order to help ensure ownership of new practices.

Component 3. Monitoring, Knowledge-Sharing, and Municipal and National Policy

The intended outcome of the project's third component is the nation-wide replication and scale-up of results of the first two components via information dissemination, enhancement of capacity of agencies and managers, and adoption of supportive policies and regulation.

Activity 3.1. Monitoring, reporting, and verification (MRV). The project will document all of the technical design and performance results of its activities in lighting, transport, hotel design and management, and reduction of ambient temperatures and cooling loads. Furthermore, at the level of the whole project, progress, quantitative results, and lessons learned will be regularly compiled and reported to UNDP and GEF in accordance with established requirements for monitoring, reporting, and verification of project activity. This work will feed substantially into the Midterm and Terminal Evaluations, and will also result in a final report on project results and lessons learned, as well as numerous smaller reports on specific subjects. This activity will also include the establishment of procedures and responsibilities for MRV efforts by Turkmen agencies in assessing sustainability programs in both Ashgabat and Awaza. These procedures will remain in place after the end of the project, thus helping to assure effective and responsive management of future sustainability efforts.

Activity 3.2. Knowledge-sharing and public-relations outreach throughout Turkmenistan and among similar projects in the region. The project will seek to maximize knowledge-sharing, both among the cities of Turkmenistan and among the countries of the region. Knowledge-sharing will flow both to and from the project. Modes of information exchange will vary widely, depending on intended audiences. Reports on results and lessons learned from all project activities, as compiled in Activity 3.1, will be made available via UNDP's website and will be presented at conferences and other forums as appropriate. Project staff will invite interested visitors to the two cities, with field visits to demonstration sites.

The project will also conduct broader-themed public-relations activity to the general public within and outside Turkmenistan. It will seek to tell success stories from the two cities in the national and international mass media, as well as social media where accessible. This work will be designed for synergy with the government's PR efforts among citizens and the public to promote the two cities as examples of sustainability, innovation, and social responsibility.

Activity 3.3. National policies in support of integrated and scaled-up green urban practices. National policies are needed to set clear mandates for sustainable urban development, to define specific action steps and agency roles, to ensure integration and mutual consistency among goals of social and economic development and sustainability, and to provide a basis for needed state investment and nationwide scale-up. The project will support such policies,

possibly as stand-alone documents (such as Ministry orders or action plans) or possibly as part of the National Low-Emission Development Plan.

Activity 3.4. National standards for fuel efficiency of imported cars. Finally, and not least, the project will conduct analysis and develop standards or regulations for fuel efficiency of imported cars. By the end of the project, these standards would result in an increase by 15 percent in the fuel efficiency of cars imported for sale in the country. The exact form of these standards or regulations (required average efficiency over a whole vendor fleet, or overall limits or tariffs on the worst “gas-guzzlers,” or other approaches) will be more closely assessed during project preparation and implementation.

4. Incremental Reasoning and Expected Global Environmental Benefits

Throughout all three components, and in both Ashgabat and Awaza, the project’s GEF-funded activities will be designed as incremental enhancements of baseline government urban development programs and investments. The purpose of these incremental enhancements will be to yield GHG emissions reductions and other environmental benefits relative to the baseline. These emissions reductions will be achieved in a wide variety of ways.

- **Reduction of private motor vehicle use in Ashgabat**, in terms of both numbers of car trips and time per trip, through improved street planning and public transportation
- **Reduction of energy consumption by public buses in Ashgabat** by use of hybrids instead of diesel-fueled vehicles
- **Reduction of electricity consumption for street lighting and other public outdoor and indoor lighting in Ashgabat**
- **Reduction of ambient temperatures in Ashgabat** through the use of green and/or cool roofs, thereby reducing the need for mechanical cooling of buildings
- **Reduction of energy consumption in the green hotel construction project in Awaza**
- **Reduction of energy consumption in all hotels in Awaza via the implementation of improved energy management practices**
- **Reduction of water consumption in all hotels in Awaza**, leading to reduced energy consumption at water supply and wastewater facilities, including the desalination plant on the Caspian Sea
- **Reduction of energy consumption for street lighting and other public outdoor lighting in Awaza**
- **Greater efficiency of taxis and other transport in Awaza**
- **Replication** of innovations and policies in all of the technical areas listed above, both within Ashgabat and Awaza, and throughout the country

The project will result in an estimated combined direct reduction of GHG emissions during the six-year project period of 249,000 tonnes CO₂e– about half from buildings and improved management of tourism services, one-fourth from transport, and one-fourth from public lighting. Spillover replication effects during project duration and in the post-project influence period would increase this figure by an estimated additional 2,5 mln tonnes CO₂e. The exact target, full quantitative analysis, and discussion of methodology will be defined during the project preparatory period.

5. Innovation, Sustainability, and Scale-Up

5.1 Innovation: The project will introduce an integrated approach to urban development, as well as specific technical innovations and best practices in urban energy, water, and transport sectors. 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).

5.2 Sustainability: The project will result in a nationwide transformation of urban planning, investment, and management practices in Turkmenistan, from its current mode focusing on the speed, magnitude, and impressiveness of economic growth, to new paths to integrated, low-carbon sustainable urban development, lasting permanently beyond the project period. Sustainability of this transformation beyond the end of the project will be assured in several ways. GEF funds and government co-financing will be used for investment in long-lasting infrastructure and equipment such as street lighting fixtures, grid technology, built measures in hotels, buses, and transport lanes. To maximize sustainability of this investment, the project will primarily rely on government co-financing with GEF funds covering only incremental part (i.e. in the ratio of approximately 1:10). Also, in addition to the physical infrastructure itself, the project will also create lasting human capacity to maintain this infrastructure via training among managers and decision-makers, as well as enduring institutional support via adoption of formal government policies, as well as management practices among hotels and agencies responsible for transportation and lighting. The project will also establish environmental sustainability as core parts of the "brand," or marketing identity, of both cities, further assuring that the cities will continue green practices even after the project period. Ultimately, this branding and the civic pride that comes with it may well turn out to be the most powerful instrument for long-term sustainability of transformed urban development paths in the country. (A detailed post-project transition strategy will be fully elaborated during the project period.)

5.3 Scaling-up: Scale-up of results will occur beyond Ashgabat and Awaza in Turkmenistan's other velayat capitals, Turkmenabat (population about 280,000), Dashoguz (250,000), Mary (125,000), and Balkanabat (95,000), as well as other major population centers. This scale-up will be facilitated under Component 3 of the project with minimal GEF funding because demonstrations implemented by the project in Ashgabat and Awaza will provide the technical and financial justification for application of state budget funds for replication, in connection with the normal state budget allocations for development, operation, and maintenance of urban services and infrastructure in these other cities. Specifically, Activity 3.1 will provide robust MRV data to justify the cost-effectiveness of proposed integrated approach for investment in sustainable urban development. Secondly, under Activity 3.2. The project will support knowledge-sharing and public-outreach to other cities in Turkmenistan about integrated approach to sustainable urban development using Ashgabat and Awaza as case-studies building on and complementing the government's PR efforts to promote the two cities as examples of sustainability, innovation, and social responsibility. Lastly, within the Activity 3.3, the project will help design and facilitate the adoption of relevant policies in support of integrated and scaled-up green urban practices, including assignment of clear mandates at central/local level for sustainable urban development, mandatory provisions, requirements and standards for planning and implementation of state-funded investments in cities based on integrated approach.

B. Stakeholders. Will project design include the participation of relevant stakeholders from civil society and indigenous people? (yes ☒ /no ☐) If yes, identify key stakeholders and briefly describe how they will be engaged in project design/preparation:

In both project preparation and implementation, UNDP will engage not only policymakers at the national and municipal level, but also department-level staff responsible for street lighting, planning, maintenance of public spaces, transportation, construction, and delivery of tourist services. Their input will be important not only in building a sense of broad national ownership of the project and its activity, but also in helping assure the validity and practicality of proposed activities. These stakeholders will be invited to participate in meetings with the project preparation team, to prepare written briefing material, and to review drafts of the project document.

During project preparation, the UNDP team will also conduct assessments of transportation patterns in both Ashgabat and Awaza, including private vehicle use, public transportation, and bicycling. This work will include communication with citizens either via focus groups or via surveys.

The project's benefits will extend to all ethnic nationalities within Turkmenistan's cities, including the majority indigenous Turkmen population as well as Uzbeks, Russians, and others. Civil society organizations (CSOs) in Turkmenistan are limited, consisting mostly of small groups focusing on poverty relief and delivery of professional services such as legal advice and accounting. Environmental NGOs are notably few, and those that do exist focus entirely on wildlife and natural areas, not sustainability or urban development. Nevertheless, the project will make concerted efforts to outreach to and engage CSOs, specifically under Component 3 for conducting nationwide campaigns on urban sustainability. The project would expand the scale and scope of such campaigns to cover promotion of energy-efficient behavior, waste management etc.

C. Gender Considerations. Are gender considerations taken into account? (yes ☒ /no ☐). If yes, briefly describe how gender considerations will be mainstreamed into project preparation, taken into account the differences, needs, roles and priorities of men and women.

The environmental and social benefits of sustainable cities will be equally felt by all citizens, men and women, young and old. Women may even disproportionately enjoy improvements in public transportation in Ashgabat, to the extent that at present, it seems clear that Turkmen men drive private vehicles much more than women do. Both men and women are widely employed in the tourist sector in Awaza. Adoption of green practices and management approaches will increase their skills and possibly increase opportunities for employment, insofar as human intelligence and labor would essentially replace fuel-intensive and water-intensive practices and equipment. And of course, all of Awaza's labor force stands to benefit from any increases in international good will and tourism resulting from promotion of Awaza as a green vacation destination.

D. Risks. Indicate risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the project design (table format acceptable):

Risk	Level	Mitigation measures
The benefits of reduced cooling from reduction of the heat island effect are offset by increased heating needs.	Low	The cooling season is longer than the heating season in Ashgabat, and is much more severe. In 2014, there were about 1680 Celsius degree-days for cooling (more than

		3000 Fahrenheit degree-days). Even though heating of buildings is universal and mechanical cooling is not, specialists strongly expect that research during the project period will confirm that any plausible reduction in average annual temperature will yield greater societal benefits in reduced cooling needs than costs in increased heating needs.
Measures for the greening of roofs and public spaces in Ashgabat by planting lead to unacceptable financial and environmental costs in terms of water consumption and ecosystem effects	Low	The possibility of unacceptable financial and environmental costs of green roofs and extensive green spaces in Ashgabat is real, but can be managed through advanced water-conservation planning and technical measures. Furthermore, the project could still achieve significant results by application of cool (high-albedo) roofs even if it is decided not to pursue green roofs at all.
Climate change causes changes in environmental and economic conditions, reducing the effectiveness of proposed activities	Low	An integrated approach to sustainability, as embodied in the planning and policy activities of Component 3, will help ensure that policies and technical solutions accurately reflect the realities of a changing (warming) climate in Turkmenistan. Several activities foreseen by the project – perhaps most notably the greening of Ashgabat public spaces to reduce cooling burdens and reduction of water consumption in Awaza hotels – can be considered not only as climate change mitigation steps, but as adaptation steps too.
Low oil prices and other factors lead to economic slowdowns in Russia and Central Asia, leading to reduced demand for tourism at Awaza, with corresponding complications in development there.	Moderate	Fluctuation in demand arising from various economic factors is a risk to tourism in all countries, including Turkmenistan. At Awaza, however, development is insulated from market fluctuations because the state budget is the source of almost all investment.
Delays in approval of specific budget commitments or in construction lead to delays in completion of demonstration/investment projects.	Moderate	<p>This risk is prevalent in demonstration projects in many countries, not only Turkmenistan. The risk will be mitigated by seeking written agreements at every step and by regular communication with key partners.</p> <p>The government's strong commitment to its social and economic development programs in Ashgabat and Awaza should significantly mitigate this risk from the outset. Given the number of hotels planned for Awaza, as well as the abundance of public lighting locations, alternatives to selected pilot spots should be available if needed.</p>

E.Coordination: Outline the coordination with other relevant GEF-financed and other initiatives:

This project will coincide partially with two other UNDP/GEF full-sized projects. The first project, which will end in the middle of 2017, is entitled *Improving Energy Efficiency in the Residential Building Sector of Turkmenistan* (commonly known as “the EERB project”). The national implementing partner of this project is the state concern Turkmengaz, with active participation by the Ministry of Construction, the Ministry of Communal Services, and

other national agencies. The EERB project is spearheading the revision of national building codes for increased energy efficiency. One aspect of these codes will be implementation of a certification and rating system for buildings. It is also currently completing a financial analysis of energy-efficient measures to be considered as targets for state investment for retrofit of existing buildings. Based on the findings of the analysis, an investment strategy will be proposed to the government in its further planning of building renovation, maintenance, and provision of utility services.

Though the revised building codes will be applicable to all buildings, the EERB project does not focus on hotels, nor commercial buildings in general. It does not emphasize design and construction of buildings that reflect energy efficiency beyond code requirements, with truly cutting-edge design or nearly carbon-neutral performance. The new building codes do address cooling, but focus on reducing thermal inefficiencies in the building itself, not reduction of ambient temperatures by means of high-albedo or green roofs. Therefore, the new project on sustainable cities is well poised to build upon the foundation laid by the EERB project, while charting truly new territory and avoiding redundancy in its work on buildings.

The second ongoing UNDP/GEF full-sized project, approved for GEF funding in May 2015, is entitled *Energy Efficiency and Renewable Energy for Sustainable Water Management in Turkmenistan* (commonly referred to as the “EE water project”). This project focuses on efficient irrigation, pump maintenance and replacement, and interdistrict water management, including both water supply and drainage. The national implementing partner is the Ministry of Water Economy, with support from many other agencies, including the Ministry of Agriculture, the Ministry of Energy, the Ministry of Economy, and the Ministry of Nature Protection of Turkmenistan.

This project includes one activity on municipal water supply, but does not directly include work in the city of Ashgabat nor in the tourist zone of Awaza. There is notable potential for synergy between the existing EE water project and the new project on sustainable cities, especially with regard to water conservation standards in Awaza and possible replication in other cities of Turkmenistan.

Coordination among projects in Turkmenistan involves not only framing the content of activities, but also tapping the expertise and relationships among project staff, UNDP country office management, and national partners. The new project will draw upon this experience and these connections, saving time and increasing the effectiveness of its work. (See the section below on knowledge management for further elaboration.)

The new project on sustainable cities will also draw upon technical solutions, management approaches, and other lessons learned from UNDP/GEF projects outside Turkmenistan. Projects of notable relevance include the City of Almaty Sustainable Transport project in Kazakhstan (2011-2016); the project on development of Nationally Appropriate Mitigation Actions (NAMAs) in low-carbon urban development in Kazakhstan (launched in spring 2015); the Green Urban Lighting project in Armenia (2013-2017); the Towards Carbon Neutral Tourism project in Montenegro (2013-2018). In addition, a new project on sustainable urban development in Bosnia and Herzegovina is now seeking GEF support for project preparation. Coordination between all these projects and the new project in Turkmenistan will be carried out directly between key project staff, and also through the UNDP Istanbul Regional Hub, which oversees all six projects. (Again, see the section below on knowledge management.)

F. Consistency with National Priorities: Is the project consistent with the National strategies and plans or reports and assessments under relevant conventions? (yes ☒ /no ☐). If yes, which ones and how: NAPAs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, etc.:

Turkmenistan is eligible for GEF funds because of its ratification of the UNFCCC and its status as a GEF member country. The proposed project is fully consistent with Turkmenistan's international positions and national strategies on climate change, as well as social and economic development. The project has been endorsed by the GEF Operational Focal Point for Turkmenistan, who also serves as the Head of the Environmental Protection Department of the Ministry of Nature Protection of Turkmenistan.

In 2012, the government adopted the National Climate Change Strategy (NCCS), which was developed with UNDP support. The NCCS is intended to give substance to Turkmenistan's commitments to both climate change mitigation and adaptation, while supporting the nation's continued economic growth through modernization, diversification, and strengthening global competitiveness.

The NCCS sets forth the following principles:

- Addressing climate change challenges should contribute to sustainable development of the country's economy.
- Promoting innovative technologies, transfer of technology, scientific and technological progress are the basis for advances in climate change mitigation and adaptation.
- Addressing climate change challenges shall be based on a comprehensive/integrated approach.
- Measures to reduce GHG emissions shall be coordinated with adaptation measures.
- The UNFCCC and associated decisions of the Conference of Parties reflect the common understanding of international community, including Turkmenistan.
- Combating climate change shall involve collective effort of all of Turkmen society.

Now the government of Turkmenistan, with active assistance from UNDP, is currently preparing plans to define action steps based on the broad principles of the NCCS. The main policy document defining climate-change mitigation actions will be a ***National Low Emission Development Plan (NLEDP)*** to reduce GHG emissions, with strengthened legislation and regulations for energy efficiency and the use of renewables, in line with international standards. The government is also preparing a ***National Adaptation Plan (NAP)*** with assistance from UNDP. This plan will define steps for the integration of disaster risk reduction and climate risk management practices in key sectoral policies and regulations.

The proposed new UNDP/GEF project will be designed specifically to be consistent with the principles of the NCCS, and to directly facilitate implementation of the NLEDP, as well as the NAP where applicable.

G. Knowledge management: Outline the knowledge management approach for the project, including, if any, plans for the project to learn from other relevant projects and initiatives, to assess and document in a user-friendly form, and share these experiences and expertise with relevant stakeholders.

As noted above, the proposed project follows upon ongoing UNDP/GEF projects on energy efficiency in buildings and in water management in Turkmenistan, as well as UNDP/GEF projects on sustainable urban transport in Almaty, low-carbon urban development in Kazakhstan and Bosnia and Herzegovina, sustainable tourism in Montenegro, and green urban lighting in Armenia. Knowledge-sharing will take place via regular electronic contact (correspondence and exchange of documents by email, as well as Skype calls) and, where possible, participation by project management in face-to-face meetings at the UNDP Istanbul Regional Hub or elsewhere.

At the global, regional, and national levels, UNDP is actively developing comprehensive communications strategies for all of its projects. These strategies include various forms of outreach via a diverse array of media, to different audiences – from news briefs posted on UNDP websites, to publication and dissemination of longer technical reports and studies of lessons learned, to placement of stories in national television and print media outlets in Turkmenistan, to participation in meetings and exhibitions, to use of social media where available. The new project on sustainable cities in Turkmenistan will employ all these forms of outreach. It is expected that the project will have a dedicated staff person or consultant responsible for communications and knowledge management, perhaps shared with other projects and the country office.


PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)

- A. Record of Endorsement⁹ of GEF Operational Focal Point (S) on Behalf of the Government(s):** (Please attach the [Operational Focal Point endorsement letter\(s\)](#) with this template. For SGP, use this [SGP OFP endorsement letter](#)).

NAME	POSITION	MINISTRY	DATE (MM/dd/yyyy)
Mr. Batyr Ballyyev	Head of Environmental Protection Department and GEF Operational Focal Point	Ministry of Nature Protection of Turkmenistan	June 13, 2015

B. GEF Agency(ies) Certification

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

Agency Coordinator, Agency Name	Signature	Date (Month, day, year)	Project Contact Person	Telephone	Email Address
Adriana Dinu UNDP – GEF Executive Coordinator		1 September 2015	Marina Olshanskaya, Regional Technical Advisor, EITT	+90 850 288 2609	marina.olshanskaya@undp.org

⁹ For regional and/or global projects in which participating countries are identified, OFP endorsement letters from these countries are required even though there may not be a STAR allocation associated with the project.

¹⁰ GEF policies encompass all managed trust funds, namely: GEFTF, LDCF, and SCCF