

Annual Project Progress Report

Project title:	"Sustainable Cities in Turkmenistan: Integrated Green Urban Development in Ashgabat and Avaza"
Award ID:	00081872
Project ID:	00091000
Implementing partner:	Ministry of Agriculture and Environment Protection of Turkmenistan
Period covered in this report:	January-December 2020
Date of last Annual Report:	31.12.2019
Date of the last Project Board meeting:	30.09.2020
Date of last Quality Assurance and rating:	

1. Project Performance

Please state the expected Output of the Project, set indicators and corresponding CP Outcome (as per project document/AWP):

<p>Project Output 1: Sustainable urban development in Ashgabat.</p> <p>Output indicators:</p> <p>1.1 Reduction by 3 percent (180 million passenger-km per year) of private car travels via increased use of alternative modes of transportation and carpooling</p> <p>1.2 Reduction of electricity consumption from public outdoor lighting by 1.5 million kWh per year in Ashgabat and 8 million kWh per year in whole Turkmenistan, compared to baseline</p> <p>1.3 Reduction in landfill waste in Ashgabat and Avaza relative to baseline of recycling and waste reduction programs. Increase in recycling volume by 10 percent and increase in use of secondary raw materials by 25%</p> <p>Output targets:</p> <p>1.1. Energy-efficient street lighting implemented in Ashgabat and technical justification prepared</p> <p>1.2. Sustainable urban transport solutions in Ashgabat developed and applied</p> <p>1.3. City plans for sustainable development is developed and approved</p> <p>1.4. Volumes of waste is reduced and recycling increases in Ashgabat</p> <p>b) Were the indicators and output achieved? Yes <input type="checkbox"/> No <input type="checkbox"/> Partially <input checked="" type="checkbox"/></p> <p>c) If no or partially, please explain why?</p> <p>1.1 The Ministry of Transport – which was as a project partner responsible for sharing information with the project on the public transport routes to be optimized (which was reorganized in January 2019 – 5 months after the Inception Workshop - into Agency "TurkmenAvtoTransport" subordinated to the newly created Ministry of Industry and Communication, and then again in February 2020 reorganized as a separate Agency) is not engaging with the project despite numerous open channels of engagement and communication.</p> <p>b) Were the indicators and output achieved? Yes <input type="checkbox"/> No <input type="checkbox"/> Partially <input checked="" type="checkbox"/></p>
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c) If no or partially, please explain why?

1.2 Cities project and the Ministry of Energy of Turkmenistan has begun joint work on the introduction of new energy efficiency technologies into the electric networks of Ashgabat city through the supply of energy-saving equipment. New transformers with a voltage of 10/0.4 kV in amount of 60 pcs by UNDP and 360 pcs by Ministry will be installed in the electric networks of power consumers of newly connected settlements of the city of Ashgabat. Construction and installation works are planned to be carried out by divisions of the Ministry of Energy, and at the expense of the saved funds, it is planned to purchase cable products for the reconstruction of distribution electric networks. As a result of these works, along with improving the reliability of power supply to consumers, technological costs of electric energy on distribution electric networks will also decrease. The result of such practical cooperation between UNDP and the Ministry of Energy will be the reduction of greenhouse gas emissions of more than 500,000 tons of CO₂.

As a result of cooperation with the Ministry of Energy, a draft of a new Law of Turkmenistan "On Energy Saving and Energy Efficiency" and number of regulatory legal acts aimed at introducing the new energy efficiency technologies into production were jointly developed. Concurrently, joint work is underway on development of draft regulatory legal and regulatory technical documents on energy efficiency. In addition, new draft Law of Turkmenistan on "Renewable Energy" was developed. Project jointly with Ministry of Energy developed the new National Strategy of Turkmenistan on Development of Renewable Energy which was approved by the President of Turkmenistan on 4 December 2020.

b) Were the indicators and output achieved? Yes No Partially

c) If no or partially, please explain why?

1.3 Project jointly with the Nature Protection Society of Turkmenistan (NGO) launched second campaign on waste collection and sorting among residents of Ashgabat city. This time, campaign includes not only collection and sorting of plastic waste but also it covers paper and glass. It needs to be noted that the residents of the city have been actively taking part in this campaign in daily basis. Moreover, normative-regulatory document to the Law of Turkmenistan "On Waste" is being developed. At present, project is in the process of determining the pilot site for waste recycling and sorting with the Municipality of Ashgabat city. Due to the COVID-19, country's internal flights were restricted and thus, activities related to waste in Avaza are halted. Development of several normative technical documentation and regulatory legal acts to the Law of Turkmenistan "On waste" have been started by the initiative and support by UNDP Cities project. In addition, it supports the development of the draft of new National Strategy of Turkmenistan on Waste Management as another step towards sustainability.

Project Output 2:

Sustainable Tourism Infrastructure and Management Practices in Avaza.

Output indicators

2.1 Improved capacities and enabling conditions in Avaza for integrated low-carbon and climate-resilient tourism development

2.2 Reduced GHG emissions and other negative environmental impact through interventions involving tourism facilities and infrastructure in Avaza.

Output targets:

2.1 Practice on reducing energy consumption, water use, and waste implemented by hotels in Avaza

2.2 Demonstration and replication of solar-powered public lighting

2.3 Optimally efficient surface transportation implemented in Avaza

2.4 Managerial and technical capacity of planners, officials, and facility managers in Avaza enhanced via training.

b) Were the indicators and output achieved? Yes No^x Partially

c) If no or partially, please explain why?

2.1 Avaza Touristic Zone is closed by the Government of Turkmenistan due to the COVID-19. Therefore, project is unable to get access to Avaza and implement its activities.

b) Were the indicators and output achieved? Yes No Partially

c) If no or partially, please explain why?

2.2 Regardless of restrictions in Avaza, project switched its some activities to Ashgabat. The project has identified pilot hotel for conducting energy audit in «Grand Turkmen» hotel in Ashgabat. Related works on energy audit are being conducted with the involvement of project international consultant on energy audit and national consultants.

Project Output 3:

State policy at Municipal and National levels.

Output indicators:

3.1. Spreading of experience and increasing the volume of first two components of the project on nationwide level via spreading of information, capacity building of establishments and managers as well as adopting state policy and legal normative acts

Output targets:

3.1 National policy developed and adopted in support of integrated and scaled-up "green" urban development practices.

3.2 National incentives and standards adopted for fuel efficiency of imported cars.

b) Were the indicators and output achieved? Yes No Partially

c) If no or partially, please explain why?

3.1 There were several articles published in various official and private newspaper, websites of the country. One of the prominent project activities that was highlighted by the government was the meeting of the Interdepartmental Working Group on the working out the National Strategy of Turkmenistan on the Development of Renewable Energy with the participation of project international and local specialists in a video conference format. Moreover, there are numerous articles on waste management regarding the second campaign on waste collection and sorting from population of Turkmenistan.

Lastly, it needs to be underlined that the project assisted in procurement of air and water contamination monitoring equipment for Ecological Control Service of the Ministry of Agriculture and Environment Protection of Turkmenistan.

2. Progress Reporting

Please summarize the main achievements during the project cycle:

Project Output 1:

1. Equipment for holding energy audit of streetlightening was procured.
2. Pilot site for holding energy audit of streetlightening was agreed by Ashgabat Municipality and Ministry of Energy.
3. Identification of the specification, procurement and installation on the pilot site for street lightening based on LED lamps with the installation of smart grid is underway.
4. Analysis of information, preparation of basis for replacement of old transformers in order to connect them to new street lightening power network in Ashgabat with the purpose of reduction of technical expenses for reduction of greenhouse gas emissions were completed.
5. Identification of specification is over, procurement and delivery of new transformers in order to connect them to the new street lightening smart grid in Ashgabat with the purpose of reduction of technical expenses for reduction of greenhouse gas emissions of the network is in the process.

6. Information analysis, determination of specification and procurement of pilot non-volatile lightening pillar (solar energy) for street lightening is underway.
7. Support in working out of the "Conception on development of power industry of Turkmenistan for 2021-2025" is underway.
8. Project developed draft law of Turkmenistan «On renewable energies»
9. Project developed draft law of Turkmenistan «On energy saving and energy efficiency»
10. New National Strategy of Turkmenistan "On renewable energies" has been developed by the project specialists jointly with international consultant and specialists of subdivisions of Ministry of Energy of Turkmenistan and adopted by Presidential Decree in December 2020.
11. Four normative-technical regulatory documents and normative-legal acts on renewable energies are being developed by the project specialists together with international consultant and specialists of subdivisions of Ministry of Energy of Turkmenistan.
12. 3rd meeting of Project Board (discussion of the project activity report for 2019 and review of the project plan for 2020) was held.
13. Project assists in realization of global initiatives on bicycle promotion (support in holding Bicycle Day, demand estimation on installation of pilot stations for bicycles)
14. Work of the project technical advisor on regulation aspects of sustainable development, gender and social issues is underway.
15. Project conducted control over the installation of laboratory equipment on monitoring the water contamination condition for Ecological Control Service of Ministry of Agriculture and Environment Protection (MAEP)
16. Project procured new laboratory equipment on monitoring the water contamination condition for laboratories of Ecological Control Service of Ashgabat, Caspian Ecological Control Service (Turkmenbashi city) and provincial Ecological subdivisions of MAEP.
17. Organization and holding of training on new laboratory equipment on monitoring the water contamination condition for specialists of laboratories of Ecological Control Service of Ashgabat, Caspian Ecological Control Service (Turkmenbashi city) and provincial Ecological subdivisions of MAEP.
18. Project is in process of procurement of new laboratory equipment on monitoring the land contamination condition for laboratories of Ecological Control Service of Ashgabat, Caspian Ecological Control Service (Turkmenbashi city) and provincial Ecological subdivisions of MAEP.
19. Organization and holding of training on new laboratory equipment on monitoring the land contamination condition for specialists of laboratories of Ecological Control Service of Ashgabat, Caspian Ecological Control Service (Turkmenbashi city) and provincial Ecological subdivisions of MAEP.
20. Procurement of chemical reagents and consumables on monitoring of ecological condition for Ecological Service Control of Ashgabat, Caspian Ecological Control Service (Turkmenbashi city) and provincial Ecological subdivisions of MAEP.
21. Project supports the development of Plan on realization of Paris Agreement on Climate Change: facilitate in development of draft of updated Nationally Determined Contributions (NDC-2) within the framework of Paris Agreement (including data analysis on mitigation and adaptation, consultations, indicator determination).
22. Development of Fourth National Communication of Turkmenistan on Climate Change for UN Framework Convention on Climate Change is being coordinated.
23. Preparatory work is undertaken on adoption of Kigali Amendment to Montreal Protocol on Ozone depleting substances.
24. Gradual introduction of new system of natural economic accounting, preparation of reviews and recommendations on improvement of ecological statistical reporting is being assisted.
25. Project supported in holding events dedicated to World Environment Day (5 June).
26. Project designed and supported the publication of wall and table calendars, organizers and etc. on the topic of ecology and sustainable urban development prepared by MAEP.
27. Ecological activities are held at the project pilot site in Ashgabat.
28. Development of range of draft normative-technical regulatory documents and normative-legal acts in waste management (waste classification and their certification, utilization, processing and recycling) is underway.

29. Project held Working Meeting (on national level) on discussion of possibility of development of National Strategy on Waste Management in Turkmenistan.(28 February 2020)
30. Support in development of draft of National Strategy on waste management is underway.

Project Output 2:

1. Specification is determined and procurement of equipment on holding complex energy audit in pilot hotel in Avaza is underway.
2. Hotel is selected for conducting comprehensive technical audit of energy and water consumption (tentative hotel in Avaza was chosen but later MFA of Turkmenistan agreed «Grand Turkmen» hotel in Ashgabat)
3. Draft of "Regulation on rules and instruction of conducting energy audit at residential and public buildings is being developed.
4. Justification and support of activities on energy-saving and energy management (solar energy and battery application for street lightening) in Avaza is being prepared.
5. Analysis and evaluation of potential usage and development of solar-powered charging stations for electric vehicles in Avaza are being conducted.
6. Justification on procurement and installation of pilot charging solar stations for electric vehicles in Avaza is being prepared.
7. Technical training on technical aspects of holding energy audit in hotels is planned.

Project Output 3:

1. Review practices on sustainable urban development and their promotion is being conducted.
2. Development of normative-technical documents and normative-legal acts on stimulation of sustainable urban development (construction, "green standards" and etc.) has started.

Press releases on project activities posted in 2020:

1. <https://www.tm.undp.org/content/turkmenistan/en/home/presscenter/pressreleases/2020/UNDP-and-partners-improve-environmental-monitoring-systems-in-Ashgabat.html>
2. <https://turkmenportal.com/blog/24715/proekt-ustoichivye-goroda-v-turkmenistane-nacelen-na-ekologicheskuyu-stabilnost>
3. <https://orient.tm/atmosfernyj-monitoring-na-strazhe-ekologicheskoy-bezopasnosti-ashhabada/>
4. <http://www.newscentralasia.net/2020/12/02/turkmenistan-expands-the-international-cooperation-through-the-environmental-diplomacy/>
5. <https://www.tm.undp.org/content/turkmenistan/en/home/presscenter/pressreleases/2020/UNDP-and-the-Government-of-Turkmenistan-deepen-cooperation-launching-new-projects.html>
6. <https://orient.tm/en/the-strategic-partnership-between-undp-and-turkmenistan-has-been-reinforced-by-new-documents/>
7. <https://orient.tm/ustoichivye-goroda-territoriya-budushhego/>
8. <https://turkmenportal.com/compositions/969>
9. <https://orient.tm/proon-aktivno-uchastvuet-v-razvitii-vozobnovlyaemoj-energetiki-v-turkmenistane/>
10. <https://www.mfa.gov.tm/en/news/2135>
11. <http://turkmenistan.gov.tm/?id=21360>

12. <https://orient.tm/proon-aktivno-uchastvuet-v-razvitii-vozobnovlyaemoj-energetiki-v-turkmenistane/>
13. <https://www.mfa.gov.tm/ru/news/2135>
14. <https://www.tm.undp.org/content/turkmenistan/en/home/blog/sustainable-cities-territory-of-the-future.html>
15. <http://ashgabat.in/2020/10/31/ustojchivye-goroda-territoriya-budushhego/>
16. <https://turkmenportal.com/blog/26460/v-ashhabade-i-ahalskom-velayate-ustanovili-konteynery-dlya-plastikovyh-othodov>
17. <https://turkmenportal.com/blog/29153/ashgabat-residents-welcome-the-clean-cities-project-and-provide-all-possible-assistance>
18. <https://www.tm.undp.org/content/turkmenistan/en/home/blog/Who-recycles-what-in-Turkmenistan.html>
19. <https://www.tm.undp.org/content/turkmenistan/en/home/presscenter/pressreleases/2020/UNDP-and-Ministry-of-Agriculture-and-Environmental-Protection-of-Turkmenistan-held-a-working-meeting-to-develop-a-draft-National-Strategy-for-Waste-Management.html>
20. <https://www.mfa.gov.tm/ru/news/2296>
21. <https://turkmenportal.com/blog/31743/v-turkmenistane-sostoyalos-pervoe-zasedanie-mezhotraslevoi-komissii-po-voprosam-ohrany-okruzhayushchei-sredy>
22. <https://russia.tmbassay.gov.tm/ru/news/68369>
23. <https://tdh.gov.tm/news/articles.aspx&article24775&cat11>
24. <https://www.tm.undp.org/content/turkmenistan/en/home/stories/Plastic-Waste-Management-First-Step-Towards-Integrated-Urban-Development.html>
25. <http://www.metbugat.gov.tm/blog?id=1239>
26. <http://www.metbugat.gov.tm/blog?id=1211>

3. Project Risks and Issues

The project Risk Log is maintained throughout the project implementation to capture potential risks to the project and associated measures to mitigate risk. The Project Manager shall maintain and update the Risk Log and ensure that risks are identified, communicated and managed effectively.

A number of potential risks are listed below.

Description of risk	Type and category	Risk management actions	Current situation
Failure of co-financing	FINANCIAL	The Project has already secured commitment of the Ministry of Energy and Ashgabat city authorities on co-investment into street lighting retrofits and smart city infrastructure (upgraded mid-voltage electricity network transformers).	

		<p>The planned transformer upgrades have already attracted more than \$2 mln of public co-financing for 360 transformers following the Project Team's recommendations. This activity will yield more than 5% of the CO2 emissions reduction target by the end of 2020. Together with the pilot project, this activity will help the project deliver more than 290,000 tons of CO2 emissions reductions (80% of the target) by the end of the Project. The Project Team will continue to work with the government for a continued co-financing of this activity for its scale-up to achieve all of the target emissions reductions from this measure alone. The current estimates indicate that in case all of planned co-financing is committed by the government, the project will exceed the CO2 emissions target by a margin of 70%.</p> <p>The Project currently seeking engagement of the government on the transport and waste recycling issues and other project activities still in process and thus, delay is expected in this direction due to precautions taken by the government because of COVID-19.</p> <p>The Project is also engaging the EBRD in the region to understand whether the bank can lend to willing municipalities or national ministries (e.g. to the Ministry of Energy that owns several street lighting systems and other energy consuming assets across the country).</p>	
Project activities aren't viewed as a top-priority by the government.	POLITICAL	<p>Feasibility studies for smart grid upgrades in municipal utilities and the national grid monopoly will articulate benefits of the scale-up activities to boosting export revenue (via increased electricity sales) and will seek solutions with a relatively acceptable pay-back period.</p> <p>This will win the attention of the top decision-maker.</p>	
Data and information risk	REGULATORY	<p>The Project has ensured that no sensitive data is requested by the transport monitors and that a replacement city (such as Turkmenbashi, which includes Avaza in its city limits) is identified early on to carry out the required transport optimization activities. However, the Project team has observed that neither these precautions nor additional pressure applied by the heads of the UNDP and UN offices is able to make transport sustainability a key priority for the city authorities. Congestion in the city is absent and fuel costs are near zero for the city bus company, which makes it difficult to obtain any commitments from the city to consider the matter. In case this attitude doesn't change, the</p>	

		Project will in the current environment replace this component with more activities on the smart grid issue with city water utility company where the Project is planning to do energy audits of selected facilities in H1 2021.	
Hiring of project staff and international energy auditors is delayed.	OPERATIONAL	Due to pandemic COVID-19 and considering the world-wide restriction of transportations of all kind, holding energy audit with the participation of international consultant on energy audit will highly likely delay in realization which slows down the implementation of project activities related to Avaza. However, project has been holding energy audit in pilot hotel in Ashgabat. Removal of restrictions in transportation will enable the start of the realization of project activities in second component of the project	
The effect of COVID-19 Global Pandemic	OTHER	With the global spread of the COVID-19 all around the world, Government imposed precautions measure by limiting the passenger transportation within the country. Avaza Touristic Zone was closed for indefinite time since June 2020 where project planned to hold energy audit at pilot hotel in Avaza. Moreover, project discussed the possibility of installing solar panels and garbage bins nearby pilot hotel. All beforementioned activities was frozen after abovementioned measures were taken by the Government. Project started to look and search for alternative ways to realize the activities planned in Component 2. Project decided to shift its activities in Avaza to Ashgabat city and successfully implemented energy audit in Grand Turkmen Hotel in Ashgabat. By doing so, project will be able to further implement its crucial activities in ashgabat.	

4. Lessons learned and follow-up steps (if applicable)

a) Please provide the lessons learned and further steps after the project's closure.

N/A

5. Transfer of Assets or other related matter

a) Please state on any past or future transfer of assets made within the project cycle (Attach list of equipment, cooperation frameworks with beneficiaries, etc.)

6. Financial management

Budget item	Total approved in 2020 (in USD)	Expenses + commitments	Budget utilization in % to planned
Component 1	1,206,500	1,182,820.45	98.04 %
Component 2	371,870	365,006.30	98.15 %
Component 3	42,397	35,817.68	84.48 %
Activity 4	5,500	5,461.05	99.29%
Project management	73,577	43,373.14	58.95 %
Total delivery in 2020	1,694,344	1,632,478.62	96.35 %
In % to total project budget	27,96%	26,94%	

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Date: