

United Nations Development Programme

Country: Turkmenistan

Annual Work Plan 2018



Project Title:	Energy Efficiency and Renewable Energy for Sustainable Water Management in Turkmenistan
UN PFD Outcome(s):	<p>Outcome 5: The national policy, legislative and institutional frameworks are aligned to reduce greenhouse gas emissions through promoting sustainable practices on energy efficiency, the use of renewables, urban development and waste management.</p> <p>Outcome 6: The national policy, legislative and institutional frameworks are responsive to climate change issues by promoting climate resilience, adaptation, climate risk management and disaster risk reduction measures at sector and community levels.</p>
Expected CP Outcome Indicator(s):	<p>5.1. Number of current and new institutions that research, pilot and replicate energy efficiency initiatives for sustainable rural and urban development, and the use of renewables, urban development and waste management practices</p> <p>5.2. Number of state laws, regulations and procedures developed or amended that incorporate energy efficiency standards and practices, and the use of renewables and sustainable waste management</p> <p>6.1. Availability of solutions developed and implemented at national and subnational levels for climate change adaptation, sustainable management of natural resources and ecosystem services, as part of NAP</p> <p>6.2. Strategic Plan indicator: 1.5.Hectares of land that are managed sustainably under a conservation, sustainable use or access and benefits-sharing regime</p>
Expected Output(s):	<p>Output 5.1: Institutions and mechanisms are in place and clear on their roles in relation to coordinating, and managing the implementation of NEPAAM and promoting sustainable energy efficiency initiatives and the use of renewables.</p> <p>Output 5.2: Laws, regulations and procedures adopted that incorporate energy efficiency standards and the use of renewables</p> <p>Output 6.1: New and innovative solutions developed and piloted at national and subnational levels for climate change adaptation, sustainable land, water, coastal management and ecosystem services, and safe waste disposal as part of NEPAAM</p> <p>Output 6.2: Institutional capacities are strengthened at subnational level in adaptation/CRM planning and implementation , to promote stronger local livelihoods through sustainable use of water, land, biodiversity and coastal areas</p>
Implementing partner:	Ministry of Agriculture and Water Economy of Turkmenistan
Responsible Parties:	Ministry of Agriculture and Water Economy Ministry of Energy State Committee for Environment Protection and Land Resources Akhal Province Administration Turkmen Agricultural University named after S.A. Niyazov Water Research and Design Institute "Turkmensuvlymtaslama"

Brief Description

The proposed UNDP-GEF project will reduce greenhouse gas emissions associated with water management, prevent and remediate salinization of lands by improving water management and reducing water consumption in the agriculture and water sector of Turkmenistan. Through technology transfer, investment, and policy reform, this project will seek to promote an integrated approach to water management that is energy and water efficient, reduces root causes of land degradation, and enhances local livelihoods and public service delivery.

Programme period:	Country Programme 2016-2020	Total allocated resources:	\$1,684,405.00
Project Title:	Improving Energy Efficiency in the residential Building Sector of Turkmenistan	• UNDP	\$17,000.00
		• GEF	\$1,667,405.00
Start date:	<u>01/01/2018</u>		
End date:	<u>31/12/2018</u>		

Agreed: _____



Ministry of Agriculture and Water Economy of Turkmenistan

Date: _____

12/04/2018

Agreed: _____



UNDP in Turkmenistan

Date: _____

1/3/18

c	Transfer of a tractor to the ownership of the Institute "Turkmenusulyntaslama" MAWE with the condition of exploitation only at the research site in Gokdepe							Institute "Turkmenusulyntaslama" MAWE and UNDP																														\$10,028.57
d	Preparation of the TOR for the national consultant - Field Hydrotechnician, announcement and recruitment for work at the research site							Project specialist in agriculture, PM and UNDP																														\$12,257.14
e	Prepare the TOR for the foreman-manager of the research site 6.2 hectares, the announcement and recruitment							PM and UNDP																														\$15,428.57
f	Preparation of the TOR for the security guard - the operator of the pumping station, the announcement and hiring of 2 guards - operators of pumping stations for the research site							Project specialist in agriculture, PM and UNDP																														\$7,714.29
g	Preparation of a TOR for a watchman-gardener for a research site, announcement and recruitment							Project specialist in agriculture, PM and UNDP																														\$1,715.00
h	Manufacturing and installation of a street information banner (2 x 3 m) on the research site							Project specialist in agriculture, PM and UNDP																														\$500.00
a	Analysis of data collected during the audit of the technical condition and energy efficiency of the MAWE pumps and discussion with the specialists of the Ministry the technical parts of the replaceable pumps.							IC and NC hydraulic pump mechanics engineers																														\$200,000.00
b	Development of a plan to replace or repair the most outdated and inefficient pumps for energy consumption, used in the inter-farm channels of the MAWE together with national partners.							NC on replacement and repair of electric and diesel pumps, water specialist																														\$571.43
c	Preparation of detailed TOR for the international tender (ITB) for the replacement and repair of electric and diesel pumps. Holding a tender and choosing the winner.							NC on replacement and repair of electric and diesel pumps, water specialist, PM, UNDP																														\$200,000.00
d	Creation of infographic material on the conducted audit, replacement and repair of pumps used in inter-farm channels of the MAWE							UNDP Communication Officer, PM, PA, Project Specialists																														\$571.43
1.3.1:	Pilot project on the use of solar energy for pumping and water purification in remote pastures																																					
a	Analysis of previously collected materials to make a final decision on the location of solar panels for generating electricity for pumping and cleaning water from wells.							Project team, UNDP																														
b	Preparation of TOR for the national consultant - hydraulic engineer-electrician for the design and installation of solar panels. Announcement, selection and signing of a contract							PM, Water Specialist, UNDP																														

b	Implementation of a study trip abroad for 3 MAWE specialists and project specialists to Denmark and Hungary in cooperation with Grundfos to study best practices in the selection, monitoring, operation and maintenance of pumps and pumping equipment (50% of the budget from the 4th component)	UNDP, MAWE and Grundfos Company	71600-Travel	\$7,500.00
c	Preparation of a report and presentation on the results of the study tour, lessons learned and recommendations on modern practices for effective monitoring, maintenance and operation of pumps that can potentially be used in Turkmenistan	PM, Project specialists and participants of the trip		
d	Conducting a workshop for a wide range of water sector specialists to present and discuss the results of the study tour and recommendations	PM, Project specialists and participants of the trip	75700-Workshops and meetings	\$500.00
e	Conducting in each velayat one training seminar on monitoring and assessment of reclamation state of irrigated lands with arrangement of 5 observation wells with instrumentation for MAWE specialists	NC on scientific issues, Project specialists, UNDP, MAWE	75700-Workshops and meetings	\$1,500.00
f	Conducting in each velayat one training seminar on water accounting in irrigation canals with arrangement of 5 water measuring equipment for specialists of MAWE	NC on scientific issues, Project specialists, UNDP, MAWE	75700-Workshops and meetings	\$1,500.00
g	Conducting in each velayat one training seminar on monitoring, maintenance and operation of pumping stations on inter-farm irrigation systems for MAWE specialists jointly with the local office of Grundfos in Turkmenistan	NC on scientific issues, Project specialists, UNDP, MAWE and other national partners	75700-Workshops and meetings	\$1,500.00
h	Visits to velayats for the organization and holding of seminars on monitoring and assessment of the meliorative state of irrigated lands and maintenance and operation of pumping stations on inter-farm irrigation systems	NC on scientific issues, Project specialists, UNDP, MAWE and other national partners	71600-Travel	\$1,000.00
3.3.1: Estimation and accounting of emissions and reductions of greenhouse gases as a result of implementation of pilot projects				
a	Development of a ToR and recruitment of an international consultant on GHG Emissions to determine the GHG emissions as a result of project activities within the pilot projects	PM, UNDP	71200-International consultants	\$20,250.00
b	Regular monitoring of GHG emissions and recording changes as a result of pilot projects based on the monitoring methodology and plan developed by international expert. Preparation of a report on greenhouse gas reductions and other parameters required by the GEF and electronic reporting of all PIR-GEF requirements.	IC on GHG emissions, project specialists and consultants		
c	Collect and summarize all the collected data on greenhouse gas emissions at pilot project sites. Assessment and analysis of baseline conditions and determination of greenhouse gas emission levels in pilot sites / projects. Also conduct seminar for national partners incl. MAWE, Nature Protection Committee, Ministry of Power Generation and others to present results of analysis of greenhouse gas emission levels	IC on GHG emissions, project specialists and consultants		
d	Development of TOR for an international consultant for the mid-term evaluation of the project. Announcement and selecting an expert	PM, UNDP		
e	Conducting mid-term evaluation of the project.	IC on the mid-term evaluation of the project, PM, Project specialists, UNDP	71200-International consultants	\$22,300.00
f	Print-out of materials, brochures and manuals	PM, UNDP	74200-Communication and publications	\$3,000.00
g	PM, Project specialists, Project Assistants, Driver / Clerk	UNDP	71400-Service contracts	\$5,100.00
h	Project vehicle maintenance	UNDP	71600-Travel	\$500.00
i	Charges for internet, telephone, mobile communication, banking, as well as rental and internet services of UNDP	PM, UNDP	74200-Communication and publications	\$500.00
				\$162,581

71200-International consultants	\$10,000
71300-National consultants	\$45,458
71400-Service contracts	\$25,600
71600-Trips	\$11,000
72100-Contractual technical services	\$9,312
74200-Communication and publications	\$1,500
75700-Workshops and meetings	\$2,600
Total GEF	\$106,470

Outcome 4:

National policy and regulatory framework established for the integrated water resources management

EXPECTED INTERIM RESULTS	PLANNED ACTIVITIES	4.1.1: Assessment of existing standards and technical specifications for the operation and maintenance of pumps												Budget Code	Ammount				
		January	February	March	April	May	June	July	August	September	October	November	December						
Output 4.1: New Standards and regulations on the specifications and maintenance of pumps developed and granted for adoption	a	Extension of contracts of 3 national consultants (a lawyer and 2 hydraulic engineers) on the development of norms and technical rules for the operation of irrigation infrastructure																71300-National consultants	\$7,658.00
	b	Development of norms and technical regulations for the operation (1) of collector-drainage (2) irrigation networks and (3) pumping stations, and (4) Regulations on the implementation of preventive maintenance of water management systems and facilities in Turkmenistan																National consultants	
	c	Working meeting to discuss the developed norms, rules, standards and provisions with the MAWE, the Institute "Turkmenawjylytiasama" and other interested parties and the coordination of the adoption of by-laws of the MAWE																Project Team, UNDP, National Consultants, MAWE	\$300.00
	d	Preparation of TOR for 2 hydraulic engineers to develop regulations, procedures and technical rules for the operation of irrigation infrastructure. Announcement, selection and signing of contracts																PM, UNDP	\$14,285.71
	e	Development of regulations, procedures and technical regulations in accordance with the Water Code of Turkmenistan, namely (1) On land allocation zones, (2) On monitoring and assessment of the meliorative state of irrigated lands, (3) On the use of drainage water for irrigation of crops and (4) On use of treated wastewater for irrigation of technical, fodder crops and green (forest) plantings.																National consultants	
	f	Working meeting to discuss the developed regulations, procedures and technical regulations with MAWE, the Institute of "Turkmenawjylytiasama" and other interested parties and agree on the adoption of these norms and rules of the MAWE																Project Team, UNDP, National Consultants	\$300.00
	g	Summing up the results of an audit of the technical condition of pumps by national consultants and discussion with the MAWE experts of the issues of interest to improve the energy efficiency of pumps (V. Babeev and D. Kurbanbaev)																NC hydraulic engineers-mechanics for pumps	\$15,514.08
	h	Analysis of data collected during an audit of the technical condition of pumps by an international consultant and recommendations to national partners to improve the energy efficiency of pumps (Grundfos Kazakhstan)																NC hydraulic engineers-mechanics for pumps	\$7,800.00
	i	Preparation of the TOR for the national consultant - electrical hydroengineer and diesel pumps. Announcement, selection and signing of a contract																PM, Specialist on water issues, UNDP	\$2,857.14
	j	Development of a TOR for national consultant for preparation of design estimates for the announcement of a tender for the replacement and repair of selected pumps.																NC on replacement and repair of electric and diesel pumps, IC and hydraulic mechanical engineers for pumps. Specialist on water issues	\$4,712.00
	k	Preparation of TOR for recruitment of 2 national consultants - electrical hydroengineer and hydraulic mechanical engineer for the analysis of working capacity of replaced and repaired pumps. Announcement, selection and signing of a contract																PM, Specialist on water issues, UNDP	\$2,857.14
	l	Preparation of the TOR for hiring an international consultant or company to analyze the efficiency of replaced and repaired pumps. Announcement, selection and signing of a contract																PM, Specialist on water issues, UNDP	\$2,200.00
	m	Trips to the velayats to assess the technical condition and energy efficiency of replaced pumps used in inter-farm canals. Agreement of the travel program with national partners																Project team and consultants - IC и NC	\$1,000.00
	n	Implementation of a study trip abroad for 3 MAWE specialists and project specialists to Denmark and Hungary in cooperation with Grundfos to study best practices in the selection, monitoring, operation and maintenance of pumps and pumping equipment (50% of the budget from the 4th component)																UNDP, MAWE and Grundfos company	\$7,500.00
	o	Study of experience and practice of norms and technical requirements for energy efficiency and operation of pumps used in developed countries and preparation of proposals and relevant recommendations on improvement of national norms and requirements in this field																Project team	

p	Regular field trips (including velayats with partner representatives) to measure and record water costs (and for preliminary review and evaluation of the various types of pumps used by the MAWE in the velayats) to assess the impact of project activities on water and energy savings																									
4.2.1:	Development of best practices in regulating the measurement of water consumption and the application of water tariffs in relation to the soil and climatic conditions of Turkmenistan																									
a	Regular field trips (including to velayats and partner representatives) to measure and record water costs for systematization of water accounting in irrigation systems and to assess the impact of project activities on water and energy savings																									
b	Organization with the participation of MAWE experts and project specialists of the round table to discuss with partners the issues of creating a Strategic Framework and a Program for measuring water consumption, monitoring energy consumption in the water sector and moving to tariffs for final water use. Decision on the development of the "Procedure for calculating tariffs for water supply services to water users" in accordance with the Water Code of Turkmenistan.																									
c	To determine the needs for irrigation water for land users, to develop a methodology for compiling "intra-economic water use plans" with traditional and water-saving irrigation technologies in accordance with the Water Code of Turkmenistan.																									
d	To determine the requirements for irrigation water in etraps and basin districts, develop a methodology for development of water use plans for irrigation systems in accordance with the Water Code of Turkmenistan.																									
e	Development of a TOR for a national consultant on accounting for water consumption in internal and inter-farm irrigation systems. Announcement, selection and hiring of a specialist.																									
f	Development and installation of control and measuring equipment for water accounting at on-farm and inter-farm irrigation canals.																									
g	Consultations with stakeholders and project partners on mechanisms for implementing recommendations on administrative reform																									
h	Printout of materials, brochures and manuals																									
i	PM, Project specialists, Project Assistants, Driver / Clerk																									
j	Project vehicle maintenance																									
k	Charges for internet, telephone, mobile communication, banking, as well as rental and internet services of UNDP																									
4.3.1:	Support to MAWE and other ministries and departments in the development of the Water Development Program of Turkmenistan for 2018-2030																									
4.3:	The political structure and the framework of public funding for the widespread deployment of improved irrigation efficiency and water infrastructure are adopted and implemented																									
a	Advising the MAWE and other ministries and agencies of Turkmenistan on the rational use of water resources, modern irrigation methods taking into account the natural and climatic conditions of the country, advanced technologies for rational water use, improving land reclamation and other issues of improving the national water sector in the long term.																									

Outcome 5: Project Management

PM, Project Assistant, Driver/Clerk, Project Implementation Unit (PIU)																																																			</
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