Turkmenistan introduced innovative technologies for sustainable water management in the farming system

Ashgabat, 4 July 2014 – A series of adaptation measures to the climate change have been introduced aiming to strengthening the sustainability of water management and rational use of water resources in Turkmenistan, within the framework of project on “Addressing climate change risks to farming system in Turkmenistan, at the national and local levels”, implemented by the Ministry of Nature Protection of Turkmenistan jointly with the United Nations Development Programme (UNDP) and Adaptation Fund (AF).

In three pilot areas representing typical agro-ecological regions – mountains (project region Nohur in Ahal velayat), deserts (project region Karakum in Ahal velayat) and oasis - irrigated area (project region Sakarchaga in Mary velayat), various hydraulic structures and adaptation measures were planned through consultations with communities involved in irrigated agriculture productions or husbandry of livestock in desert pastures.

Furthermore, a number of hydraulic structures which are necessary for the sustainable development of communities will be constructed by local Turkmenistan companies. Traditional methods of local water collection and storage of rainfall and mudflows were utilized in designing the works with the purpose to fully meet the needs of the local people for drinking water, as well as create opportunities for practicing a small-oasis agriculture and animal husbandry.

In the mountainous region of Nohur, the project will renovate the system of the existing water springs. Once completed, sustainable drinking water will be provided for the local population.

In the desert areas (project region Karakum in Ahal velayat) cleaning of takyr surfaces from overgrowing and clogging will be done with part of these activities will be carried out directly by the local communities themselves.

In the areas of irrigated agriculture in Sakarchaga pilot region the project commenced the works for the installation of water controlling and regulating structures. As a result, proportional distribution of irrigation water to water users will be enabled with improved...
water usage efficiency. Meanwhile, Actions will be taken to combat degradation of the natural mountain watersheds by way of increasing the forestry areas.

In Turkmenistan, the local oasis areas have a wide-set of networks of irrigation canals and drainage systems. However, these networks have a low level of technical capacity which leads to a large water loss during irrigation of agricultural crops. As a result, it accelerates the secondary salinization processes and contributes to waterlogging of the irrigated agricultural lands. The MNP/UMDP/AF project will support a comprehensive reconstruction of drainage systems, construction and repair of water regulation structures, promote layout of irrigated land fields using a laser leveling equipment, and assist in reclamation of wastelands in the irrigated area such as Sakarchaga region. Innovative technologies of modernization of water infrastructures adapted to the local environmental context of Turkmenistan will be demonstrated under the project for future scaling up.

In addition, international best-practices in water resource management at community level were also piloted under the project. The project has already successfully conducted a series of trainings on Water User Associations and Water User Groups water management principles and best-practices to improve local farming organizational practices. The project is also actively involved in legislation drafting processes in the field of strengthening sustainable management of water resources in light of Turkmenistan’s commitments under the United Nations Economic Commission for Europe (UNECE) Water Convention.

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