

Increasing agricultural productivity through sustainable water resource management:

Cases of Havaskor and Koktash Water Users' Association in Tajikistan

OUTCOME STORIES

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BACKGROUND

Tajikistan, a landlocked country in Central Asia, continues to transform its agriculture sector that has sustained a significant portion of its rural population. High incidence of poverty and food insecurity persist in the rural areas. The agriculture sector has unique challenges despite the fact that majority rely on it for their livelihoods. Only about 830,000 hectares are suitable for growing crops, with majority of the farms heavily relying on irrigation. Farmers have been struggling with the high cost of farm inputs, lack of access to productive resources and finance, weather-related hazards, trade shocks, and unstable prices of export crops.

To address the multiple challenges, the government developed and implemented the Agriculture Reform Program for 2012–2020. To complement existing initiatives, the Global Agriculture and Food Security Program supported the second phase of the Public Employment for Sustainable Agriculture and Water Resources Management Project from 2013 to 2020. It aimed at improving food security through temporary employment creation, increasing crop production and farm income through improved irrigation services, and improving water resource management.

PROJECT ACTIVITIES

PAMP II is within a broader program of the Government of Tajikistan that strives to develop an efficient and sustainable water resource management system and to deliver enhanced irrigation services to farmers. It capitalized on the Phase I (Public Employment for Sustainable Agriculture and Water Management) that was implemented from 2010 to 2011, in five food insecure districts of Khatlon. PAMP II covered additional 12 districts in Khatlon and DRS that are resource-poor and food insecure but with good agriculture potential. The program focused on public works program that renovated drainage and irrigation infrastructures, while also providing temporary employment to families. In addition, it also supported the establishments and strengthening of Water Users' Associations (WUAs) that are responsible in managing the irrigation schemes.

The project had 3 components. Component one comprised of public works and rehabilitation of irrigation and drainage infrastructure that facilitated the manual cleaning of secondary and tertiary canals and provided temporary employment. Mechanized cleaning works were also done for larger canals and rehabilitation and construction of hydraulic infrastructure. Moreover, the project also did emergency works that restored a flood channel in the city of Kulob.

Component 2 focused on assistance in water resources management that provided technical assistance to relevant institutions that are instrumental in supporting the reform of water resource management. Technical assistance were provided at the national level on the implementation of Integrated Water Resource Management (IWRM). Component 3 dealt with project management that supported the Project Management Unit in all aspects of project implementation.

OUTCOMES

Significant results were achieved as part of the ongoing water sector reform. The project has contributed to the food security of low-income rural farmers through improved access to water and employment opportunities. A total of 130 Water Users' Associations were strengthened and formed resulting to improved management of irrigation and drainage infrastructures. With well-equipped water users' associations, smallholder farmers can address their challenges collectively and in an efficient manner.



Havaskor WUA in Qabodiyon District

Qabodiyon District, located about 185 km from Dushanbe, have been benefitting from the project accomplishments. Qabodiyon district is very dry and has hot temperature. However, about 90% of income comes from farming that is heavily reliant on irrigation water.

Farmers in Qabodiyon are now able to grow crops in 2 cycles. Before 2013, members of the Havaskor Water Users' Association were constantly confronted with the challenge of insufficient water supply because their group is the last recipient of the water from the irrigation. However, this is no longer the case. With water coming from the Kofarnihon River Basin, the project supported the rehabilitation of irrigation canals and distribution channels. Water management systems and the improved and cashless billing and payment systems are now in place. Moreover, water volume check and distribution requests can be done electronically. These systems were beneficial, especially during the pandemic. Previously, farmers need to wait for several hours in the distribution gates.

When the pandemic began in 2020, planting was delayed because farmers had difficulties obtaining good quality seeds on time. But with sufficient irrigation water, farmers were still able to have a good harvest and were able to sell their crops in the market. Recently, the dam was damaged but with reserve funds from the association's account, it was reconstructed immediately.

With better water management systems in place and with strong associations, farmers are now able to address their challenges and are now in a better position to "build back better".

Koktash Water Users' Association in Rudaki district

Koktash WUA was created in 2005. With the project, the association was reorganized and strengthened with support from a Civil Society Organization partner, The Source of Life. The project conducted inventories and assessments irrigation of irrigation canals and drainage system and has equipped members to manage the systems and infrastructures that were put in place.

Farmers used to grow a limited number of crops such as wheat and alfalfa. But with good water supply, they are now growing a variety of crops in every season such as beans, potato, tomato, radish, maize, and wheat among others.

With the project interventions and with better systems now in place, multiple outcomes were achieved by the group. These include the following:

- The number of members increased to 321 in 2019.
- Irrigation and drainage systems and management were improved.
- Membership fees increased from from 30 somoni per hectare in 2014 to 50 somoni in 2019.
- The number of dehkan farms headed by women in 2014 increased from 15 to 52 in 2019.

Koktash water user's association continues to serve its members with an improved water management system. With more and more farmers' associations having improved water management systems, farms will be productive, the harvest will grow, income will grow and communities will be food secure.

References:

World Bank Implementation Completion & Results Report (2020)

