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## Strengthening Water Management Institutions in Uzbekistan

### Summary

*This paper points out institutional deficiencies of water management in Uzbekistan and suggests key improvements at the organizational, institutional and policy levels of the irrigation system.*

### Background

A socio-technical analysis was conducted in five Water User Associations (WUAs) as part of the ZEF-UNESCO project on Sustainable Management of Land and Water Resources in Khorezm/Uzbekistan, focusing on the effects that the drought of 2008 had on water management practices. We understand water management as a socio-political process which equally emphasizes the importance of technical hardware and human behavior. This study has been instrumental in understanding the challenges of future water scarcity as well as the potential of the grass-root level for generating positive changes in water management.



Grass-root level involvement is indispensable for an effective water management

### Challenges of Water Management

The land reform process in Uzbekistan initiated in the 1990s directly affected the irrigation water management structures. The state water management organizations, formerly mandated to deliver water to a few collective farms, suddenly had to deal with a multitude of individual farms, a host of diversified cropping patterns and varying agronomic and water management practices. This resulted in an incompatibility between the new agricultural set-up and old institutional arrangements, organizations, rules, laws and water management practices. This situation led to growing deficiencies in water allocation and distribution - especially towards the tail end of the irrigation systems, causing frequent crop failures, increased soil salinity, desertification, the drying of lakes, and a decline in biodiversity. While the ongoing efforts of the Government of Uzbekistan to re-consolidate the land into



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farms with plots of a minimum of 80 to 100ha might actually ease water distribution among large cotton and wheat growing farmers, the water rights of small landholders and non-agricultural water users are uncertain.

## Water Users and Water Managers

In 1999, the Government of Uzbekistan issued a decree on the organization of Water User Associations (WUAs) to fill the vacuum in water management within the framework of the former shirkats (collective farms). While water managers at WUA level are officially accountable to the farmers and are geared towards creating more room for collective action, they are still regarded by many farmers as the extended arm of the state apparatus. Moreover, WUAs lack the technical means to implement their daily functions effectively. Nevertheless, water management within a WUA is remarkably different from water management within former collective farms. WUAs are in a dynamic state of institutional development and could offer good opportunities for improving water management at the grass-root level.

The activities of the Government of Uzbekistan as well as numerous international donor organizations focus on improving the technical water infrastructure. Aspects of water management (rather than irrigation infrastructure) are often given less consideration. Since every irrigation infrastructure can only function as well as its institutions and employees, we suggest that these technical efforts should be combined with institutional development.

## Impact of the 2008 drought

During the drought year of 2008 most of the WUAs studied in the Khorezm region received only 40 to 80% of their water shares during the growing season (April to September). Due to linkages between the groundwater and canal systems, this resulted in crop failures and directly impacted the livelihoods and well-being of the rural population.

In this situation of severe water shortage – especially at the tail end of the canal systems – the present institutional set-up failed in many cases to cater for the urgent needs and problems of the rural population who wished to secure their household and crop water requirements. Water users took the initiative and collective action emerged widely with water users in the study areas applying a variety of strategies to enable access to water: people organized joint pump management schemes, took care of the maintenance of the irrigation and drainage network at their location, and voiced the needs of their area through contacts with the local governor, through electricity blackouts, re-fixing the water regulation gates and canal inlets.

## Recommendations

Water availability is highly affected by its management, which is a complex social and political process. Understanding this process requires grass-root level involvement to enable integrated policy formulation. The following concrete recommendations for improving the institutional structure of water management can be formulated based on the research conducted:



Technical improvement of water infrastructure should be combined with institutional development.

- A revision of the current water law of 1993 should lead to the protection of water rights for small holders and other water users in the irrigated systems.
- A law actually defining the role and status of WUAs in the water management system should be formulated and passed.
- A coordinating water management platform for WUA representatives at the main canal levels must be created to enable the joint management of water by all Canal Management Organizations.
- Water User Associations should be provided with a minimum level of technical means (transport, improving technical deficiencies related to irrigation/drainage infrastructure such as functioning gates/outlets, water quantity measurement devices) so as to be able to effectively fulfil their role as farmers' organizations. These means could be provided by the state or international donor agencies.
- During the 2008 drought, collective action of water users at grass-root level filled the existing water management gap and poses the same potential in water abundant years as 2007. One can therefore explicitly recommend encouraging the social mobilization of water users to improve the current institutional deficiencies of the irrigation system. Here, practical and legal steps must be taken to create the space for collective action.

## IMPRINT

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