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### Water Governance Reforms in the Kyrgyz Republic

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#### Introduction

In many regions of the world conflicts over water and its allocation and use, and in particular the role of agriculture as a major water user, are on the rise. Taking a holistic approach, Integrated Water Resources Management (IWRM) tries to address these problems (cf. Box 1). The present poster sheds light on the IWRM implementation process in a transition country. Based on an analysis of selected examples of Kyrgyz water governance reform, it describes the status quo, the potential of IWRM and obstacles to its introduction.

Since 2002 the Kyrgyz government (with the support of several donors) has drafted and passed a number of IWRM-inspired laws, among them a new Water Code (2004) and the Law on Water User Associations (2002). To enable the process of enforcing these laws to be assessed, water governance concepts are combined with IWRM as the normative framework.

## $\label{lem:conceptual framework: water governance and IWRM$

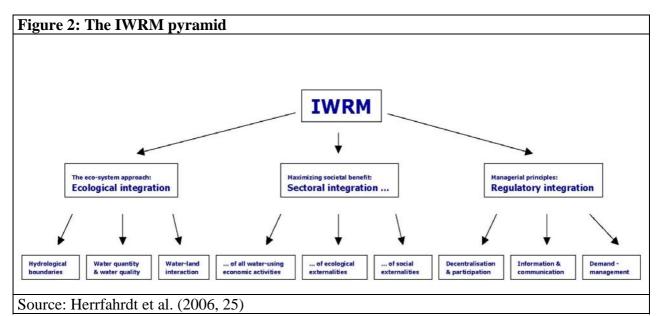
According to Saleth and Dinar, water governance covers all institutions and organizations involved in water management as well as their interactions (cf. Figure 1) (Saleth / Dinar 2004). The term 'institutional arrangement' refers to the sum of all organizations involved in water management. The term 'institutional environment' means the sum of all institutions and includes formal

rules (legislation), informal rules, and policies. In accordance with new institutional economics, institutions are defined here as "the rules of the game in a society; more formally, they are the humanly devised constraints that shape human interaction. In consequence they structure incentives in exchange, whether political, social, or economic" (North 1997, 2).

# **Box 1: Integrated Water Resources Management**

Integrated Water Resources Management (IWRM) is a holistic approach to water management, including its ecological, economic and social aspects, and highlighting, among other things, the principle of subsidiarity, a combination of supply-side measures and demand management, and participation and decentralization.

The extensive IWRM model can be operationalized as consisting of the components of ecological, sectoral, and regulatory integration as the model's three main pillars (cf. Figure 2). Ecological integration refers to the eco-system approach and requires that systematic account be taken of ecological interdependencies, such as the management of water resources along hydrological boundaries, water quality and quantity issues and water-land interaction. Sectoral integration denotes the internalization of economic, ecological and social externalities of water use in order to direct water allocation to uses that are most beneficial to society. Inter-temporal



trade-offs are taken into account to ensure that future generations will still be able to satisfy their needs, as enshrined in the principle of sustainable development. Regulatory integration requires decision-making structures to be organized in accordance with the principle of subsidiarity and to involve all stakeholders. Decisions should be based on adequate data and combine supply-side measures and demand management, which seeks to prioritize demands and promote efficiency of water use.

### Selected examples of reform processes

Hydrological boundaries: The new Water Code states that water management must be "undertaken within the boundaries of the principal basin in accordance with hydrographic principles" (Kyrgyz Republic 2004, Article 5). Kyrgyz provincial Departments of Water Management (DWMs) correspond more or less to hydrological boundaries, mainly because of geographical features. The district DWMs, though, follow only administrative boundaries. Their service areas, combined with their considerable relevance as regards equitable water allocation to users, constitute a significant obstacle to the introduction of IWRM. In much the same way, WUA service areas are determined by administrative boundaries, such as village borders or former collective farms. This results in various problems, such as a lack of water in downstream WUAs or disputes over responsibility for the rehabilitation of shared infrastructure.

Integration of social externalities: Risks of exacerbated poverty result from increased fees on the one hand and factual discrimination against poor farmers in decentralized water management on the other. Currently, there is no differentiation of fees to the benefit of poor farmers. The poorest farmers already face difficulties in paying their fees, and it appears that sanctions against debtors are being increasingly enforced. Although kinship ties and respect for elders prevent sanctions against debtors from being enforced harshly, the 'first pay – first serve' principle seems to be gaining ground. The interactions between irrigation and public health (such as consumption of polluted irrigation water due to broken or absent drinking water infrastructure and increases in water-borne diseases) do not seem to be attracting sufficient attention from the authorities.

Nor are gender topics an issue. Women's water needs are widely neglected, and

women are underrepresented in decisionmaking bodies.

Decentralization and participation: With the foundation of WUAs, significant efforts have been made to transfer irrigation infrastructure and decision-making power to local level. Nevertheless, the performance of WUAs is far from satisfactory. This is mainly due to interference from other informal organizations at local level, such as courts of elders, to poor financing and to a lack of recognition by farmers. In addition, **WUAs** exist many only paper (Chemonics International 2003, 29).

Despite a wide range of mechanisms to ensure participation in the Water Code, stakeholders do not yet appreciate what their new role is and may even be unaware of this role. Old informal rules and mindsets, such as the passivity of water users, the influence of (former) elites, and autocratic leadership, are obstacles to participation at local level and the proper development of such new organizations as WUAs.

Demand management: Demand management seeks to enhance water use efficiency by means of volumetric water fees, for example. Even though the fees are very low, there is little willingness to pay for water. Reports of water being stolen are still heard. Waterpricing is difficult to enforce, since the traditional perception of water as free and Godgiven prevails. However, according to most experts, the situation has recently been improving.

### **Conclusion**

Kyrgyz water management is heading towards IWRM, but progress is far from satisfactory. Most of the relevant legislation is in place, but enforcement is very sluggish. Progress varies from one component of the IWRM pyramid to another. Most has been achieved with the managerial principles of IWRM, i.e. regulatory integration. The decentralization of irrigation management has advanced particularly quickly. Subsidiarity seems to be gaining ground, the plan being for WUAs and – probably – future WUA

federations to take over whole irrigation schemes. This will entail the transfer of most powers from district DWMs to WUAs, making the former superfluous in the medium term (and so overcoming their incompatibility with hydrological boundaries). Demand management has slightly improved with the introduction of volumetric water fees to be paid by end users or WUAs to district DWMs.

Moderate progress can be observed in the area of ecological integration. With the introduction, merging and future federation of WUAs, management structures will be more in line with hydrological boundaries.

Advances in sectoral integration have been moderate. The integration of social externalities is rather ambivalent: health and gender issues are widely neglected, and local water conflicts continue to pose considerable problems. There is no targeted subsidization of available irrigation services aimed at easing the burden on poor farmers.

Therefore, the Kyrgyz government, donor organizations and researchers are recommended

- to place greater emphasis on sustainable institution and capacity-building (and recognize existing formal and informal organizations and institutions), and especially
- to strengthen formal organizations at local level, such as WUAs, and
- to improve the dissemination of information to all stakeholders.

For only when water management problems at local and national level are solved can there be scope for finding international solutions.

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