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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. With a holistic approach, Integrated Water Resources Management (IWRM) tries to address these problems (cf. Box 1). The present poster sheds light on the implementation process of IWRM in a transition country. Based on an analysis of selected examples of Kyrgyz water governance reform, it demonstrates the status quo as well as the potentials of and obstacles to the realization of IWRM.

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

### Conceptual framework: Water governance and IWRM

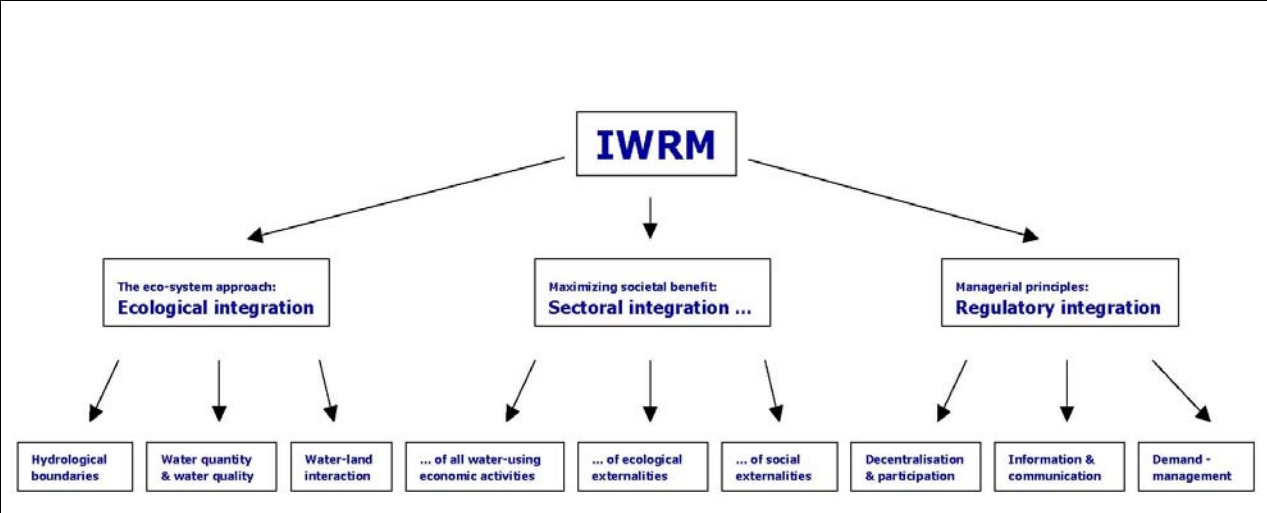
Following Saleth and Dinar, water governance covers all institutions and organizations involved in water management as well as their interactions (cf. Figure 1) (Saleth / Dinar 2004). The term 'institutional arrangement' refers to the sum of all organizations involved in water management. The term

'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 Resource Management**

Integrated Water Resources Management (IWRM) is a holistic approach to water management including ecological, economic and social aspects, and highlighting, among others, the principle of subsidiarity, a combination of supply-side measures with demand management as well as participation and decentralisation.

The extensive model of IWRM 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 to systematically taking into consideration 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

**Figure 2: The IWRM pyramid**

Source: Herrfahrdt et al. (2006, 25)

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 according

to the principle of subsidiarity and recognize the participation of all stakeholders. Decisions should be based on adequate data and combine supply-side measures with demand management, which aims at prioritizing demands and promoting 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 hydro-graphic principles” (Kyrgyz Republic 2004, Art. 5). Kyrgyz province Departments of Water Management (DWMs) correspond more or less to hydrological boundaries, which is mainly because of geographical particularities. The district DWMs though exclusively follow administrative boundaries. Their service areas, in combination with their high relevance for equitable water allocation to users, constitute a noteworthy hurdle on the way to implementing IWRM. In almost the same manner WUA service areas are determined by administrative boundaries such as village borders or former *kolkhozes*. This results in various problems like the availability of water in downstream WUAs or disputes over responsibility for rehabilitation measures in shared infrastructure.

*Integration of social externalities:* Risks of exacerbated poverty result from increased fees on the one hand and the factual discrimination of 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 sanctions against debtors increasingly appear to be enforced. Although kinship ties and respect for elders prevent sanctions against debtors from being enforced draconically, the ‘first pay – first serve’ principle seems to gain 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 receive adequate attention from authorities.

Gender topics are also not an issue. Women’s water needs are widely neglected and women are underrepresented in decision-making organs.

*Decentralization and participation:* With the foundation of WUAs significant efforts have been made to transfer irrigation infrastructure and decision-making power to the local level. Nevertheless, WUAs' performance is far from satisfactory. This is mainly due to interference of other informal organizations at the local level such as courts of elders, low finance, low recognition through farmers. Additionally many WUAs only exist on paper (Chemonics International 2003, 29). Notwithstanding comprehensive mechanisms for participation in the Water Code, stakeholders do not yet realize their new role and often are not even aware of it. Old informal rules and mental patterns such as the passivity of water users influence of (former) elites, and autocratic leadership hinder participation at the local level and the proper development of new organizations such as WUAs.

*Demand management:* Demand management seeks to enhance water use efficiency through e.g. volumetric water fees. Even though fees are very low the willingness to pay for water is even lower. There are still cases of water theft reported. Water pricing is difficult to enforce, since the traditional perception of water as a free and God-given good prevails. However, according to most experts, the situation is recently improving.

## Conclusion

Kyrgyz water management is heading towards IWRM but achievements are far from satisfactory. The relevant legislation is mainly in place but implementation lags considerably behind. Progress varies with regard to the different components of the IWRM pyramid. Most progress has been achieved on the managerial principles of IWRM, i.e. regulatory integration. In particular, decentralization of irrigation management has quickly advanced. Subsidiarity seems to be gaining ground, since merged WUAs and – probably – future WUA federations are supposed to take over whole irrigation schemes. This implies the transfer of most competencies from district DWMs to

WUAs, rendering the former superfluous in the middle term (thus also solving 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 regarding ecological integration. With the introduction, merging and future federation of WUAs, management structures will be more in line with hydrological boundaries.

Totally moderate advances have been made on sectoral integration. 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 irrigation services available aimed at unburdening poor farmers.

Based on the analysis the Kyrgyz government, donor organisations and researchers are recommended to

- put more emphasis on the fields of sustainable institution and capacity building (and recognize existing formal and informal organizations and institutions), and especially
- strengthen formal organizations at the local level such as WUAs,
- improve the distribution of information among all stakeholders.

For only when water management problems on the local and national levels are solved can there be scope for achieving international solutions.

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