

## **Path dependencies and institutional bricolage in Post-Soviet water governance**

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### **Abstract**

Since their independence, the two Central Asian states Kyrgyzstan and Tajikistan decided on similar water governance reforms: transfer of local irrigation management to water user associations, introduction of pricing mechanisms, and establishment of hydrographic management principles. In both states, however, proper implementation is lacking. The paper aims to explain this contradiction and focuses on agricultural water governance reforms at the local level as an interdependent part of a multi-level water governance structure.

Based on empirical findings, four variables through which the neo-patrimonial context in both countries impacts water governance are identified: the decision-making process, the agricultural sector, the local governance institutions, and internal water-institutional linkages.

A historical-institutionalist perspective shows how path dependencies limit reform effectiveness: Institutionalized Soviet and pre-Soviet patterns of behaviour still shape actors' responses to new challenges. Consequently, rules and organizations established formally by the state or international donor organizations are undermined by informal institutions.

But informal institutions are not only an obstacle to reform but can also support it. Also, they are not static but dynamic. This is grasped with the concept of 'institutional bricolage' to explain how local actors recombine elements of different institutional logics and thereby change their meaning.

### **Keywords**

Kyrgyzstan, Tajikistan, irrigation, water governance, new institutionalism

## Introduction

Water is commonly referred to as a common pool resource - a non excludable public good but with rivalry in consumption. Hence, research has long focused on collective action problems in managing this common resource. In recent years, especially anthropological and sociological scholars criticized that in these studies the complexity of water, its embeddedness in a wider cultural and social context, and the role of power have been neglected. Water is in some important aspects different from other natural resources: in its mobility, its variability, and its multiplicity. The first makes ownership claims difficult: water is moving, transcending state borders, not fixed like other resources. The second refers to the fact that its availability is varying temporarily, depending on weather conditions. Thirdly, water is used for different economic, technical, cultural, and social purposes simultaneously and has hence material as well as symbolic dimensions. Consequently, the question of its management is more complex than of other resources such as oil or coal, which are fixed in place and not as strongly embedded in the social context as water (Mehta 2006: 2f; Linton 2006: [10]). It is therefore obvious, albeit long neglected, that water management is not a merely technical issue that can be addressed by technocrats and engineers alone, but a political process (Mollinga, Bolding 2004; WWC 2004). Therefore, the final policy output is the result of strategies, debates, conflicts, and coalitions between individual and organizational actors with different interests concerning the distribution and use of water resources.

Since the turn of the millennium, this insight has received enhanced consideration and resulted in what Tony Allan called the "political-institutional water paradigm" (Allan 2003). It is centered on the term "water governance". On the one hand, and in its most popular usage, it points to the necessity of Good Governance in the water sector. "Good Water Governance" quickly became a popular buzzword on conferences and in international donor discourses. On the other hand, it refers to the complex setting of water management in wider governance structures that have to be accounted for when analyzing water usage and its regulations.

This paper analyses water institutional reforms in the two post-Soviet states Kyrgyzstan and Tajikistan from a governance perspective. Hence, it looks on reforms that strive to establish Good Water Governance and analyses how they are influenced by the general governance structure. In both countries, reforms intend a transformation from a state-managed, sectoral, centralized system without usage fees and public participation towards a hydrographic, decentralized, inter-sectoral system with user participation and irrigation service fees.<sup>1</sup> However, both countries can be hardly assessed as following general Good Governance principles. Rather, they can better be characterized as neo-patrimonial regimes, where certain formal democratic structures have been established, but are supplemented and undermined by (informal) patrimonial ones such as clientelism, corruption, and personalistic rule resulting in a rather authoritarian regime type. How can water governance reforms become effective, hence reach Good Water Governance, in such a setting?

## The water governance perspective

When speaking of "water governance", one has to distinguish between two meanings: a normative and an analytical one. Concerning the latter, governance refers to a distinct

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<sup>1</sup> In this paper, the focus is on rural water governance and agricultural water usage, where most reform efforts in the two countries occur. Questions of hydro power and industrial and communal water consumption are excluded.

analytical perspective on regulation and coordination processes. Governance is not a theory nor implies a certain theory but is an analytical tool to describe and assess reality. The rise of the governance concept on the one hand shows the wish or need for a different perspective to analyze reality; on the other hand it is a reaction to a changed reality so that new approaches in its analysis have been necessary: It reflects a shift of power from government alone to local levels, transnational organizations and to civil society and private actors (Pierre, Peters 2000: 75-93). Consequently, politics is not seen as regulation and control by one authoritative actor (the state), but as interaction between interdependent collective actors on different levels - local, regional, national, international. These different levels are especially considered with the term "multi-level governance" (Benz 2004a, 2007).

Though there are "perhaps as many views about governance as there are scholars interested in the subject" (Pierre, Peters 2000: 28), they have in common that they - beside questioning the role of government - believe in the governability of society and economy. One premise of the governance approach is that regulation between actors is possible; i.e. that policy is not entirely determined by economic constraints or power interests. As it assumes that politics is not only a power game of elites, it acknowledges that institutions have influence. So, while in general governance analyses are more interested in output than in institutional forms, they are not incompatible with an institutionalist perspective as is taken in this paper. The governance perspective can reveal the dynamic concurrence of structures and processes, institutions and actors, rules and rules application, e.g. when it explores the role of institutions on the governance process by scrutinizing path dependencies (following Historical Institutionalism) or by analyzing the institutional logics utilized in order to exert governance (following Sociological Institutionalism) (Benz 2004: 21; Pierre, Peters 2000: 43).

In the water governance discourse, this analytical governance approach is adopted by an understanding that the former water management perspective was too narrow. The definition of water governance as formulated first by the Global Water Partnership and later adopted and modified by the UN is: "The governance of water in particular can be said to be made up of the range of political, social, economic and administrative systems that are in place, which directly or indirectly affect the use, development and management of water resources and the delivery of water services at different levels of society. Governance systems determine who gets what water, when and how and decide who has the right to water and related services and benefits." (UNESCO 2006: 47)

Water governance hence encompasses all social, political, and economic structures, formal as well as informal rules, and processes that influence water use and water management. It involves government, civil society, and private sector. The usefulness of the emphasis on coordination by governance is obvious: Water has multiple economic usages: irrigation, hydro power generation, sanitation and communal water supply, industrial water needs, fishery, navigation and transport, recreation and tourism etc. Hence it affects different policy fields. Their coordination is one of the big challenges. Pure hierarchical state-centred management failed obviously in the past. And a complete privatization – while welcomed by some – is not in line with the perception of water as a public good, even less with access to water as a human right. Water governance hence provides a comprehensive perspective on water usage and regulation, one that allows taking into account the interests and stakes of different economic sectors and of actors at multiple administrative-political levels as well as including questions of democracy, power, corruption, etc into analysis (UNESCO 2006: 48ff).

However, this analytical governance approach has played a minor role in the water governance discourse. Of much more importance is the normative notion of Good Water Governance.

In the international discourse on Good Water Governance, the classic Good Governance criteria of transparency, accountability, equity, coherency, and ethics are defined as objectives for water usage and regulations (UNESCO 2003: 373; Rogers, Hall 2003). Tropp (2005) identifies four dimensions of Good Water Governance (see figure 1):

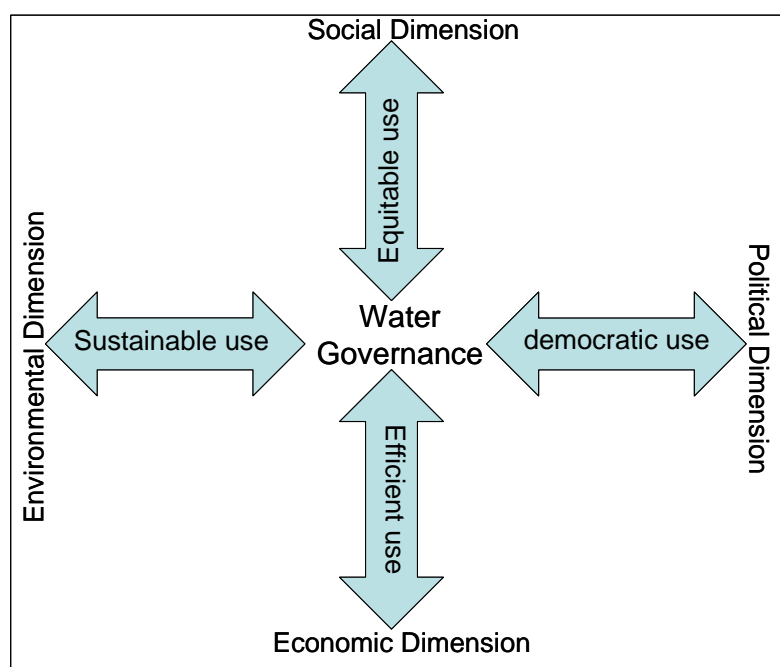


Figure 1: Dimensions of Good Water Governance

The social dimension aims at equitable distribution of water usage - between poor and rich people, between different economic sectors, between rural and urban needs. The environmental dimension aims at sustainable use taking into account ecological needs and water quality issues. The economic dimension aims at efficient use and thereby contributing to improved water access and sustainability. Finally, the political dimension aims at democratic empowerment of the water users in order to achieve an equitable and target-oriented water management. Following these conceptualizations, Good Water Governance can be defined with a process and an output dimension: Good Water Governance is a democratic and coherent coordination and regulation process that leads to equitable, efficient, and sustainable water usage.

### Water institutional reform: theoretical framework

Good Water Governance may be a catchword at conferences and on the policy agendas of donor organizations. But how can it be put into practice, especially in states that are not characterized by general Good Governance and democratic structures? Water governance reforms are reforms of water institutions, of the rules that regulate water usage. Institutions are no longer seen as one aspect influencing water sector performance, but as subject to be addressed by reform efforts: water institutions have to be changed so that they enable good water governance, hence democratic, equitable, efficient and sustainable usage of water resources. Water institutional reform is now perceived as key for reforms of the water sector (see e.g. Allan, 1999; Neubert et al., 2002; Saleth and Dinar, 2005). Can such water institutional reforms be effective (that means achieve Good Water Governance) in a neo-patrimonial institutional context like that of Kyrgyzstan and Tajikistan, but also of many other countries?

Before coming to the concrete case studies, it seems necessary to briefly outline the understanding of institutions and of institutional change that forms the basis of the analysis. Recurring to the conceptualization of institutions in Sociological Institutionalism, I define water institutions as those formal and informal rules, norms and their underlying cognitive and symbolic systems as well as the organizations that set and enforce them that purposefully regulate usage, distribution, and status of water resources in a society. Following Saleth and Dinar (1999, 2004), they can be broadly distinguished in water policy, water law, and water administration. Water law refers to the legal status of water, water rights, conflict resolution mechanisms, possible contradictions between laws, legal pluralism, existence or non-existence of administrative regulations for implementing the law. Water policy covers usage priorities, water tariffs, decentralization or centralization of competencies, participation, and coordination with other policies. Water administration is the organizational structure of water management, including funding, staff, capacities, and fee collection (Saleth and Dinar 2004: 101ff).

The analysis of water institutional reform is an analysis of institutional change. Thereby the puzzle to be explained is often the persistence of institutions, even under reform programs, changing conditions, and pressure from the political elite. This question is especially crucial when it comes to informal institutions: by definition they cannot be changed centrally as they emerge by social dynamics and do not possess a regulating or coordinating centre (Lauth 2000: 24f). The relationship between formal institutional change and informal institutions that so far got only limited attention, if so especially by scholars of syncretism and legal pluralism (Helmke, Levitsky 2004). For an analytical framing of these processes of change and continuity, I want to use two explanatory models: First, the concept of *path dependency* developed by scholars of Historical Institutionalism can explain why institutions persist despite reform programs. Second, the concept of *institutional bricolage*, which is close to approaches of Sociological Institutionalism, can explain how change and persistence occurs simultaneously and is interwoven.

#### *Path dependency*

Path dependency explains the difficulties of institutional change: A ‘path’ is the way institutions “structure a nation’s response to new challenges” (Hall, Taylor 1996: 941). Historical experiences and policy legacies frame present actions: behaviour or identities that already once proved to be successful, that are established, will be used again to meet new challenges. Path dependency becomes effective by feedback mechanisms, which can be functional or distributional effects (Thelen 1999: 392-396): The functional effects relate to the incentive structure, what means that “once a set of institutions is in place, actors adapt their strategies in ways that reflect but also reinforce the ‘logic’ of the system” (Thelen 1999: 392). Institutions still transmit the norms, values, capacities and routines they acquired in former times. Distributional effects refer to the power asymmetries that are reinforced by institutions. In this way they marginalize other actors from political processes that would have an interest in alternative institutional arrangements. The reason for the genesis and persistence of institutions is hence not (only) that they perform a certain function but (also) that they serve certain interests. This has important implications for analyzing institutions and for questions on how to change them: The question is not (only) whether institutions are functional but who benefits from them (Thelen 1999: 396). Institutional continuity is hence not something static, but a dynamic process of reproduction and adaptation (Streeck, Thelen 2005). These effects are reinforced as reform policies in general are eager to establish new institutions while they rarely give attention to the de-institutionalization of old institutions so that they are not replaced but rather complemented by new ones (Lowndes 2005: 294).

### *Institutional bricolage*

A heuristic approach to institutional change that stresses the constraining as well as enabling aspects of institutions can be found in the concept of *institutional bricolage*. Claude Levi-Strauss used the verb *bricoler* "to emphasize a non-presaged movement"<sup>2</sup> (Levi-Strauss 1968: 29) where the choice is only limited by the elements available (Levi-Strauss 1968: 29-36). There are two broad 'schools' that use that concept: one in anthropology on local level resource management, and one in economy on macro-social transformation.

Frances Cleaver (2002) uses the term *institutional bricolage* to describe the unspecific character of the process in which institutions are 'put together' by the bricoleurs, puttering and using elements they already have. She underscores the aspects of multiple identities of the bricoleurs, of cross-cultural borrowing, and of multi-purpose institutions in order to understand institutional change. Bricoleurs patch – partly unconsciously – together elements of different institutional logics available to them leading to new institutional arrangements. This also means that in the process of institutional change and bricolage, the logic of another institution may influence the process. E.g., concerning water institutions, actors may choose institutional elements not of the water management institutional logic but of the community logic, as in its realm both institutional logics intersect and norms of social consensus may be equally important (Cleaver 2002: 17).

Galvan (2004), in his research on local adaptation of imposed political and economic institutions in Senegal, uses the term bricolage to describe a process of interweaving and thereby transforming informal and formal institutions resulting in *institutional syncretism*. Syncretic institutions are "institutions that result from deliberate and coherent recombination of administrative forms, rules, habits, or norms from more than one socio-cultural origin" (Galvan 2004: 2). Syncretism is more than the mere combination of different elements but means the "ongoing, incremental, creative transformation of all elements" (Galvan 2004: 28). Syncretic institutions are qualitatively new elements. The mere combination of one modern component with one 'traditional' component with both remaining unchanged would hence not meet the criteria of a syncretic institution (Galvan 2004: 28).

Cleaver and Galvan have in common that they apply the concept to local level institutional changes. Both hold a normative view on bricolage which in their view leads to positive results: socially embedded institutions (Cleaver) or culturally sustainable institutions (Galvan) respectively. In Cleaver's understanding, bricolage is the opposite of decisions that form bureaucratic (formal) institutions; Galvan contrasts it to "pseudo-syncretic grafting".

Another version of the bricolage concept can be found in its application to macro-social and economic transformation. Stark and Bruszt (1998) as well as Grabher and Stark (1997) criticize in their work the explanatory value of common approaches to post-socialist transformation. They perceive the persistence of socialist and Soviet legacies not as obstacles to reform, as neo-liberal economists would do, but as potential resources for the future. While not providing a clear definition of bricolage, they use the term in order to stress two points: First, in rejecting the idea of transition, they understand transformation as "rearrangements, reconfigurations, and recombinations that yield new interweavings of the multiple social logics that are a modern society" (Stark, Bruszt 1998: 7). Second, they stress the agency factor in institutional change: "(...) it is precisely in reworking the institutional materials at hand that actors innovate. In our view, institutions do not simply constrain; they also enable. It is through a political and

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<sup>2</sup> "um eine nicht vorgezeichnete Bewegung zu betonen" translation JS.

economic bricolage that new institutions and new practices emerge." (ibid.). Campbell (1997: 23ff) also stresses the constraining as well as enabling effects of institutions leading to actors that are simultaneously objects (of institutions that limit the range of solutions) and subjects (that can creatively recombine and extend institutional elements).

I will use the term institutional bricolage to describe a non-teleological, partly purposeful and partly unintentional process of the combination and transformation of institutional elements that results in a qualitatively new type of institution. However, this does not have to be a more appropriate one in a functionalist sense but it can be the one that serves better the interests of certain actors. Also bricolage is hence related to questions of power as put by Historical Institutionalists. On the other hand, it stresses the unconsciousness and "messiness" of institutional change, rejecting the idea of completely conscious and rational "designing" of institutions. In this process, actors are constrained by institutions while they are at the same time actively involved in their reassembling and reinterpretation. Institutional bricolage offers therefore an approach of institutional change that is situated between path dependency and the development of new, alternative paths, that are never completely "new" but a re-combination of existing institutional elements and new concepts.

### **Research design and methodology**

The research design is a Focused Comparison using the Most Similar Cases Design (MSCD). With this method of small-n comparisons, the respective case study countries are selected based on a number of shared features (context variables) so that the differences (independent variable) that explain various political outcomes can be highlighted. The advantage of a small-n approach is that it allows for restricted inferences and heuristic theory development through a focused and structured comparison and at the same time still being able to detect case-specific details and to include historical explanation and process-tracing as it builds on in-depth case studies (Lijphart 1971; Hague et al. 1998: 272-287; Landmann 2000: 27-32; George, Bennett 2004: 151-179, 205-232).

Both cases are relatively small, landlocked mountain states with similar patterns in economic development and structure, water resources and water usage, historical institutions of water management, national policy priorities, and state of financial, technical and professional capacities: In the economic realm, both countries are developing countries with only a small industrial sector. Agriculture is of major importance, although in both countries less than 10% of the territory is arable land. Despite these geographical constraints and also despite the fact that agricultural production declined about 50% since independence, agriculture counts for 45% of the GDP, 40% of the work force, and 30% of the exports in Kyrgyzstan. In Tajikistan, cotton, which is especially water-intensive, constitutes 43% of all planted crops and brings 11% of all export gains. As for the workforce, 65 to 70% is engaged in agriculture. Subsistence agriculture has become increasingly important, especially for the population who lives in rural areas (ADB 2000; Bucknall et al. 2003: 4; UNDP 2003: 33f, 38; UNECE 2004: 137; Pulatov 2004: 83).

These economic conditions have a direct impact on water usage: water is a critical resource for agriculture as for a considerable degree cultivation of lands is only possible with irrigation (75% of the land in Kyrgyzstan and 84% in Tajikistan). Hence, agriculture is the main water user in both countries. It counts for 90% of water usage in Kyrgyzstan and 84% in Tajikistan (UNDP 2003: 21; MISI, FES 2003: 7; Bucknall et al 2003: 3f). Both states are endowed with rich water resources; hence do in general not suffer from natural water scarcity. However, water shortage due to inefficient management practices is a problem in certain regions.



The two case studies are mainly based on policy documents, drafts and donor reports, mostly gray literature. The most important source of information was field research using qualitative methods. The field research was six months in total, split in four research periods between 2003 and 2005. Several methods were triangulated: semi-structured expert interviews, open interviews, participant observation, informal conversations, and local case studies. Semi-structured and open expert interviews have been conducted with representatives of different agencies of the state water administration and related state agencies, NGOs, donor agencies, academic institutions, and individual experts (see table 1). All interviews have been transcribed and analyzed using MAXqda software.

Table 1: Interviewees sorted by institutional affiliation

Organization	Kyrgyzstan		Tajikistan	
	Semi-structured interviews	Open interviews	Semi-structured interviews	Open interviews
Water administration central level	3	2	5	3
Water administration meso level	3	2	3	3
Other administration	2	1	4	-
Academic institutes	3	3	1	2
Independent experts	1	-	-	-
Donor organizations	1	5	-	7
NGOs	2	2	2	1
Foreign experts	-	2	-	2
Total	15	17	15	18

Additionally, in each country an in-depth case study of one WUA was conducted, using tools of Participatory Rural Appraisal (PRA) such as semi-structured and open interviews, informal conversations, participant observations, and group discussions. The case studies were conducted together with local field assistants in Kyrgyzstan in Sokuluk district, Chuy province, and in Tajikistan in Aini district, Khudjand province. The districts for the case studies were not selected on criteria of representativeness as the objective is not to confirm or falsify certain hypotheses but rather to heuristically develop an understanding of the institutional dynamics on local level. These case studies were accomplished with short-term field visits in other parts of the countries to allow for better assessment.

### Water governance in Kyrgyzstan and Tajikistan

Historically, in both countries a similar water governance system evolved, especially through their shared past under Russian and then Soviet rule.<sup>3</sup> The end of the Soviet Union challenged the existing modes of water usage, management, and governance in various ways: the unified Central Asian water-energy system collapsed. New national priorities replaced Union ones and set new framework conditions at which water policy has to orient itself. The economic crisis in both countries also resulted in a decline of

<sup>3</sup> On pre-Soviet and Soviet water governance in Central Asia see Bichsel 2006: 111-114, O'Hara 2000: 372-376, Thurman 2002: 4-7)

financial allotments to the water sector on a level of less than 15% of that of the late 1980s (Bucknall et al., 2003: 4; UNDP, 2003: 33). Experts emigrated, O&M of the infrastructure collapsed. This has severe consequences for the state of technical infrastructure, in Tajikistan yet worsened by the civil war (1992-1997). Therefore, both countries were confronted with similar challenges after independence: to develop an own sovereign water policy and to cope with budget and capacity shortages and the institutional legacies of Soviet water governance.

Both states inherited a highly hierarchical and fragmented water governance structure from the Soviet Union, where a distinct Ministry of Water Management (*MinVodKhoz*) was the main organization with centralized power and a hierarchical structure of its departments at the republican, provincial and district levels. No noteworthy horizontal coordination between water using sectors existed. These legacies still shape the current water governance structures. In Tajikistan, the organizational structure remained more or less unchanged. In Kyrgyzstan, the *MinVodKhoz* was dissolved and subordinated as *DepVodKhoz* (Department of Water Management) to the Agricultural Ministry, what reinforced coordinating problems rather than solving it. The coordination problems in both countries result in overlapping competencies on the one hand and responsibility gaps on the other hand. Especially in Kyrgyzstan, administrative fragmentation is considered a serious problem by many experts (Sehring 2007: 126f; SPECA 2004: 60)

### Water institutional reforms in Kyrgyzstan and Tajikistan

As post-Soviet states depending on international aid, the challenges for water governance in both countries are similar: Both countries have had to cope with a deteriorated infrastructure; with decreasing financial means and professional capacities; with the disintegration of the regional water governance system; with a hierarchical governance system not adequate to meet the new challenges; and with the necessity to develop an own policy strategy. Additionally, both states have been confronted with the same norms in the international discourse as to what Good Water Governance should look like. The primary incentives for conducting reforms in the two states were budget crisis and donor pressure - a situation similar to many developing countries (Meinzen-Dick et al. 1997: 13). Consequently, they share many reforms projects in response to international norms (hydro-graphic management, decentralization, user participation, irrigation service fee (ISF)) and to post-Soviet needs (ISF, new legal framework, transboundary management).

The reforms conducted during the period of investigation (1991-2005) are listed in Table 2. The table shows for both countries policy decisions on reforms and indicates the year of the respective law or decree. Decisions by law are indicated with dates in bold. The years in brackets indicate that these were no special laws, decrees, or policy directives, but part of the Water Code, Law on Water or Water Policy Strategy. The second row for each country presents an assessment of the effectiveness of the implementation process, which is the result of the policy analysis conducted by the author.

Table 2: Water institutional reforms in Kyrgyzstan and Tajikistan 1991-2005

Reform policy	Kyrgyzstan	Kyrgyzstan	Tajikistan	Tajikistan
	Policy decision	Implementation	Policy decision	Implementation
Water policy strategy	Draft 2003	-	2001; 2006*	partly
New legal	<b>1994; 2005</b>	-**	<b>1993; 2000</b>	partly

framework (Water Code)				
Regulation on transboundary waters	2001	No	(2000)	-
Irrigation service fee (ISF)	(1994) 1995, 1999	Partly	1996	partly
Hydrographic management	1997	No	(2000, 2001)	no
Inter-sectoral coordination	2005	Not likely	-	-
Irrigation management transfer to WUAs	1996, <b>2002</b>	Ongoing	1999, <b>2006*</b>	ongoing

\* approved after the author's survey

\*\* implementation efforts only started after research period

Source: own compilation

In this article, I want to focus on those reforms that have been (at least partly) conducted in both countries and that are especially relevant for rural water governance: a new water policy strategy, a new legal framework, irrigation service fees, and water user associations.<sup>4</sup>

#### *Water Policy Strategy*

After independence, both states felt the need to develop their own water policy strategy where the fundamentals and priorities are outlined. However, throughout the 1990s, both countries did not dispose of such a strategy. In Tajikistan only in 2001 a “Concept on rational use and protection of water resources in the Republic of Tajikistan” was issued and later replaced by the Water Sector Development Strategy of 2006. The latter was developed within only some months with support of UNDP. Both reflect the general Good Water Governance principles. In Kyrgyzstan, a National Committee on Water Strategy was established in 1996. However, due to conflicting interests of the members it did not succeed in reaching consensus. Even after a draft version was published with support of the German Friedrich Ebert Foundation in 2003, it never got accepted by Parliament and Government. For the whole research process the country hence lacked a formulated water policy as base for coherent reform programs.

#### *New legal framework*

The first water laws in both countries were more or less the old Soviet ones and soon proved to be inadequate for the new situation and the beginning reforms. New legal frameworks had to be developed that involved regulations on issues such as water rights,

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<sup>4</sup> For a detailed analysis of all reforms see Sehring 2007.

the role of water user associations, contracts of water delivery with the new private farmers, etc.

Tajikistan renewed its 1993 Water Code in 2000. Amongst others, it clarifies the rights and obligations of water users, contains the right to form water user associations, and envisages a transition to basin management. However, until today many necessary by-laws and sub-normative acts are missing. The Water Code is often not applied due to lacking knowledge, not only by water users but also by local courts and officials that do not prosecute violations. Additionally, it still lacks many important implementation mechanisms and those decided are only partially applied.

In Kyrgyzstan, the development of a new Water Code also began in 2000, but it was only approved in 2005. It codifies among others clear water rights, a commitment to basin management and stakeholder participation, the establishment of a state water administration and a national water council to coordinate among sectors and develop a national water strategy. Its development faced similar problems as that of the policy strategy (that was initially meant as a basis for the Water Code) and took considerably longer than planned due to much resistance. Also after the approval of the Code by the Parliament, it lacked ownership among experts (who claimed that basically international donors would have written the law) and first steps of implementation were rather unsuccessful.

#### *Irrigation management transfer to WUAs*

The concept of the Water User Association (WUA) seems ideal to merge all the main normative objectives of the current water governance discourse: it is a democratic grass-roots organization of the water users themselves at decentralized level, independent from state structures. It finances itself with members' payments for the service of water delivery. Its main tasks are the maintenance of the tertiary irrigation system; the operation of this system, i.e. the distribution of the water obtained by the district water agency to the member farms in an equitable manner; and the collection of ISF from its members. Due to the accountability of the democratically elected board towards the members – the farmers – equitable water distribution should be guaranteed.

In both countries WUAs have been mainly established by international donor agencies in the framework of agricultural development projects with the mandate to rehabilitate tertiary irrigation systems that were previously managed by the state or collective farms. In Kyrgyzstan, development of WUAs started in the mid-nineties. The country-wide development of water user associations has taken place in the framework of World Bank and ADB projects. In order to help implementation, in 2000 a WUA support department has been created at Department of Water Management and at its branches at regional and local level. In 2002, the “Law on Water User Associations” was passed by Parliament. By April 2004, already 59% of the irrigated land area in Kyrgyzstan has been managed by 353 WUAs (Otdel podderzhki AVP 2001; Hassan et al 2004; Kozhiov 2004).

The first projects to establish Water User Associations (WUAs) in Tajikistan were started by the World Bank in 1999. The implementation agency is the especially established Center for Farm Privatization Support (CFPS) at the Ministry of Agriculture. Beside the WUAs set up by these top-down oriented programs, there are many bottom-up projects at local level. In those projects, WUA development is part of community development. These projects are implemented mainly by international NGOs. There are no exact and official data on how many WUAs exist in Tajikistan as only the big projects (funded by World Bank, ADB, USAID) are coordinated by the Ministry of Irrigation and Water Management. Based on data provided by the CFPS, ACTED, Winrock, Aga Khan Foundation, Mercy Corps, and German Agro Action on their WUA activities, it can be estimated that in 2005 about 100 WUAs existed, managing less than one fifth of the total irrigated land (Sehring 2006). Only at the end of 2005, a Law on WUAs was approved.

The WUA reform is in both countries almost exclusively implemented by donors. These projects were not designed to assist implementation of national reforms decided on before, but to create counterparts for rehabilitation projects in order to achieve sustainability with the legal foundations only agreed on afterwards.

#### *Irrigation service fees (ISF)*

Irrigation service fees are fees raised to cover the cost of the service of irrigation water delivery, not on water as a resource as such. In Kyrgyzstan, such fees had already been formally introduced in 1995. However, due to the enduring refusal of the Parliament to approve a law on the amount of ISF, a cost-recovering tariff could not be decided on and the final water tariffs for agriculture have only been established only in 1999. Simultaneously, the state reduced its apportionment of funds to 50% of the expenditures of the local water departments (*RaiVodKhozes*). The other 50% have now to be covered with ISF. However, this fee is rather symbolic. It covers approximately only about 20% of the actual O&M costs. The fees have not been increased since then as respective laws have been rejected by the Parliament (Dzhaylobaev, 2003: 69-70). With the 2005 Water Code, the authority to determine the height of the ISF was transferred to the Government.

In Tajikistan, volumetric ISF was introduced in 1996 by Presidential decree on a reduced level. The objective was to create awareness first and then strive gradually to full cost-recovery. Consequently, the amount of ISF was raised gradually. The current level can cover about 30% of the actual costs (Kholmatov, 2003: 153). Local water agencies are since 1996 expected to cover part of their costs by ISF.

Although the decision to establish ISF was in both countries made more than ten years ago, their implementation, the collection of the water fees from the farmers, is far from being fully realized. In Kyrgyzstan, water user associations (WUAs) are now in charge for collecting ISF from their members and transfer it to the *RaiVodKhozes*. Alymbaeva (2004: 11) shows an average collection rate in WUAs of 53%. In areas without WUAs, the collection rate is even less as the *RaiVodKhozes* do not have the staff capacities for individual collection from the farmers. For Tajikistan, payment estimations by different officials for the years 2002/2003 range from 30% to 56%. The 2006 Water Sector Development Strategy of the government mentions a 60% collection rate (MIWM, UNDP and EC-IFAS, 2006: 18). Whether payment is better in those areas where WUAs have been established and are responsible for fee collection cannot be said as no survey data exist and expert statements were contradictory.

This short analysis thus shows a discrepancy between policy decisions and policy implementation in both states: Both countries have a number of formal policy decisions but both countries have not successfully implemented a comprehensive reform until now. Some reforms need a long term perspective and might achieve better performance in future, notably the irrigation management transfer to WUAs. But even reforms such as the introduction of ISF, which have been started around ten years ago in both states, are still not fully implemented. Water Codes have been approved without the necessary by-laws to make them work. How can this be explained?

#### **Variables of water institutional reform**

When we consider water as a governance issue and acknowledge its interdependency in a complex wider governance structure, it is obvious that this wider governance structure beyond the explicit water laws and organisations has an impact. This general institutional setting in both countries is characterized by a conflicting co-existence of formal

democratic mechanisms on the one side and authoritarian and personalistic leadership patterns, clientelism, and corruption on the other side.

Based on qualitative field research in Kyrgyzstan and Tajikistan, four factors were identified that impact water governance and the reform processes. Three are external to the water institutions and part of the general political and socio-economic setting: the institutions of decision-making, the conditions of the agricultural sector, and the local governance institutions. The fourth one is internal: the contradictions between the different water institutions.

### *Institutions of decision-making*

The institutional design of the decision making process encompasses all formal and informal rules that regulate which actors get access to the decision making processes and their interaction. Decision-making processes in neo-patrimonial states are characterized by strong dominance of the president and his circle and by dominance of particularistic interests in contrast to common welfare interests. In both countries, the Parliament is not a major actor in water policy. The authoritarian tendencies are reflected in both new Water Codes where the competencies of the Parliament were further reduced (Kyrgyzstan) or completely withdrawn (Tajikistan). In Kyrgyzstan, however, Parliament hindered the implementation of water fees, and it once became proactive in decision-making with the Law on Transboundary Waters. Yet, this law is not applied and can be considered merely symbolic.

In Kyrgyzstan the decision-making is more open than in Tajikistan and more actors have the possibility and the capacity to participate, e.g. different actors from state agencies, civil society and academics, as well as donor organizations. However, agenda setting and lead in policy formulation are dominated by the president. Under these circumstances, other actors are restrained to veto-playing: they have the power to oppose policies they regard as being against their interests, but they do not have the power to be agenda-setters. This is done by the government and by donors. Those reforms that are implemented (ISF, WUAs, at least on paper also hydrographic management) are based solely on Presidential decrees, while those issues where more actors were involved (Water Code, National Water Strategy) got stuck already in the decision-making process. The organizational reforms are most contested, as they threaten the self-interest of those involved in decision-making: "The fate of the Ministries depends on state budget allocations. To get money from the state, the ministry needs functions and competencies. All ministries want money, hence they want more responsibilities. Therefore many ministries have many functions for water and nobody wants to give them away. (...) Concerning the new Water Code: everybody is only looking: Do I still have my function? No? Then I will be against it." (Independent water expert, Bishkek, 09/28/2004). In fear of further budget cuts, all agencies tend to resist reforms that would reduce their competences and only agree to law proposals where their interests remain preserved. This explains the difficult process to develop new framework laws and strategies.

In contrast, in Tajikistan the decision-making process is more closed. NGOs are only active in the implementation process (as counterparts of international donors) while they as well as academics hardly participate in policy debates. Without any considerable participation and public debate, laws and policy strategies were developed and approved considerably faster than in Kyrgyzstan.

International donor organisations in both countries are influential actors in decision-making and actively participated in or even dominated the drafting of the respective Laws on WUAs, the Kyrgyz Water Code, and the Tajik Water Sector Development Strategy. But beside their active involvement, donors also exert indirect influence. First,

through their financial budget support, as the following quote from Kyrgyzstan illustrates: "The one who pays, orders the music" (Senior official at the *DepVodKhoz*, Bishkek, 09/11/2003 - The budget of the water sector is provided for 90% by donors). Second through the objectives they formulate in their projects and to which all those must orient who want to be included in projects. This influences problem perception and agenda setting.

#### *Institutional conditions of the agricultural sector*

The agricultural sector is the direct economic and social context in which most water institutional reforms are conducted. The organization of agriculture in Kyrgyzstan and Tajikistan is in a process of change. Just as in the case of the water sector, implosion of the USSR presented a critical juncture to agriculture which had been organized in huge collective and state farms (kolkhozes and sovkhozes). After independence, both states started to conduct a land reform. Kyrgyzstan conducted a relatively quick and radical land reform. 75% of the land was distributed to the population, since 1998 private ownership of land has been possible. However, the land plots are generally too small for cash crop cultivation and are mainly used for subsistence production. In Tajikistan, the reform process is slow and occurs mostly only on paper without practical impacts. State production prescriptions on cotton and tobacco and old farm structures and dependencies are still in place. The new so-called collective *Dekhkan-Farms*<sup>5</sup> are often only quasi-privatized: they are managed in the same style of the former sovkhoz or kolkhoz (FSK) before and the changes can be considered as only cosmetically (new name). In many cases, farmers themselves are unaware of the reorganization.

The privatization of state and collective farms did not only change the agricultural sector; it was also - besides the state budget crisis - the main stimulus for an irrigation reform. As thousands of small farms came into existence, the new situation was a challenge for water management in the irrigation sector. While before the large-scale sovkhozes and kolkhozes had been responsible for water distribution on their areas and the maintenance of the on-farm canals, now the newly emerged small farms had to be supplied individually with water. As nobody felt responsible for the operation and maintenance (O&M) of the (former) on-farm channels and due to the lack of financial means, investments in infrastructure maintenance almost stopped, irrigation systems deteriorated and water use was not controlled anymore. The new situation demanded new forms of management.

On the other side, the institutional constraints of the agricultural sector seriously limit the feasibility of water governance reforms. First to mention is the economic situation: despite the different reform efforts, the output concerning the actual living conditions of the farmers is similar in both countries: rural poverty is widespread and the sector characterized by a reliance on subsistence agriculture, de-capitalization, and wide-spread barter-economy. In Tajikistan, many cotton farmers are deeply indebted to private businesses that offer pre-finance as well as to the state (Hassan et al. 2004: 30; DFID, Mott MacDonald 2003: 10-9; AAH 2003: 12-15). This impedes the introduction of monetary mechanism such as ISF. Many farmers are too poor to pay and many officials have an understanding and do not sanction non-payment. Also unauthorized water withdrawal increased and is often tolerated, so that it even can be considered an informal institution in some places. The barter economy is expanded to the water management: water fees are for a considerable part paid in kind, mainly in crops and other agricultural products, but also by maintenance work on channels. This raises transaction costs for the local water agencies.

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<sup>5</sup> *Dekhkan* is the Tajik word for farmer.

Apart from this fundamental constraint, there are several other impacts. The current farmers are usually former specialized FSK workers without training in farming. They often simply do not know how much to irrigate and therefore use as much water as possible leading to wasteful water usage. At the same time, the experts of the specialized academic institutes lack the means to train people at the local level. Inefficient water use is therefore at least partly rooted in lacking access to knowledge about irrigation techniques and not only in lack of awareness that could be overcome with fees. Another aspect is that - similar to most CIS countries - the privatization process in agriculture was characterized by non-transparency, corruption, clientelism, and injustice in land allocation. Influential and wealthy persons could acquire better and larger land plots due to their networks and their better knowledge of procedures and laws. These aspects also ensure water access, more than ISF payment does: if a farmer has a land located at the very end of a deteriorated channel, water will hardly reach it even with payment, but a farmer upstream will get it.

In Tajikistan also the still existing dominance of the FSK structures hinders Good Water Governance. Because of the state quotas for cotton, farmers cannot turn to less water-intensive crops even if they wanted to. Also, there is less of an incentive to invest in O&M through ISF payment or WUA commitment when the channels and irrigated land are not perceived as “own”, but as that of the FSK. Therefore, the Kyrgyz environment is more suitable for enabling reforms that implicitly assume independent farmers as decision-makers on their crop choice and water use. The empowerment of water users, which is the aspiration with WUAs (and to a certain degree also with ISF), cannot be successful without the empowerment of the same persons as farmers. Sound agricultural and land reform therefore turned out to be a necessary precondition for water reform as far as it addresses agricultural water usage.

#### *Institutions of local governance*

Local governance has to decide on regulations of the common issues of citizens of a certain community to address their interests and needs, such as infrastructure, housing, communal water supply, schooling, cultural activities, small scale economic development. Local governance institutions regulate how decisions on these issues are taken and implemented. They affect water institutional reform as they – like the agricultural sector – present the concrete institutional environment where policies have to be implemented. This factor hence influences, especially the implementation of those new rules of water governance that address the local level of water governance such as user participation, fee collection, or local-level hydrographic management. As these mainly concern rural areas, I will confine my analysis to local governance institutions in rural settlements.

In both countries, local governance needed to be re-organized after land reform: The FSK was not only an economic entity and work place, but had also administrative, social, and cultural functions. It was responsible for health care, education, social welfare, recreation. Their formal dissolution hence was not only an economic restructuring, but also (formally) abolished “the principal unit of social organization” (AHH 2003: 1) in rural areas. Both governments introduced formal local self-government, the *Aiyl okmotu* in Kyrgyzstan and the *Jamoat* in Tajikistan. Yet, both have only limited competencies. The *Jaomat* does not even dispose of a real budget. In Kyrgyzstan, the *Aiyl okmotu* is directly involved in local water management as it got the O&M of the on-farm channels after the FSK assigned. Beside these, informal political institutions on local level are of importance and represent certain cultural norms. So, the authority of elders in local decision making is represented by the *mahalla* committee in Tajikistan and the *sud aksakalov* (court of elders) in Kyrgyzstan. These informal institutions go back to pre-Soviet times, were tolerated in the USSR and gained importance in the transformation phase, in Kyrgyzstan the court of elders was even formalized. Given the described importance of the FSK, resp. its follow-up organisation, it is not surprising that it also still shapes power relations in rural places. The local arena is characterized by personalized leadership and patronage



politics. Patronage networks of the FSK are still existent and often overlap with 'traditional' institutions such as elders, as Soviet organizations often replaced traditional institution only superficially. Although in Kyrgyzstan local mayors have been elected since 2001, they owe their position mostly to patronage networks. The unchallenged position of local patrons reflects a missing experience in becoming pro-active and a reliance on authorities as a main characteristic of the political culture (Giovarelli and Akmatova, 2002; GoK n.d.: 44f; Beyer 2006; Freizer 2004; Abdullaev 2004).

The local governance institutions influence those reforms that have to be implemented locally, especially WUA establishment. WUAs are externally and internally co-opted by local institutions in both countries. 'Externally' means that they are not perceived as and do not act as independent organizations, but rather as part of the *Aiyl okmotu* (in Kyrgyzstan) or of the cooperative that replaced the FSK (in both) and are often also personally interwoven. 'Internally' means that the positions of chairs and in the council are filled with the key actors of the village and reflect the existing power asymmetries. The WUA heads generally feel more accountable to the donors that give grants and training than to the members. The council is rather weak. Water users have little knowledge of the exact task of the WUA and awareness of their membership rights. In Tajikistan, many of the farmers interviewed were not even aware that they are members of a WUA. Such observations were also made by the studies of Hassan et al. (2004: 34ff) and Alymbaeva (2004: 32f). This reflects the general situation where the most part of rural population is excluded from information and decision-making in the villages. WUAs in some cases foster power accumulation by those already powerful and enable a misuse of this position, which means favoured water distribution to their own network and insecure water access by the marginalized part of the population. The manner in which projects are typically implemented by donors and NGOs strengthens existing power patterns since donors rely on the village elite to realize their project in the given timeframe.

It is important to note that the close interrelation of WUAs with informal and formal village organizations may have positive aspects: when existing institutions are involved, it may contribute to the acceptance of WUA and its principles by the population and enforcement by the village authorities. It can be assumed that when ISF are paid and WUA decisions are accepted, it is mainly because of this integration of newly introduced institutions into existing ones with an accepted authority to solve conflicts of power to enforce rules. However, the character of the new institutions changes during this process.

As access to grants is often the main incentive to set up a WUA, donors get incorporated into the patronage logic. Reforms are conducted on paper in order to get access to urgently needed financial resources and technical assistance. In Tajikistan, where the role of the local patron was more uncontested than in Kyrgyzstan, at least in the case study, the ambivalent role of donors is especially visible. They become incorporated into the logic of patronage and rely on local development brokers. With the incorporation of WUAs into the patronage system, there is the danger that they will stop functioning as soon as the financial support by the "patron", i.e. the donor agencies, ends. It is questionable under these circumstances whether these reforms will be sustainable.

#### *Water-institutional linkages*

Beside these three factors, a last factor influencing water governance are the internal interdependencies between water institutions.

As was outlined above, water institutions are defined as water policy, water law, and water administration. These in turn consist of formal and informal institutions. Reform efforts address water institutions as a whole, but specific measures are directed at certain institutional elements. For example, irrigation management transfer to water user associations (WUAs) includes reform of water policy (such as decisions on

decentralization and participation), water law (such as legal regulations for WUAs, conflict resolution mechanisms, etc), and water administration (such as change of organizational structure, new role for staff, etc.). These respective institutional elements are closely interrelated. Saleth and Dinar (2004) conceptualize this interdependency of water institutional elements for general performance and termed it “endogenous linkages within water institutions (institutional linkages)” (2004: 101). These endogenous linkages are further differentiated: intra-institutional linkages are those within one institution, e.g. between different legal regulations in water law or between staff payment and capacities in water administration. Inter-institutional linkages are influences between different institutions, e.g. between legal regulations and administrative capacities.

In the two case studies, the linkages have a negative impact on reform processes when they lead to contradictions between water policy, law, and administration. One reason are different time horizons of change: the legal process for establishing water rights requires more time than a presidential decree on a new policy; and informal rules within the water institutions cannot be changed by a single decision but require long-term strategies. A more important reason is that reform efforts focused in both countries on water policy and water law and neglected water administration. Therefore, in Kyrgyzstan as well as in Tajikistan the most serious endogenous obstacle comes from the water administration.

Both countries inherited the administrative structure of the Soviet Union and this legacy still shapes today’s administrative culture. As public administration in general, also water administration still follows a very hierarchical model with strong centralization and lack of horizontal coordination, dominance of the presidential administration, weak position of local authorities, a top-down command style, resistance to new management methods, lack of self-initiative, lack of understanding of the new role of the state (e.g. in cooperation with NGOs) by the officials, and a general low level of transparency and accountability (GoK n.d.: 43; GoT 2002: 18f; ISRI, Socinformburo, FES 2004: 38f). This has an impact on the implementation of reforms. First, it contradicts principles of stakeholder participation and decentralization of competencies outlined in WUA reforms: officials generally perceive WUAs as subordinated and not as independent and equal partners. Second, it does not encourage compliance with ISF payment, as there is often no comprehensive information on reason for payments given to water users and no accountability exists with respect to guaranteed water delivery in case of payment. Third, it is a major obstacle to organizational reform towards more intersectoral coordination and hydrographic management, as these are perceived to threaten the self-interest.

Despite the importance of water administration for overall reform (the central level of bureaucracy is involved in rule formulation, the meso level in implementation), the importance of these inter-institutional linkages was not adequately considered in the reform programs. Reforms of water administration in the strict sense are only conducted in Kyrgyzstan. However, the impact of these and other capacity building programs is hindered by the existing patronage and hierarchical patterns and some reforms were rather counterproductive (as the donor pressure to dissolve the Water Ministry).

In Tajikistan, the water administration has widely been marginalized in reform activities. The WUA reform, that directly affects the local water departments, has been so far mainly implemented by INGOs, which tend to reduce cooperation with the state water agencies to a minimum and prefer to establish CBOs (community-based organisations) as counterpart, so that the meso level is marginalized in the whole reform process and lacks knowledge on its new role and responsibilities. However, exactly this meso level is critical: the level of provincial and district bureaucrats who have to implement reforms or circulate information. This “messy middle” (Mehta et al. 1999: 16) is the place where formal and informal structures meet, where the weaknesses of the administration are more visible and more effective than on the higher levels. It is the provincial prosecutor who does not know how to apply a law. It is the director of the local administration who

does not accept the WUA as an independent organization. This level is critical for every policy reform. Yet, in general, it is neglected in the reform processes.

Additionally, the whole water administration is affected by a brain-drain of its qualified staff to donor agencies. This seriously weakens the capacities. In the words of a local NGO director: “There are no experts (...). There, where experts should work are none -no water experts. All normal water experts have been taken by the international organizations” (NGO representative, Dushanbe, 08/25/2004).

In sum, in both countries incoherency between the different water institutional dimensions is especially striking between the water administration on the one hand and the law and policy dimensions on the other. The administration actively resists reforms that threaten its status quo and hinders decision making or implementation (especially in Kyrgyzstan); it sometimes also “unintentionally” does not implement reforms due to lack of information and training in new processes, roles, etc. (especially in Tajikistan). This ultimately results in no ownership of the reform processes with a reliance on donors to implement. The limited activity of the administration to implement reforms and reform itself, is – even if indirectly - supported by the activities of donors that partly take over its tasks.

### **Path dependencies and institutional bricolage**

The preceding sections showed how context factors and internal discrepancies influence water governance. Is it under these conditions possible for Water Institutional Reforms to be effective in achieving Good Water Governance? At the beginning of the article several assumptions on institutional change and persistence were formulated, based on Historical and Sociological New Institutionalism. Path dependence factors could lead to persistence of old water institutional patterns and reform failure or old and new elements could get combined and re-interpreted in a process of institutional bricolage. With the comparison of the two countries, it is possible to make inferences: Are the shared historical legacies in both countries so strong that they lead to path dependency, and hence, to similar reform results? Or is the bigger juncture in Kyrgyzstan with more formal democratization and decentralization and economic liberalization enabling more options for a path change, which may be not possible in Tajikistan?

Historical legacies are still shaping water institutions. In the first years, water laws perpetuated Soviet regulations. The water administration is still characterized by a predominantly hierarchical culture, strong fragmentation, lack of horizontal coordination and no experience in own policy formulation – legacies from the Soviet Union. The immediate context with re-organization of administrative structures, constant curtailing of financial allocations, and donor pressure to reduce state expenses fosters the predominance of organizational self-interest in the preservation of the status-quo. These aspects are similar in both countries. In Kyrgyzstan, these old administrative patterns are stronger threatened by reforms, what consequently also led to more resistance and the blockade of administrative reforms, as could be seen in the processes of the national water strategy and the Water Code. Also the way water management at local level factually functions seems to be rather path-dependent as new institutions (WUA, ISF) are undermined by informal ones even if they on paper exist. The economic aspect to introduce ISF is not implemented because the de-capitalized agrarian sector does not provide the necessary economic and institutional preconditions. Additionally, it contradicts established norms of usage. Instead, informal practices such as patronage and accepted but unauthorized water withdrawal ensure water access. The political aspect to make WUAs an instrument of participation and equitable water distribution threatens existing patterns of political culture and societal norms. WUAs are introduced, but are incorporated in the patronage systems – and the donors as well. While it would be the task of the WUA to control water withdrawal, guarantee timely water delivery to

those who paid, and punish violation of the rules, this is not fulfilled. But when the WUA chairman is local patron he can ensure compliance to water rules by the authority of his position.

Does this mean that formal changes do not have any meaning at all and are undermined in both states similarly by path-dependent, informal patrimonial practices? The detailed look shows differences between the two countries. To grasp these differences and developments, the concept of institutional bricolage is more appropriate than the other two mentioned as it allows tracing back continuities as well as changes and the interaction of both. Based on this, the strategic options these interactions and co-existences offer for the actors can be assessed.

Institutional reform in water governance is rather a complex process of institutional bricolage. Actors in decision-making as well as in implementation influence the outcome of reform through their selective adoption of certain rules which seem appropriate or instrumental (as water fees or transfer of responsibilities), but do neglect others that do not seem compatible with the existing logics (as democratic participation). Through bricolage, different logics are mixed: fees are paid, but not because of the logic of the market economy, but because the patron or the *aksakals* with their informal authority demand it. A formal democratic WUA is established, but the way it distributes water is already predefined by the land plots allocated before to the village elite. But informal institutions are not only a hindrance to new institutions; they can also foster some elements when they are merged: WUAs are active when the heads of local patronage networks are committed to it. ISF are paid when local authoritative persons demand it and not because of the market logic associated with it. Consequently, reforms are implemented, but incorporated into the existing institutional logic that is in conflict with the original objective. So even those new institutions implemented get a new meaning. And also existing informal institutions change: the role of a local patron transforms into a development broker. Traditional collective labor (*hashar*) becomes formalized participation mechanism in donor projects. Rather than providing two alternative systems, both are merged: Reforms to introduce new institutions rely on old institutions.

The actual outcome of water institutional reforms includes different elements derived from pre-Soviet (clientelistic patronage as mode of resource distribution), Soviet (role of the collective farm, free access to basic resources), and post-Soviet ([pseudo-]participatory processes as rules demanded by donors) institutions. In the process of bricolage, incentives (access to financial and technical resources of donors, enhancing of power position as broker) as well as appropriateness (existing informal institutions) and path dependencies (administrative culture) play a role for the decision for or against an option. Hence, even a context in transformation does not present a situation where institutions are completely in flux and easily changed, but where path-dependent continuities play a role, though there is some space for actors to modify them. The size of this space depends on the degree of juncture in the country. Hence, while there are many similarities between both countries, it can be concluded that the “institutional corridor” in Kyrgyzstan is broader. In close and overlapping institutional settings such as agriculture and local governance reforms were conducted, which broaden the options and strategies for actors beside the patrimonial ones - the juncture of the regime collapse developed to a more critical one than in Tajikistan. There, land and decentralization reforms stayed merely cosmetic and many old structures remained unchallenged; hence the number and diversity of elements, which actors can use for *bricolage*, are much more restricted.

## Conclusion

This paper analyzed water governance in Kyrgyzstan and Tajikistan. It showed the broad range of water governance institutions and actors: International donor organizations and NGOs entered the national policy arena and established their own rules through

conditionality and project regulations. At the national level, primary policy directions are decided on by the government, experts, and to a very limited degree, the respective Parliaments. At the provincial level, water agencies implement, but also have decision-making power in their area, e.g. on water distribution. At local level, beside the water agencies, formal and informal local governance bodies interact with each other and set the framework to which water users orient themselves. Water User Associations (WUAs) are established as new non-state actors whose roles were initially vaguely defined in both states and are still contested in practice.

Both countries strive to overcome Soviet water governance modes and started a number of reforms since independence. Their content is in line with the Good Water Governance objective defined internationally, they strive to establish water institutions that guarantee efficient, equitable, and sustainable usage of water and democratic governance structures. However, it was shown that these objectives are difficult to reach in a neo-patrimonial setting with only limited democratic features. The paper discussed four factors that shape water governance: the institutions of decision-making, the conditions of the agricultural sector, the local governance institutions, and water-institutional linkages. In each, formal and informal rules of the legal-rational as well as the patrimonial dimensions that constitute neo-patrimonialism interact with each other and together define the institutional corridor. It was also shown that donors play a considerable role in the policy processes in both countries, in policy formulation as well as in implementation.

In Kyrgyzstan, democratization in decision-making, privatization in agriculture, and decentralization in local governance more realized than in Tajikistan, where these reforms mainly changed only the façade. Therefore the institutional corridor in Kyrgyzstan is broader than in Tajikistan, allowing for more options of bricolage. In this process, on the one hand newly introduced formal rules are adapted to existing institutional arrangements, on the other traditional and Soviet roles and rules are transformed in order to adjust to new conditions and incentives.

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