Corruption Risks in Water Licensing

With case studies from Chile and Kazakhstan

WIN Water Integrity Network
Fighting corruption in water worldwide

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Note to the Reader:

Water resource licensing is increasingly becoming a cornerstone for integrated water resources management (IWRM). Licensing and other allocation mechanisms are important because they underpin who gets access to water and provide a means to manage water fairly, efficiently and sustainably. Water licensing is often in the hands of young institutions operating under new laws and sometimes organised along water basin rather than traditional administrative boundaries.

With growing water scarcity in an increasing number of countries, there is a significantly greater risk of corruption in the water licensing process. This risk, and its underlying factors, are not well understood. This report explores the nature of the risk using a 2007 field study of Chile and Kazakhstan as case studies for risk mitigation. The report was developed by the authors indicated below and thereafter revised by Jan Teun Visscher.

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Photo: Mats Lannerstad

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Photo: Mats Lannerstad

Introduction

Many industrialised and non-industrialised countries are in the process of reforming their water resources management (WRM) frameworks. This includes establishing new institutions, sometimes at new scales (at catchment level rather than at administrative units of districts or regions) with significant decision-making and revenue collection powers. Water licensing is a very important mechanism for these institutions to determine who has access to water and how much they pay to use or pollute it. Water resource licenses, permits or permissions may cover a range of purposes including: regulation of abstraction of surface or groundwater, utilising or changing the course of water through damming or draining, and discharging pollutants into receiving waters. Increasingly, state regulated water licensing replaces other more traditional arrangements where the authority to allocate water was often vested in local traditional bodies. Some licensing arrangements make use of market mechanisms to allocate licences using the argument that this makes water management more transparent, accountable, efficient, equitable and sustainable.

A water licence grants the right to abstract, use or pollute a certain amount of water during a certain time period, subject to certain conditions, and often against a certain fee (Box 1). It may grant the use of a fixed amount (m^3 per day) or a proportional (time) share of a water flow.

Licensing is part of a system to allocate and regulate water resources use. This system includes: the technical management, metering and monitoring of water abstraction and environmental indicators; enforcement mechanisms including punitive actions in case of violations, non-performance or abuse; and mechanisms for complaints.

A licence implies rights and responsibilities for users and the issuing authority. It presupposes effective water control down to the level of the licence holder. If the licence is for a fixed amount (m^3 per day), this amount needs to be available as well as the technical ability to measure abstraction. If the licence is in proportional (time) shares, the infrastructure must allow for regulation of the water division (water dividers).

Water licensing is vulnerable to corruption and can be manipulated by the public officials responsible for licensing and those applying for a license. There is however a lack of systematic enquiries on the extent of corruption in water resources management (Lewis and Lenton, 2008) and water licensing processes, or the effectiveness of measures taken to

Box 1: What is a water licence?

A water licence provides an authority with a right to use or pollute surface water or groundwater. Use may be consumptive (where water is not returned to the source e.g. irrigation) or non-consumptive (hydropower, cooling). A licence normally identifies the water source, the location of abstraction, the amount of water to be impounded, diverted or abstracted, the priority of the "water right" established by the licence, and conditions under which the diversion and use must take place including limits on use, time limits and other restrictions such as drought conditions.

Table 1. Risk areas for potential corruption in water licensing	
Risk area	**Explanation of risk**
Licence application process	Potential to influence the awarding process
The content of the licence	Possibility to influence amount of water, timing, kind and amount of pollutant, safety margins, etc.
Bidding and trading procedures	Opportunities to influence the bidding mechanism and to corner the market
Enforcement of licence	Possibilities to avoid consequences of infringements (poor control measurement, paying bribes, etc.)

Box 2: Key characteristics of case study countries		
Indicator	**Kazakhstan**	**Chile**
Total population	15 million	16 million
GDP 2007 (Purchasing power parity)	USD 10,829	USD 13,885
TI Corruption Perception Index (2008)	2.2 (ranking 145)	6.9 (ranking 23)
Average annual precipitation	250 mm/year	1 522 mm/year
Total actual renewable water resources	7 086 m^3/cap/yr	93 690 m^3/cap/yr
Total water withdrawal	2 263 m^3 per capita	803 m^3 per capita
Agricultural water use (% withdrawal)	81.7%	63.5%
Domestic water use (%)	1.7%	11.3%
Industrial water use (%)	16.5%	25.2%
Total access to improved water supply	86%	95%
Total access to improved sanitation	72%	91%

Sources: FAO (2007) and WHO/ UNICEF (2006)

prevent corruption through measures such as fair procedures, accountability of officials, and publishing of licence registers. Even so, we can identify the main areas for potential corruption risks in water licensing (Table 1).

This study contributes to learning more about these issues by exploring the situation in two countries. One is Kazakhstan with a state-dominated water sector in the midst of economic and institutional reform, including turning former farm co-operatives into individual farm enterprises. The other is Chile which started to liberalise the water sector in 1981 and is seen by many as the model for market-based initiatives (Dourojeanni and Jouravlev, 1999).

In both countries, water licensing is situated in a dynamic legal-administrative context and environmental reforms have recently been introduced. The paper reviews these aspects and concludes with recommendations and suggestions for future preventive measures that can be applied to strengthen transparency, integrity and accountability in water resources licensing. Key characteristics of the case study countries are seen in Box 2.

Photo: Kai Wegerich

Photo: Manfred Matz

Case Study Methodology

This report is based on a rapid survey carried out between 22 July and 15 August 2007 by two teams in Chile and in the Talas river basin in Kazakhstan. In total, 80 semi-structured and open interviews were held with licensors issuing water licences, water licensees, and other informants including NGOs, private sector managers, and the press to explore corruption risks in water licensing. The initial interviews were held with 'gatekeepers' working in the sector known to the local researchers. From these first interviews other names were derived for subsequent interviews. In addition some field observations were possible by joining monitoring field visits which together with some literature review allowed for triangulation of information. Because the topic is sensitive, some information was provided under guarantee of anonymity. Where feasible this information was checked and included if validated by other respondents. The lead researcher was an 'outsider' with knowledge on the topic, working together with local researchers and water experts.

Reflection on study method

The rapid assessment approach allowed reaching well informed key actors in Chile and Kazakhstan. A lot of insight could be gained in a short time because the water sector is relatively small in both countries. However, a more comprehensive study is needed to understand all sub-sectors in detail. This may be more easily achieved in countries with strong anti-corruption NGOs such as Transparency International chapters and multi-disciplinary university research groups interested in the topic.

In Chile which has a tradition of anti-corruption research, it proved very feasible to talk openly about it with NGOs, indigenous right lawyers and civil society leaders, whereas in the interviews with official institutions or companies, it seemed less advisable to use the word corruption openly. In Kazakhstan, the NGO sector is less developed and there is no significant tradition of corruption research or anti-corruption activism linked to water. In this country the team was accompanied by government staff during the interviews which, because of the sensitivity of the subject, may have restrained some of the informants in voicing their opinions. Also transport was a problem because of the large distance to research sites.

It proved important to plan interviews well in advance due to busy schedules of the actors involved. The combination of external and local researchers worked very well. The local researchers had a good understanding of the local setting and history, good contacts, and longstanding relationships which fostered trust during the interviews. Having an external researcher also proved important as it sometimes helped to get appointments. Sometimes it proved easier for informants to talk to a "stranger." Another important aspect is that the relative risk for an external researcher is smaller. A local researcher may lose job opportunities by researching and publishing on corruption and may face the threat of lawsuits and physical violence. A combined team of local and foreign researchers is therefore also recommended for future research.

Case study 1: Kazakhstan

Kazakhstan is a large, ethnically and culturally diverse country situated in Central Asia with a low population density of 5.4 persons per km^2. It is not a water scarce country even though a large part of the country is semi-arid. It declared itself independent in 1991 after having been a Soviet republic since the 19th century. Economically it thrives as an important oil exporter with recent annual growth rates of some 10 percent. It has developed its industry with oil revenues, but agriculture remains important with a 'water share' of 82 percent.

The country is facing important Water Resource Management (WRM) problems which include inefficient water use in agriculture, inadequate wastewater treatment, and negative effects of the Soviet legacy of massive water diversion from the rivers Syr and Amu Darya for cotton irrigation resulting in the shrinking of Lake Aral. WRM in Kazakhstan is best described as being fragmented, underfunded and poorly governed. A decade of budget and staffing cuts has had a dramatic effect on the authorities' ability to manage water (Hannan, 2008). However, with support from, UNDP, the Global Water Partnership, and others, Kazakhstan has made some significant improvement including the passing of a new Water Code in 2003 aiming to *'achieve and maintain environmentally friendly and economically optimal levels of use and protection of water for conservation and improvement of living conditions for population and environment'*.

The code prioritises drinking water supply and designates the Water Resources Committee, under the ministry of agriculture, to issue all approvals related to surface and groundwaters. It also establishes the principles of river basin councils (RBC), which are advisory bodies of governmental organisations, water user associations (WUA), and NGOs set up to jointly resolve issues and implement basin agreements. RBCs have now been established in all eiaht river Union funded Tacis programme, while the Organization for Security and Co-operation in Europe (OSCE) supports WUAs in obtaining rights and aims to create a transboundary basin council for the Chu and Talas Rivers. It is hoped that these efforts will increase access to information, and public engagement in the decision-making process.

Water allocation and licensing

According to the code all water resources are owned by the state, which decides about its use and disposal. Groundwater abstraction however is basically still unregulated (Allan and Steijl, 2006). The code distinguishes between general and specific uses of surface water. General use is a public right and is defined as using the water without applying technical means that have an impact on water conditions. Special use is defined as requiring facilities or technical