

Water governance: context is crucial

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Introduction

Humanity faces daunting water management challenges, as demand for water hits limits of supply and competition increases between agriculture, industry, cities and the environment. Climate change, too, will affect the availability of water.

Worldwide, the focus of conversations about water governance has moved from resource development to resource management. To be effective, water governance needs to directly identify and respond to local problems and needs. It needs to take into account the local institutions, knowledge, socio-economic, political and environmental conditions.

The proposed Sustainable Development Goal (SDG) on water recognizes the need for better governance of water resources by setting out targets for integrated water resources management and improved water management across national boundaries.

This paper assumes that good governance of natural resources, including environmental sustainability (not mentioned in the SDGs) is accepted to be a cornerstone of sustainable development, with Integrated Water Resources Management (IWRM) providing a tangible target.

People view the concept of water governance in different ways. Some see it as the interplay between water laws, policies and institutions, as these affect the working of a water economy. According to the

Global Water Partnership, the term refers to “the range of political, social, economic and administrative systems that are in place to develop and manage water resources, and the delivery of water services, at different levels of society”.

Box 1: Principles and practices of Integrated Water Resources Management

Principles: Integration, decentralization, participation, economic and financial stability, and the river basin as the unit for decision-making.

Practices as packaged: Overall water policy and law, water rights, water licensing, permits and pricing, water allocation, participation in decision-making, restructuring territorial organization into basin-wide organization.

However, water governance is also concerned with the processes of rule-making and enforcement, tackling the political economy and managing cross-sectoral linkages. It is not something the state creates by fiat; rather it is an ongoing evolution that is shaped by the inner workings of the society.

Internationally, great store has been placed on implementing IWRM as a means to improve water governance, hence its selection as a proposed SDG target. The IWRM principles (Box 1) certainly provide a good overall framework for how water resources should be managed.

However, in applying these principles it is crucial to take a flexible approach and to take the local context into account (Giordano and Shah, 2014;

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Molle, 2009). Although, reaching consensus about different views can be applied to local problems where people are engaged in managing their scarce resources, sometimes participation is not necessary for achieving viable solutions.

For example, China’s Hubei Province, has had remarkable success with a top-down approach to improving water management by rice farmers. Faced with the growing demand for water caused by rapid urbanization, officials simply allocated more water to cities, forcing farmers to respond by building their own ponds to capture runoff and reducing the overall amount of water they used for irrigation. Rice productivity increased and water productivity skyrocketed. However, while successful, this hierarchical approach is incompatible with IWRM’s principle of inclusive decision-making.

The implementation of IWRM as a prescription for poor water governance and management has been largely donor-driven, with limited adjustment to on-

water economies that are hard to regulate and govern, while rich countries have highly formal water industries that function within a robust and relatively well resourced legal regulatory framework.

Most water users in a highly formal water economy are secondary users, connected with the water governance regime through organized service-providing primary users amenable to regulation. Those in a predominantly informal water economy are mostly primary users, drawing water directly from nature to meet their personal, as well as productive, water requirements. Implementing formal approaches to water management through laws and higher-level institutions will not work without a basic level of infrastructure and intermediation being in place (Mukherji, Shah and Giordano, 2012).

Formalizing informal water economies is often seen as a route to improving water governance. The intent of externally driven IWRM discourses is

	Hindering factors	Helping factors
National and local authority structures	Weak	Strong (China, Viet Nam)
Organization of the groundwater economy	Numerous small users	Few large users
Proportion of the population dependent on farming	High	Very small
Groundwater’s significance to national food and livelihoods security	High	Low (USA, Mexico, Spain)
Capacity, reach, and effectiveness of water bureaucracy	Low (South Asia)	High (China, Mexico)
Perverse incentives in groundwater irrigation (energy and tube well subsidies)	Present (India, Iran, Syria, Mexico)	Absent (China, Pakistan, USA, Australia)
Productivity of groundwater irrigation	Low (South Asia)	High (China; Mexico, California, Spain)

Table 1: Factors influencing groundwater governance regime.

Source: Shah, 2014

the-ground realities. Yet understanding the physical, social and political context in which IWRM is implemented is vital. For example, the level of economic modernization of a society is a critical consideration. Poor countries have highly informal

often to transform, all at once, a predominantly informal water economy into a predominantly formal one. However, formal water sectors usually emerge through a long process of economic growth and the resulting transformation.

Evidence from across the world suggests there is no shortcut for a poor society to morph its informal water economy into a formal one; the process by which this happens is organically tied to wider processes of economic growth. When countries try to force the pace of formalization, interventions come unstuck. They are more likely to work if authorities aim to improve how an informal water economy works (Shah, 2009).

The approach to groundwater governance in any society is contingent upon internal and external factors that policy-makers and implementers cannot ignore (Table 1). Strong local authority structures enable China, for example, to experiment with administrative procedures in a way that Pakistan, which has no village governance structures, would find hard to emulate.

Countries where public systems actively manage the

groundwater economy by pro-actively intervening through demand as well as supply-side initiatives tend to have most enabling factors present. Where hindering factors dominate, groundwater governance tends to be absent, primitive, perverse, or dependent on indirect instruments to achieve a desired outcome without forcing individuals to change behaviour.

When planning IWRM, it's important to focus on the actual water problems within a country and the national priorities. Emphasizing the development of IWRM plans has sometimes diverted attention from investigating the real water needs and instead imposed governance reform. For example, efforts to implement IWRM in sub-Saharan Africa have failed to recognize that most of African agriculture is based on informal water rights. This will likely reduce the responsiveness of African farmers to

SDG targets	Stage 1 – Fully informal	Stage 2 – Largely informal	Stage 3 – Rapidly formalizing	Stage 4 – Fully formal water industry
Target 1 Investment	Invest in local infrastructure to improve water access	Invest in <u>meso</u> -level infrastructure for sustainable development of water resources	Invest in improving water productivity; waste recycling	Invest in 100% coverage in high water quality water service provision
Target 2 Institutional	Make informal water institutions equitable	Integrate informal water institutions with formal ones in private or public sector	Create <u>meso</u> -level participatory water institutions	Create a full-fledged water industry with proactive regulator
Target 3 Policy and legal regime	Establish basic water information system	Establish water policy and legal regime	Establish basin-level water allocation mechanism	Full-fledged basin management authorities
Target 4 Financial sustainability	Establish the principle of water as a social and economic good	Subsidy on operational and maintenance costs to 50%	75% service fee for recovery of operational and maintenance costs of water infrastructure	100% water service as well as resource fee recovered for management, operations and maintenance costs

Table 2: Recommended SDG targets for countries at different stages of economic development.

(Source: Prepared for this paper)

improved water use measures rather than improve the situation. Finding pragmatic solutions to water management problems is more important than following specific principles.

Even within one country, there will be different needs in different regions. For example, India is the biggest user of groundwater in the world, but groundwater management varies across the country. Some drier areas urgently need to regulate groundwater use to make it more sustainable; other wetter areas could help poor farmers boost incomes through better groundwater access.

Often water issues are caused by perverse policies in other sectors, such as energy subsidies. To succeed, a water governance regime needs to take a cross-sectoral approach to managing water resources.

Meaningful indicators, country-level targets and preferably also country-specific indicators will be important, along with global indicators, to stimulate and measure progress. The choice of indicators will be crucial. The danger with indicators is that boxes can be ticked off without any improvement to the situation. It will be important to find pragmatic ways to assess if progress is being made, that plans relevant to the local context are being implemented, and the interventions are being sustained.

Given that the nature of water governance is tied to the overall socio-economic evolution of a country, prescribing a single set of water governance targets for SDG will not work. A more meaningful approach will prescribe different targets for countries at different stages of economic development (Table 2). This realizes that even within a single country, the context varies from one setting to another.

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