



# Good Governance for Good Water Management

Effective management of water resources is vital to sustainable development. Governments across the world have spent considerable effort and resources to move toward that goal. This article argues that good governance is an essential aspect of effective water resource management and one that often receives less attention than it merits.

What exactly is water governance? It usually 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” (Global Water Partnership, 2003). The literature states that governance rests on two core values: inclusiveness (ensuring that all members of the group receive equal treatment) and accountability (ensuring that those in authority answer to the group they serve if things go wrong, and are credited when things go well). For water resource management, governance processes determine decision making about water storage, types of water use, regulation of extraction from aquifers, regulation of discharges, and allocation between competing

uses, including allocations to maintain basic environmental services (see Box, below).

Water resource management faces specific challenges in water-scarce areas, where there is intense competition among users and among different types of use (agriculture versus tourist development, for example, or

agriculture versus instream flows to protect the environment). This results in overextraction of aquifers and overuse of surface waters. Scarcity also concentrates pollution loads. While advocating changes in governance arrangements, we recognize that this type of reform is politically challenging, and that reform efforts often end in stalemate. In this

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## WHAT MAKES WATER GOVERNANCE PARTICULARLY CHALLENGING

Governance is a challenge for any corporation or public service. Water has several characteristics, however, that present additional complications for governance structures:

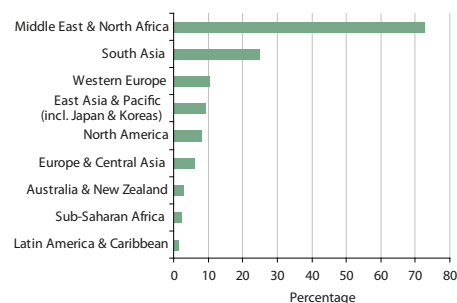
- Water has an emotional and often spiritual dimension for many users.
- Rivers, lakes, coastlines, aquifers, and infrastructure are often common-pool resources; that is, when one member of a group uses the resource it is not available for others in that group and it is possible for members of the group to stop others getting access to it.
- There is significant uncertainty about the amount and quality of water available from year to year, in terms of both stocks and flows.
- Investments in water infrastructure provide a mix of public and private benefits. A dam, for example, provides public benefits such as flood protection, but also stores water for individual households or businesses to use.
- Water management often requires large investments of public funds that are difficult for the general public to evaluate at the planning stage and are vulnerable to capture by special interests.
- Water resources usually must be managed across different time-frames and at different scales (local, regional, national, international).



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to expensive rehabilitation or replacement. Lack of effective stakeholder involvement and a coordinated approach across organizations also limits the benefits of such investments. In addition, repeated droughts have often thwarted these attempts, forcing authorities to cut supplies unexpectedly from farmers that depend on irrigation and to ship or truck water into major cities at great cost because they have insufficient water to serve the urban systems. Many aquifers in MNA and SAR are severely depleted or degraded (see Figure, below). Climate change is predicted to worsen this situation in many parts of the world.

### Percentage of Total Renewable Water Resources Withdrawn, by Region



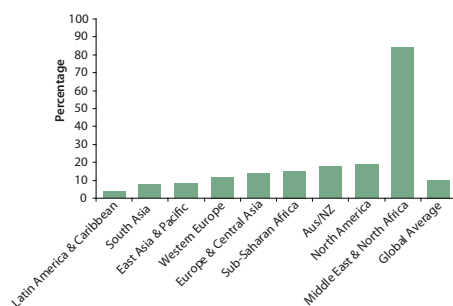
Source: Bucknall (forthcoming).

Good water governance depends on a number of factors, including strong policy, legal, and regulatory frameworks; more effective implementing organizations; a civic determination to improve water governance; and appropriate investments. Each of these factors is elusive, particularly in developing and middle-income countries, but several countries are beginning to address these issues.

article, we provide examples of communities and public authorities that have improved water governance even within the prevailing political economic realities, and that could provide models for use elsewhere. We take examples from very different water-scarce areas of the Middle East and North Africa (MNA) and South Asia (SAR).

Countries in both regions have made considerable investments to buffer themselves from irregular rainfall, either within their borders or closer to the source of the river in the case of rivers that flow across national borders (see Figure, below). Often, these investments receive little maintenance, however, leading

### Proportion of Freshwater Resources Stored in Reservoirs, by Region



Source: Bucknall (forthcoming).

### Strong Policy, Legal, and Regulatory Frameworks

Many states in India (including Andhra Pradesh, Madhya Pradesh, Karnataka, Tamil Nadu, and Gujarat) have implemented laws transferring responsibility for the manage-

ment of irrigation systems to farmers to improve decentralized service delivery performance and empower stakeholders. The state of Maharashtra has promulgated an ambitious water regulatory act that seeks to clarify entitlement frameworks. But political instability and the tendency of governments—especially those formed from disparate coalitions—to undertake regressive populist measures often undermines efforts. Several MNA countries have made efforts to rationalize the regulatory frameworks governing water, including Morocco with its comprehensive water law in 1995.

### Improved Effectiveness of Institutions

Over the past decade or so, many MNA countries have sought to consolidate institutional responsibilities for water management, clarify roles, eliminate overlapping functions, and establish mechanisms to coordinate across water-related sectors such as energy, agriculture, planning, and environment. These efforts have certainly not resolved the institutional problems, which remain daunting, but do represent an improvement on the previous situation.

In addition, some countries have begun decentralizing institutional responsibility. For example, Morocco has established agencies to plan water allocation at the level of the river basin, and other MNA countries are developing similar institutions.

Several countries in the region are experimenting, albeit in a limited way, with release of data to the public and inviting community groups into the planning processes. The Tamil Nadu Water Supply and Drainage Board has successfully demonstrated fundamental changes related to attitudinal transformation, perspective change, and institutional reorientation to improve its service delivery.

Reform of irrigation and drainage institutions in South Asia is much more difficult, but many states and provinces are initiating efforts to improve water productivity through institutional capacity building.

Moves to decentralize responsibility for managing infrastructure to users are under way in India and some MNA countries. These efforts have improved irrigation services and cost recovery, and have often had positive impacts on the empowerment of local communities. These efforts to decentralize control of water infrastructure are particularly noteworthy in the highly centralized context of most MNA countries.

## Desire to Improve Water Governance

Many South Asian systems could see significant progress if irrigation departments realized their core business is that of a reliable irrigation service provider and farmers realized they were the clients, and not recipients of the largesse of departments and the vagaries of nature. Leaders need to commit to increasing transparency and improving internal and external accountability. Some underlying problems contribute to (and result from) poor governance, such as asymmetry in socioeconomic conditions, access

to information, and the level of development of different stakeholder groups. For example, studies show that water user associations are more effective where there is more equity in land ownership among the group members. Opportunities for improving water governance may be greatest in those areas emerging in both regions where these underlying circumstances are in the process of changing, that is, where economic growth is rapid, education has become more widespread (especially for girls), and where urbanization is accelerating.

Political will is crucial, but it does not arise on its own. It depends on changes in political

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## DIVERSE WATER INSTITUTIONS NEED CUSTOMIZED ACTIONS TO IMPROVE GOVERNANCE

Water institutions come in different forms. One typology could be as follows:

### BY MANDATE

*Water Resources Management Institutions.* The core function of these bodies is to determine the best set of policies and investments to manage water resources (storage, extraction, quality, flood protection, transfers) and to manage the process of allocation among sectors. Some focus only on planning; others have implementation roles. They often multi-task; in South Asia and some MNA countries, water agencies also manage irrigation, sometimes leading to intractable conflicts of interest.

*Service Delivery Institutions.* These are responsible for providing consumers with water supply, sanitation, irrigation, or hydropower services. Recently, Nepal and India, Morocco, Tunisia, Yemen, Jordan, Egypt, and other countries have improved governance structures for these types of institutions, with positive results in terms of services. The specific models vary, but most of the reforms have included measures to help users communicate with service providers to make their preferences clear, informing them about service problems. The governance improvements also include processes to ensure that service providers respond to reasonable requests from the public.

### BY STAKEHOLDER TYPE

*Government.* Critical government agencies include those (1) at the national level, such as ministries of water resources/irrigation/water supply; (2) the provincial/state level, such as irrigation departments/provincial irrigation and drainage authorities, rural water supply departments, and state water and drainage boards; and (3) other levels, such as district administration and other sectoral agencies.

*Multistakeholder/Basin Organizations.* Stakeholder organizations are important forums for structured discussions, whether for a small watershed, intrastate basin, interstate basin, or international basins. The Palar and Thambiraparani basin boards in Tamil Nadu were the first broad-based basin organizations set up in South Asia, and have provided useful forums for discussion and gradual increase in responsibilities. Many more are now under development. The Nile Basin Initiative is leading to increasing international cooperation on information and investments under difficult circumstances.

*Community-Based Organizations.* These include decentralized governance structures such as local governments or water user associations, which are intended to help improve interaction and accountability between service providers and the client.

*Private Sector.* Private service providers may well be one important stakeholder in the water governance equation in the future. Morocco and Jordan have some private involvement in water supply services, and Morocco and Egypt have embarked on public-private partnerships for irrigation. It will be important to align their incentive structures to provide effective services while safeguarding social goals.

*Civil Society.* Civil society organizations have played an important role in keeping social and environmental issues on the radar of investment discussions, particularly in South Asia. Some NGOs have also started providing water services.

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circumstances, demands from stakeholders, and leadership. Many factors can drive decisions for reform. At the national level, the most sweeping reforms have often arisen in the wake of some major crisis. This can be an economic or fiscal crisis that stimulates countries to increase cost recovery for public investments in irrigation, water storage, and water supply. Or it can be an environmental disaster such as a series of droughts or floods. It is important to move toward systematic approaches to addressing these problems rather than “band-aid” approaches to each crisis.

## Making Appropriate Investments

It is not enough to invest only in water infrastructure. If government agencies are to play an important role in good water resources regulation and effective service delivery, it is crucial they invest in their staff, as well. This includes job training; taking advantage of the IT revolution to develop effective information systems for management and communication, including GIS-based tools; and improving office infrastructure, such as generators, filing systems, and furniture. Many of these sound trivial, but many institutional reforms have withered for lack of such investments. Of particular importance is to use these improvements to strengthen communication and outreach to communi-

ties to generate broad-based consensus on water governance.

## Is It Time for Real Change in Water Governance?

Problems of water governance have often been neglected by governments, the public, donors, and development agencies as being too intractable to deal with. In any country, however, a range of technical solutions for water problems could work if governance arrangements are good and could fail if they are poor.

Clearly water governance is influenced by the overall governance circumstances of the particular country or local area. There is a need to address often-overlooked difficult issues of institutional objectives, incentives and motivation; skills, tools and partnerships; staff performance management; corruption and political interference; financial autonomy; accountability; and benchmarking in a systematic manner, to complement the focus on investments. Yet water managers need not wait helplessly until the governance environment improves. On the contrary, local, small-scale initiatives have led to valuable improvements, even when the broader environment is not conducive to such changes.

Addressing water governance at any scale can help address the aspirations and frustrations of the developing world and allow water resources and related services to meet the challenges of the next century.

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