# MENA REGIONAL WATER GOVERNANCE BENCHMARKING PROJECT
## CONCEPT AND APPROACH FRAMEWORK

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# TABLE OF CONTENTS

# ACRONYMS AND ABBREVIATIONS

| | |
|---|---|
| AWA | Arab Water Academy |
| AWC | Arab Water Council |
| CADI | Computer Assisted Development Incorporated |
| CTO | Cognizant Technical Officer (USAID) |
| ECO | ECO Consult |
| GWP | Global Water Partnership |
| ICBA | International Center for Biosaline Agriculture |
| ICID | International Commission on Irrigation and Drainage |
| IEC | International Executive Council of ICID |
| IRG | International Resources Group |
| IWMI | International Water Management Institute |
| IWRM | Integrated Water Resource Management |
| IWW/OSU | Institute for Water and Watersheds at Oregon State University |
| MENA | Middle East North Africa |
| MWI | Ministry of Water and Irrigation (Jordan) |
| NGO | Non-Governmental Organization |
| OMEP | Office of Middle East Programs (USAID) |
| OSU | Oregon State University |
| PIM | Participatory Irrigation Management |
| PPP | Public Private Partnerships |
| ReWaB | MENA Regional Water Governance Benchmarking Project |
| SIDA | Swedish International Development Agency |
| SOW | Scope of Work, Statement of Work |
| TL | Team Leader |
| UN | United Nations |
| UNDP | United Nations Development Program |

| USAID | United States Agency for International Development |
| WAJ | Water Authority of Jordan |
| WWAP | World Water Assessment Program |

# PREFACE

The Regional Water Governance Benchmarking Project (ReWaB) aims to build a strategic framework and establish indicators and benchmarks to monitor national progress on improving water governance in the MENA region. It is supported by the USAID Office of Middle East Programs (USAID-OMEP) through a contract with International Resources Group (IRG) and is slated to run from September 2008 through February 2010. It is being implemented by IRG and its partners.

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# 1. INTRODUCTION

Most countries of the Middle East are chronically water stressed. Population growth and climate change impacts will exacerbate that stress. At the same time, most countries in the region are still strongly dependent on irrigated agriculture as a source of livelihood and employment for their rural populations. Nevertheless, the fastest growth in water needs is likely to occur in other economic sectors. Water productivity in existing uses must, therefore, increase in response to growing demand and the strong likelihood of a shrinking supply. Moreover, better water management must start at the resource level in order to provide effective and equitable balancing of existing uses and the growing needs of urban and industrial sectors.

Clearly, hardware solutions to these formidable challenges are not, by themselves, sufficient. Most of the region's countries have already constructed significant water resource infrastructure, but the effectiveness of water governance and management has often lagged behind. Former UN Secretary General Kofi Annan has stated aptly that "the world water crisis is a crisis of governance – not one of scarcity."

Yet how does one solve "a crisis of governance?" Water governance comprises complex nested and interlocked sets of decisions about water. It is inherently a political process and not a technocratic one, and ultimately it is the responsibility of national and regional governments, working with their own citizens and with each other, to make improvements. International bodies can help by providing advice and support, but ultimately decision about policies, laws, institutional structure, incentives, and capacity development must be made by national and local authorities.

Nevertheless, there is a critical need in nearly every country to understand whether current water governance structures and practices are suitable and are delivering desired results and, if not, where they fall short. In a globalized world, such national assessments can clearly benefit from comparisons across countries and time. One approach that can, and should, originate outside a particular country is a mechanism for measuring and characterizing the capacity for and quality of water governance in a given country and an on-going system for regular, repeated, and impartial measurement and reporting. When such measurements are made for a number of countries and at regular intervals, it is possible to compare water governance status and performance both among countries and in a single country over time. Openly disclosed, such comparative information can stimulate discourse and allow countries to track progress and to identify areas in which they lag and excel.

This paper lays out an approach to establishing a system of water governance capacity and performance benchmarking for Middle Eastern countries. It defines concepts of *governance*, *policy*, *management*, and others and presents a strategy for assessing *de facto* water governance based on essential *water governance functions* and characteristics of *governance decision making processes*. It also suggests a three-tiered framework defining the structural capacity for effective water governance – *policies*, *laws*, and *organizations*. Finally it suggests an approach to measurement and assessment based on a stratified set of stakeholder opinion panels.

This is a challenging undertaking, and ours is not the first attempt to address it. A number of other efforts have been made, or are underway, to carry out similar exercises. Some of these efforts focus specifically on environmental protection or on performance in particular subsectors such as urban water supply and sanitation. Nevertheless, the field is a dynamic one and it is important to be aware of and learn from other efforts and to interact with them.

# 2. THE CONCEPT OF WATER GOVERNANCE

Our approach to water governance is grounded in the academic and professional literature on concepts of governance, policy formulation and change, institutions, organizations and integrated water resource management (IWRM). At the same time, we recognize the need for a benchmarking system and its underlying concepts to be accessible, intuitive, and easy-to-understand so that it is meaningful and useful to policymakers and practitioners. Consequently, we have reviewed the academic literature on these topics and then adapted the understanding gained with practical experience from professionals working in the field.[1]

Two contrasting policy paradigms were considered as a base for assessing water governance in the MENA region. These are Neo-Institutionalism (NI) and Actor-Centered Institutionalism (ACI) (Box 1). Because of the dominant role of the state in shaping water governance in most countries of the MENA region, the NI perspective was adopted here. Additional description of the two perspectives can be found in Annex 1.

There is often confusion over the meaning of "governance" in general and "water governance" in particular. The United Nations Development Program (UNDP) defines governance as "the exercise of economic, political, and administrative authority to manage a country's affairs at all levels (UNDP, 1997). The World Bank adds the notion of "acquiring" authority to that of "exercising" it, defining governance as "the manner in which public officials and institutions acquire and exercise the authority to shape public policy and provide public goods and services" (World Bank, 2006, 1). Kaufmann and Kraay (2008) suggest also that most definitions of governance emphasize the importance of a capable state that is accountable to citizens and operates under the rule of law. These considerations lead to the following basic definition, which we employ in the present framework (Box 2). Note that this definition can operate at various levels, from national to local, and can also encompass informal governance based on local tradition, as with the authority of a village headman or a traditional *mirab* (watermaster).

> **BOX 1. ANALYTIC PARADIGMS**
> **Neo-Institutionalism:** A state-centered policy framework where the state controls the policy setting process and exerts influence through embedded structures.
>
> **Actor-Centered Institutionalism:** An actor centered framework where individuals and groups influence policy formulation and implementation through their economic and social transactions.

> **BOX 2. GOVERNANCE**
> Governance is the manner in which authority is acquired and exercised on behalf of the public.

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[1] All of the concepts introduced in Part I were reviewed in a March 2009 workshop in Ain Sokhna, Egypt involving representatives from Egypt, Jordan, Morocco, and Oman, as well as USAID, selected resource persons, and ReWaB team members. The workshop was extremely useful in helping the team to refine proposed concepts and approaches.

Governance is sometimes conceived of as the sum total of processes, mechanisms, systems and structures that a State evolves and puts into place in order to shape and direct its water economy to conform to its near and long term goals (Shah and van Koppen, 2009). As such it includes the more routine operations that are often referred to as "management." Others see it as comprising the higher-level decisions that establish the context for day-to-day decision making. As such it encompasses decisions on sectoral policies and the overall organizational architecture of the sector but would not extend to routine administrative decision making. This is the interpretation adopted in the first *UN World Water Development Report* (UN WWAP, 2003). We take this more restricted view in our analysis, though the framework developed can easily be expanded to encompass service delivery as well[2].

The Global Water Partnership (GWP) and others define water governance as "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" (Rogers and Hall, 2003, 18). Because we see governance in terms of decision making rather than a system or a structure, we have framed it slightly differently, though in a way that is still broadly consistent with the widely cited GWP definition (Box 3). We have also tied our notion of water governance to the broader concept of governance defined earlier.

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**BOX 3. WATER GOVERNANCE**
Water governance is the manner in which authority is acquired and exercised on behalf of the public in developing, utilizing, and protecting a nation's water resources.

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A variety of issues, operating at a range of scales, need to be considered in assessing governance of the water resource. These sets of issues can change over time. To highlight this, the governance dynamics of building an irrigation network and managing its water are illustrative. The initial water control infrastructure is often huge, requiring national or even international investment and management. The construction of such projects is often argued to create pubic goods, for example secure food supplies and employment, that, in turn, contribute to national well-being and stability. Decisions on construction and how the water is stored and released must almost necessarily be part of a formal, state system; the scale is national or even international.

Once built, a project may then have its own formal institutional arrangements to ensure effective movement of water from the reservoir to the main irrigation canals; the scale is regional. However, as water moves from the main canals to smaller distribution canals and finally into farmers' fields, the nature of the water management problem changes and water management questions become increasingly local and less formal. At the lowest end of the system, the question becomes how a small group of farmers will divide the water in the final canal among their individual fields? This problem can be addressed by formal rules developed at national or project level and applied locally. Or, as is more common, it can be addressed through informal systems farmers' themselves customarily develop and use to manage water, perhaps practices developed before the modern irrigation system was in place.

What is important to take from this example is that institutional pluralism is a ubiquitous feature of water governance. There will almost never be conditions in which water is effectively governed by a single formal or informal system. Indeed, almost all water use is governed by a range of institutions, informal and formal, operating at a range of scales. Thus any overall assessment of water governance would

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[2] In addition to its use in referring to decision making in the public sector, the term governance is sometimes also applied to private sector organizations, as in "corporate governance." In this usage, the reference is usually to higher level decision making at what might correspond to the corporate policy level. Thus it is distinguished from day to day management in this application. As used here, the use of the term governance is limited to public sector governance, though the resulting system may include private actors.

benefit from consideration of the wide variety of water uses and users and the many institutions that they control (and vice versa).  This conclusion also highlights the importance of delineating clearly the scope of the assessment that is being undertaken.

In contrast to governance which consists of sets of nested and interlinked decisions, institutions consist of the "rules, norms and other humanly-devised constraints" (North, 1990) that set limits on individuals and help define their choices. Institutions can be formal or informal. Formal institutions are made up of policies, laws, and rules that are legitimized by the state. Informal institutions are based on trust and are most often legitimized by local practices and conventions and not backed by the state or a formal legal system. Examples include sanctions, taboos, customs and traditions.  In general, informal institutions may be more effective at local levels, while formal institutions are more effective as the area to be governed, or number of individuals in the governance system, increases.  Moreover, as economies grow and diversify, informal institutions are often complemented, and sometimes supplanted, by formal ones.  A classic example is the system of customary water rights existing in many countries which, over time, are replaced by more formal government-administered property rights systems.  In the water sector, informal and formal institutions can, and generally do, operate simultaneously.

Institutions are thus seen as important elements of the governance process where they serve to constrain and encourage certain types of choices and behavior.  In this paper, the term institutions is used in this broader sense.  Formal hierarchically-structured institutions are a subset of the broader category of institutions and the term "organizations" is used to describe these[3].

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[3] The term 'institution" is sometimes used interchangeably with the term "organization" in popular literature.  We chose to use the more specific term "organization" here when we mean a formally-organized hierarchically-structured institution so that the term "institution" can assume its broader and more encompassing meaning which includes laws, rules, and "informal" traditions.

# 3. FRAMEWORK OF ANALYSIS

## 3.1. STRUCTURE OF GOVERNANCE

For analytical purposes, governance structures can be divided into three groups: policies, laws, and organizations (Saleth and Dinar, 2004). Policies can be seen as giving overall direction to governance, while laws create the formal and enforceable "rules of the game" and authorize the organizational structure necessary to implement policy (Box 4). Below the policy level, more routine decision making, i.e. management, takes place within an organizational structure to implement policy.

> **BOX 4. SHORT DEFINITIONS**
> **Policy:** A purposive course of action giving overall direction to governance.
>
> **Law:** Codified and informal "rules of the game".
>
> **Organization:** Groups of individuals engaged in purposive activity.

### POLICY

Public policy has been defined by Anderson as "a purposive course of action followed by government in dealing with some problem or matter of concern" (1997: 330). Similarly, Dye defines it as "anything a government chooses to do or not to do" (1972: 2).

The common view of the public policy process includes five stages: (1) setting the policy agenda, which is basically getting government to consider taking action on some identified problem or issue; (2) formulating policy, which is the development of a course of action to deal with the identified problem; (3) policy adoption, the process of selecting and then authorizing a course of action; (4) policy implementation, applying the policy to solve the problem; and (5) policy evaluation, an effort to evaluate if the policy is actually working or not. In practice, these steps do not always occur in the sequence outlined, but delineating the idealized steps is useful to illuminate the interrelationships among them.

While the above definition is all-encompassing, a useful practical distinction is often made between policy and management. Policy is seen as the setting of the goals and overall intention of the government at its higher levels, while management occurs at lower levels to carry out the intentions so formulated. Policy is thus the subject of intense periodic activity at longer intervals, while management occurs more frequently and routinely in the times between policy formulation and reassessment.

The policy process cannot be studied separately from the context in which it operates, including the official actors (i.e., government) and unofficial actors (e.g., interest groups) involved, relevant geographical characteristics (e.g., climate, topography, natural resources), demographic factors (e.g., population distribution, age and size), political culture (accepted values and norms for governance), social structure (e.g., class or caste system), economic system (e.g., competitive capitalistic versus oligarchic capitalism), and governmental institutions (e.g., democratic versus authoritarian). Often, the context of the policy process dictates the types of implementation strategies used to garner compliance (Schneider and Ingram, 1993). These could include voluntary and non-coercive forms of action such as suasion, education and demonstration programs, the use of mediation and conciliation, and the use of collaborative governance structures and approaches. Coercive forms of policy implementation could include licensing, inspections and fines, loans, subsidies, benefits, taxation, services, incentives and sanctions.

## LAWS

We interpret the word "law" broadly to encompass both codified or written laws and unwritten laws.

Codified law related to water resource governance can be subdivided into four categories:

1. Bilateral, multilateral, or other international agreements that have been signed or ratified by the country (e.g., transboundary water sharing and management agreements, general international treaties [e.g., 1997 Watercourses Convention; RAMSAR Wetlands Convention])

2. Acts, statutes, and codes legislated by a supreme national law-making authority (e.g., national assembly, congress, parliament)

3. Decrees, orders, and regulations formulated by the highest committee of the executive branch of government (e.g., president, cabinet, council of ministers)

4. Orders, rules, decrees and by-laws developed by inferior committees or officers of the executive branch (e.g., ministers, departments, municipalities, provincial governors)

Unwritten laws are local customs and practices that are abided by out of a sense of obligation and that are handed down through the generations as a function of culture and tradition. An example of an unwritten law that may be present in Muslim countries is the right of thirst – a religion-based legal right to take or receive water to quench one's thirst or to water one's animals.

Other laws relevant to this exercise will be found outside the water sector. Laws from sectors such as environmental regulation, public health, and important water-related economic sectors, such as hydropower generation will also affect the governance of water resources. Also more generic legislation may serve as a basis for the formation of groups such as water user associations or non-governmental organizations (NGOs).

In practice, we will focus our attention on codified law as described in points 1 through 4 above. The rationale for this rests with our focus on higher-level governance processes, where informal unwritten beliefs and practices are less evident and less relevant than they are at the level of water service delivery.

## ORGANIZATIONS

If laws are the rules of the game, organizations are the players. Organizations are groups of individuals engaged in purposive activity. The constraints imposed by the legal framework, together with the other institutional constraints, define the opportunity set and therefore the types of organizations that emerge (North, 1994).

Organizations comprise one large and important class of actors and stakeholders in water governance. These include public water management organizations created under water sector law, informal or customary organizations that manage water or provide water services locally, and NGOs and other organizations established under generic laws or laws applying to other sectors[4].

Examples of typical organizations acting in the water sector are ministries of the environment or water resources, water user associations, water supply utilities, water research institutes, independent regulatory commissions, and equipment trade organizations. These are thus the entities that develop and manage water resources, supply water, use water, and protect (and sometimes pollute) the environment. In other words they are the actors that carry out, and are governed by, the functions described in the following section.

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[4] Individuals comprise the other class of stakeholders; however in more mature water governance set-ups, individuals are often represented by organizations to give themselves effective voice.

Different countries often evolve very different organizational set-ups. Ministries, for example, may be responsible only for water, for water and environment, for water and agriculture, for water and energy or any of a variety of other combinations. As one moves down into the administrative hierarchy, however, organizational diversity tends to diminish and structures to converge on similar units based on their functions. Nevertheless there is no routine prescription or standard for a "good" organizational set up. Consequently, we have shifted our primary focus from specific structures to the functions that water sectors must perform, which often have a great deal in common across a wide variety of settings and which provide a useful framework for performance-based assessment.

## 3.2. GOVERNANCE FUNCTIONS

We have observed that there is substantial consistency in the types of functions that water sectors perform across a wide range of countries. This has led us to identify a set of core functions, defined as processes routinely carried out to achieve specified ends, which any well-functioning water sector must perform. The use of a set of standard water governance functions is a fundamental and distinguishing element of our approach to water governance.

This approach had its origins in earlier work by Svendsen and others aimed at identifying the essential functions related to water management at the basin scale. Svendsen (2005) discussed institutions, organizations and policies in relation to water management and outlined an "essential functions and enabling conditions" framework for analyzing basin management regimes. He identified several key groups of stakeholders (multinational agencies, government agencies, private firms, associations/NGOs and interest groups) and sectors (agriculture, domestic, industry, hydropower and environment) as a starting point for assessing basin water management. He also provided 9 essential functions for river basin management:

- Medium to long-term Planning

- Allocating water

- Distributing water

- Monitoring water quality

- Enforcing water quality

- Protecting against water disasters

- Protecting ecology

- Constructing hydraulic facilities

- Maintaining facilities

Each of these essential functions was analyzed separately for surface water, groundwater and derivative water[5]. Adaptations of this approach were applied in Mexico (Wester, et al., 2005), South Africa (de Lange, et al., 2005), Vietnam (Svendsen, et al., 2005) and Turkey (Svendsen, et al., 2005).

In the current study, this function list served as a starting point, and was thoroughly revised and adapted to reflect the present focus on water governance and to incorporate feedback from academics and

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[5] Derivative water is water that has been used non-consumptively and than made available for reuse, i.e. return flows from irrigation or wastewater from municipal water supply systems.

practitioners in the field during an extensive review process. We believed that this list represents a comprehensive summary of the basic water governance functions that must be performed by any national water sector if it is to be effective.

Although arguably included in the overall concept of water governance, our discussion here does not extend to the actual provision of water services to users. Although not necessarily easy to do well, we regard water service provision as a routine administrative/managerial function that follows from effective performance of the five sets of tasks included in the functional framework shown in Box 5. This allows us to focus explicitly on the five essential higher-level governance functions.

**BOX 5.  STANDARD WATER RESOURCE GOVERNANCE FUNCTIONS**

**1.  Organizing and building capacity in the water sector**
  1.1   Creating and modifying an organizational structure
  1.2   Assigning roles and responsibilities
  1.3   Setting national water policy
  1.4   Coordinating and integrating among sub-sectors, levels, and national sub-regions
  1.5   Establishing linkages with neighboring riparian countries
  1.6   Building public and political awareness of water sector issues
  1.7   Securing and allocating funding for the sector
  1.8   Developing and utilizing well-trained water sector professionals

**2.  Planning strategically**
  2.1   Collecting, managing, storing and utilizing water-relevant data
  2.2   Projecting future supply and demand for water
  2.3   Designing strategies for matching expected long-term water supply and demand and dealing with shortfalls (including drought mitigation strategies)
  2.4   Developing planning and management tools to support decision making

**3.  Allocating water**
  3.1   Awarding and recording water rights and corollary responsibilities
  3.2   Establishing water and water rights transfer mechanisms
  3.3   Adjudicating disputes
  3.4   Assessing and managing third party impacts of water and water rights transactions

**4.  Developing and managing water resources**
  4.1   Constructing public infrastructure and authorizing private infrastructure development
  4.2   Forecasting seasonal supply and demand and matching the two
  4.3   Operating and maintaining public infrastructure according to established plans and strategic priorities
  4.4   Applying incentives and sanctions to achieve long and short term supply/demand matching (including water pricing)
  4.5   Forecasting and managing floods and flood impacts

**5.  Regulating water resources and services**
  5.1   Issuing and monitoring operating concessions to water service providers
  5.2   Enforcing withdrawal limits associated with water rights
  5.3   Regulating water quality in waterways, water bodies, and aquifers (including enforcement)
  5.4   Protecting aquatic ecosystems
  5.5   Monitoring and enforcing water service standards

## 3.3. PROCESSES OF GOVERNANCE DECISION MAKING

Water governance is, in essence, a series of interlinked decisions. Water-related decisions can be divided into two types. The first comprises top-level more infrequent decisions that set the context in which routine decisions are made. These typically relate to establishment of policy, laws, rules, program priorities, and the like. The second class of decisions comprises the routine day-to-day decisions related to water delivery, revenue collection, staffing, and so on.

The way in which both types of decision are made matters a great deal to water service clients, stakeholders, and to the general public, who want to know how pending decisions will affect them and wish to have a voice in discussions leading up to them. Moreover, the nature of the decision making process can be an important determinant of the decision actually reached. More open processes can place new information before decision makers, enhance their awareness of the interests held by various groups, and expose discussion and relationships to public scrutiny.

Recent empirical research also helps to illuminate this area. While there is no universal prescription for structuring effective water governance organizations, researchers have identified some key design elements that often lead to effective management of natural resources. Based on this research, managers and policy makers in both advanced industrial and developing countries are reorganizing and reinventing government to improve program efficiencies, to harness resources outside government in the service of public policy goals, and to better facilitate the input of state-level interests, private sector groups, and the general public (Durant et al., 2004; Weber, 2003). The move to share bureaucratic decision-making power with citizens and personnel in the lower reaches of organizational hierarchies, to embrace collaborative public-private and public-NGO partnerships, and to reject dense rule structures and hierarchy as necessary components of an efficient and/or accountable public administration is occurring across a broad range of policy areas (see Green and Chambers, 2006 and Mudacumura et al., 2006). The propensity to adopt alternative institutional arrangements premised on decentralization, collaboration, and citizen participation is especially pronounced in the natural resources policy world.

According to Durant et al. (2004, 512), effective governance entails organizations becoming "…priority based, information driven, results oriented, customer focused, cross-media centered, and seamless," which all requires a "…persistent focus on dialogue, trust building, transparency, information sharing, outcomes-focused goals, flexibility, and intra- and inter-organizational collaboration". However, as Costantinos (2006) argues, it is difficult to implement such organizational change in many developing countries because of hierarchical policy processes and the long-term exclusion of citizens from local decision-making.

Features characterizing sound decision making processes in water governance are further discussed in the following section. Based on this discussion, a set of five decision process dimensions for use in assessing water governance are posited.

## 3.4. STANDARDS OF GOOD WATER GOVERNANCE

As explained in previous sections, our approach to assessing water governance involves three principal components – an institutional framework, including the involved actors; essential water governance functions; and basic process characteristics. However to evaluate these components, we need some accepted basis for making judgments.

A key question thus remains as to what constitutes "good" water governance. A reasonable basis for defining good water governance is provided by the tenets of Integrated Water Resources Management (IWRM), which have been widely considered and debated, are well established internationally, and often accorded elevated status in the water management community. There are, however, practical limitations

to the use of IWRM principles (Biswas, 2004) as well as debate concerning whether their universal application should be a goal (Shah, 2005; Molle, 2008).

Nevertheless, it is useful to explore recent international efforts to develop consensus views on principles that can guide water governance in a variety of settings. The first conference to seek global consensus on water was the 1977 *UN Water Conference in Mar del Plata*, which brought together representatives from 116 governments as well as people from major multilateral development banks, NGOs, and river basin commissions. While tangible outcomes were limited, the conference helped spur designation of the 1980s as the *International Water Supply and Sanitation Decade*, which in turn helped establish networks of interested water professionals and experts. These networks began taking a broader view of water and sanitation than had traditionally been the case – one that appreciated and acknowledged the range of challenges inherent in managing the water resource. One outcome was the UNDP-sponsored *Global Consultation on Safe Water and Sanitation for the 1990s* in New Delhi in 1990.

Building on the 1990 New Delhi conference and moving beyond the domestic supply and sanitation field was the *International Conference on Water and Environment*, held in Dublin in 1992 in preparation for the *UN Conference on Environment and Development* (UNCED) in Rio that same year. One hundred fourteen countries, 28 UN agencies, 59 intergovernmental and non-governmental organizations participated. Influenced by the expanding environmental movement and growing concerns about sustainability, ministers at the Dublin Conference ratified four principles that were subsequently endorsed by heads of state in Rio. These "Dublin Principles" have since formed a core part of water governance discourse (Box 6).

> **BOX 6. THE DUBLIN PRINCIPLES**
> - Freshwater is a finite and vulnerable resource, essential to sustaining life, development and the environment
> - Water development and management should be based on a participatory approach, involving users, planners, and policy makers at all levels
> - Women play a central part in the provision, management, and safeguarding of water
> - Water has an economic value in all its competing uses and should be recognized as an economic good

The successor to Dublin-Rio was the *Bonn 2001 International Conference on Freshwater*, which served as a preparatory step on freshwater issues for the *World Summit on Sustainable Development in Johannesburg* in 2002. The ministers in Bonn recommended action in three areas, of which water governance was deemed most important, and prepared a statement that was endorsed by heads of state in Johannesburg the following year. Importantly, the conference included a call by participating governments to adopt IWRM and water efficiency approaches by 2005. By and large, however, the Bonn-Johannesburg process did not have the same level of substance or impact as the principles emanating from Dublin, which still provide the underlying framework for most discussions on IWRM and water governance.

Concurrent with the UN-sponsored international conferences, at least two influential research and networking organizations have formed. The Global Water Partnership (GWP) was founded in 1996 by the World Bank, the United Nations Development Program (UNDP), and the Swedish International Development Agency (SIDA) to provide an organizational umbrella for a growing water movement. Created with the explicit objective of promoting and implementing integrated water resources management, the GWP has emerged as a leading spokesperson for IWRM. In addition, UN-Water was launched in 2000 to support member states in their efforts to achieve water and sanitation goals and targets. In 2003, UN-Water was endorsed as the new official United Nations mechanism for follow-up of the water-related decisions reached at the 2002 World Summit on Sustainable Development and the Millennium Development Goals. UN-Water's flagship program, the World Water Assessment Program

(WWAP) monitors freshwater issues in order to provide recommendations, develop case studies, enhance assessment capacity at a national level and inform the decision-making process.

As noted earlier, the GWP defines water governance as "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" (Rogers and Hall, 2003). Based on this definition and the closely related Dublin Principles noted above, WWAP identifies four dimensions of good water governance. A social dimension points to the equitable use of water resources. An economic dimension points to the efficient use of water resources and the role of water in overall economic growth. A political dimension points to providing water stakeholders and citizens at large with opportunities to participate in and monitor political processes and outcomes. An environmental dimension suggests that effective governance should enhance sustainable use of water resources and ecosystem integrity.

Building on these definitions, the GWP identified ten criteria for "effective" water governance (Rogers and Hall, 2003). These ten principles were further refined by WWAP to produce a list of eight basic features of good governance, shown in Box 7.

While few would disagree, in the abstract, with these governance principles, there are dissenting views on their operational usefulness. Jonch-Clausen and Fugi (2001) fear that IWRM is simply "one of those buzzwords that everybody uses but mean many different things to different people." Biswas (2004) has contended that many people have applied the IWRM tag to the same approaches they would have otherwise used, a sentiment echoed by Molle (2008). Shah et al. (2001), Van Koppen (2007) and Lautze & Giordano (2007) each highlight the limitations to imposing developed country frameworks on developing country conditions. All of this calls for some caution when applying the same framework, based on somewhat ambiguous IWRM principles and incorporating a strong normative perspective, to multiple developing countries.

**BOX 7.  THE *WORLD WATER ASSESSMENT PROGRAM* PRINCIPLES OF GOOD WATER GOVERNANCE**

1. **Participation**: all citizens, both men and women, should have a voice – directly or through intermediate organizations representing their interests – throughout processes of policy and decision-making. Broad participation hinges upon national and local governments following an inclusive approach.

2. **Transparency**: information should flow freely within a society. The various processes and decisions should be transparent and open for scrutiny by the public.

3. **Equity**: all groups in society, both men and women, should have opportunities to improve their well-being.

4. **Accountability**: governments, the private sector and civil society organizations should be accountable to the public or the interests they are representing.

5. **Coherency**: the increasing complexity of water resource issues, appropriate policies and actions must be taken into account so that they become coherent, consistent and easily understood.

6. **Responsiveness**: institutions and processes should serve all stakeholders and respond properly to changes in demand and preferences, or other new circumstances.

7. **Integrative**: water governance should enhance and promote integrated and holistic approaches.

8. **Ethical considerations**: water governance has to be based on the ethical principles of the societies, in which it functions, for example by respecting traditional water rights.

WWAP (2003, 373)

The principles shown in Box 7 are diverse.  Some, such as participation and transparency, describe desirable features of decision making processes.  Others, such as equity, represent desired outcomes.

We have considered these principles carefully and have filtered them using two primary criteria.  First because we are aiming at a practical system of measurement and benchmarking, we must be able to define the concepts we are using operationally.  This also means that they must be measurable in some way.  Second, because we see water governance principally as a dynamic decision making process rather than a structure or a system, we have focused on those attributes that characterize the decision processes which, in our view, lie at the heart of water governance.  This filtering has led us to include characteristics such as "transparency", "participation", and "rule of law", while excluding those such as "equity" which characterize the outcomes of the governance process, and "ethical considerations" which does not lend itself to definition or measurement[6].

The process attributes employed in the framework are described below[7].

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[6] "Coherency" and "Integrative" are included, in our framework under the first standard function – "Organizing and building capacity in the water sector" and are thus excluded from our list of decision process attributes.

[7] Statements in italics are the definitions used by WWAP (2003).  "Rule of law" is an exception and was taken from a UNDP list of features characterizing good governance (UNDP, 1997). The descriptive statement in italics under this dimension is from that document.

1. **Transparency.** *Information should flow freely within a society. The various processes and decisions should be … open to scrutiny by the public.* In practice, this requires demonstrated willingness by governments to share information related to water sector policy, legal, and regulatory changes, development plans, water allocation decisions, water resources status and uses, and the like**.**

2. **Participation.** *All citizens, both men and women, should have a voice, directly or through intermediate organizations representing their interests, throughout water governance policy formulation and decision-making.* In practice this requires the demonstrated willingness by the government to solicit and consider input from stakeholders in civil society and elected legislators. It also requires the demonstrated willingness of government leaders to make changes and adjustments to proposals on the basis of input received.

3. **Accountability and Integrity**. *Governments, the private sector and civil society organizations should be accountable to the public or the interests they represent.* In practice, governments and other organizations active in water governance should openly disclose their actions and the results of governance decision making and should practice subsidiarity, mandating that decisions be taken at the lowest competent level. Governments should also undertake actions to reduce corruption and illicit personal gain in water sector decision making.

4. **Rule of law.** *Legal frameworks should be fair and enforced impartially.* In practice, decisions should be made in conformity with specified laws, practices, and procedures.

5. **Responsiveness.** *Institutions and processes should serve all stakeholders and respond properly to changes in demand and preferences, or other new circumstances.* In practice governments should monitor and note changing conditions of water supply and demand and respond appropriately. Governments should also regularly review and assess their water-related policies, structure, programs, and the resulting outcomes and make appropriate revisions.
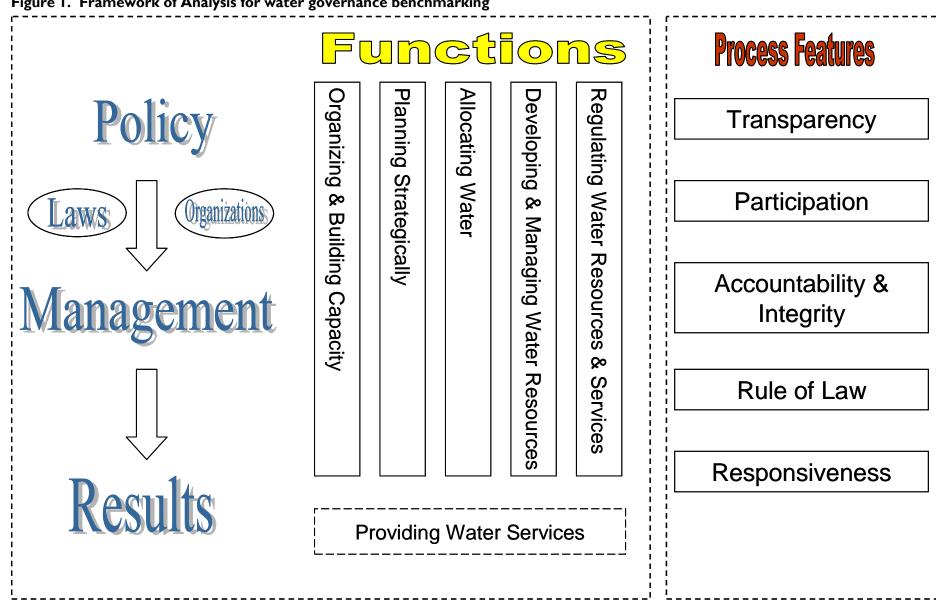
## 3.5. THE FRAMEWORK

The framework resulting from the considerations discussed above is shown in Figure 1. Policies, laws, and organizations provide the institutional structure in which water management takes place.

Effectiveness in water governance stems from effective performance of a set of standard functions that must be executed by any water sector to fulfill its mission. The exact nature of that mission is determined by the policies framed by national leaders. But regardless of the specific goals established by these policies, this set of functions must be performed effectively to implement them. Functions are seen as cutting across the domains of policy, law, and organization to yield results. By assessing the performance of basic functions, we move beyond the static view of nominal structures made up of policies, laws, and organizations and look also at the effectiveness of execution.

Finally, the characteristics of governance decision making provide a way of assessing the degree to which governance reflects the will of the public, its fairness, and its self-awareness and ability to adjust to changing conditions.

**Figure 1. Framework of Analysis for water governance benchmarking**



Policy

Laws → Organizations

Management

Results

**Functions**

- Organizing & Building Capacity
- Planning Strategically
- Allocating Water
- Developing & Managing Water Resources
- Regulating Water Resources & Services

Providing Water Services

**Process Features**

- Transparency
- Participation
- Accountability & Integrity
- Rule of Law
- Responsiveness

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# ANNEX 1: ALTERNATIVE MODELS OF GOVERNANCE

Both Neo-Institutionalism (NI) and Actor-Centered Institutionalism (ACI) depend on structures (i.e. rules, norms and symbols) to shape policy; however, where NI depends on the independent role of the state as its unitary analysis, ACI considers actors (groups or individuals) for its unitary analysis. Where NI considers the state as central in creating policy, with influence through embedded structures, ACI considers actors affected by embedded structures and how they affect policy through their economic and social transactions. Neither approach is exclusive.

In NI, the analyst must consider the "other organizations and agents [that] pattern social relationships and politics" in addition to the state (Skocpol 1985). Similarly, in ACI, the analyst must consider the structures (rules, norms, and symbols) that shape actors and modes of interaction within the policy environment. In NI, it is the state's goal to establish legitimacy in every arena. In ACI it is the actors' goals to maximize "payoffs" through coordinating or competing (Scharpf, 1997). In NI one must focus on the state and how it shapes individuals' preferences and actions to reach its own ends. In ACI it is necessary to define the actors who are directly involved in the policy process; who are characterized by their capabilities, perceptions, and preferences; and who strategize to maximize their chances at a beneficial outcome. Scharpf declares that unitary "actors" only exist to the extent that the individuals acting can coordinate their choices within a common frame of reference (1997). These actors are also defined by their ability to take cohesive action and use potent resources. Actors thus differ from stakeholders who may be affected by a course of action but lack the ability to influence it. In both NI and ACI, institutions are rules that structure the courses of actions that actors may choose defined as legal rules, social norms, and organizational practices. For both NI and ACI, contextual information is necessary to analyze the success and limits of the policy process.

Because of the centrality of the state in making water governance decisions in the MENA region, the NI paradigm was selected as a basis for a comparative analysis of long-term development of national water institutions. In a more in-depth analysis, ACI would be a useful complementary framework to use in analyzing potential flaws and barriers to effective policy implementation from a transaction-analysis perspective.

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