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MENA REGIONAL WATER GOVERNANCE BENCHMARKING PROJECT

FINAL REPORT

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ACRONYMS

CADI	Computer Assisted Development Incorporated
ECO	ECO Consult
GWP	Global Water Partnership
ICID	International Commission on Irrigation and Drainage
IRG	International Resources Group
IWMI	International Water Management Institute
IWRM	Integrated Water Resource Management
IWW/OSU	Institute for Water and Watersheds/ Oregon State University
MENA	Middle East North Africa
OSU	Oregon State University
ReWaB	MENA Regional Water Governance Benchmarking Project
SIWI	Stockholm International Water Institute
UNDP	United Nations Development Program
UNWWAP	United Nations World Water Assessment Program
USAID	United States Agency for International Development
USAID-OMEPE	United States Agency for International Development – Office of Middle East Programs

FOREWORD

The Middle East North Africa (MENA) Regional Water Governance Benchmarking Project (ReWaB) aimed to characterize water governance regimes in a number of Middle Eastern countries to allow comparisons both across countries and over time. To do this, it developed a conceptual framework for considering water governance, along with desk and field-based assessment methodologies, and applied these methodologies, in various combinations, in six countries.

This is the final report on that effort. It is a summary and tries to weave together the key messages from the various project components and consolidate them in a single concise narrative. More detailed descriptions and analysis are contained in the supporting country profiles, analytic protocols, framework paper, and other project documents, which are attached.

Thanks are due to the leaders of the work at Oregon State University (OSU) and the International Water Management Institute (IWMI), Drs. Aaron Wolf and Mark Giordano, Dr. Tom Sheng of Computer Assisted Development Incorporated (CADI), Dr. Håkan Tropp of the Stockholm International Water Institute (SIWI), Drs. Lucia DeStefano and Jonathan Lautze, who conducted much of the field work, and to national and regional collaborators who make critically important contributions to the successful implementation of the field activities. The work was funded by the USAID Office of Middle East Programs (USAID-OMEP) for which we are deeply appreciative. Special thanks go to Mr. Eric Viala, who developed the terms of reference for the project and served as its first USAID program manager (COTR), and to the two COTRs who followed him, Mr. Jim Wright, and Mr. Mark Peters. Finally thanks to Mr. Russell Misheloff who served as the Home Office Project Manager for International Resources Group (IRG) and to Mr. Firras Traish and Mr. Daniel Lapidus who provided financial management and technical backstopping at IRG.

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I. WATER GOVERNANCE

I.1. THE WATER GOVERNANCE PROBLEM

Most countries of the Middle East are chronically water stressed. Population growth and climate change impacts are exacerbating those stresses. 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 occurring in other economic sectors. Water productivity in existing uses must, therefore, increase in response to growing demand elsewhere. Moreover, there is a strong likelihood of a shrinking supply owing to human-induced changes in our climate. Better water management must start at the resource level to provide effective and equitable balancing of existing uses with the growing needs of urban and industrial sectors.

Clearly, technological 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 partners can help by providing advice and support, but ultimately decisions about policies, laws, institutional structures, 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 over 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 coupled with an on-going system of 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 an individual country over time. Openly disclosed, such comparative information can stimulate discourse and allow countries to track progress, identify areas in which they lag and excel, and highlight places where changes are indicated.

The MENA Regional Water Governance Benchmarking Project addressed this need by devising a framework for understanding and assessing water governance capacity and performance in Middle Eastern countries and applying it in six national settings. The framework defines concepts of *governance*, *policy*, *management*, and others and presents a strategy for assessing *de facto* water governance based on (1) essential water governance functions and (2) characteristics of governance

decision-making processes. It also suggests a three-tiered framework defining the structural capacity for effective water governance, comprising (1) policies, (2) laws, and (3) organizations.

Employing this framework, the project built several different assessment methodologies, one for policy and legal documents, one for organizational coverage, and a third for actual water governance performance. These methodologies were then applied in various combinations in six MENA region countries to develop rating scores for different aspects of water governance in each. The short duration of the project did not permit assessment of changes over time in particular countries. However, the framework developed permits such assessments, and the project did establish baseline values for pilot countries.

I.2. CONCEPTS

The following concepts and definitions are summarized from the framework paper, which is included as Annex 1.

I.2.1. DEFINITIONS

WATER GOVERNANCE

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

There is often confusion over the meaning of the terms “governance” in general, and “water governance” in particular. We reviewed a number of definitions of the concept of governance, including those of the United Nations Development Program (UNDP) (*the exercise of economic, political, and administrative authority to manage a country’s affairs at all levels*) (UNDP, 1997) and the World Bank (*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). We also looked at definitions of water governance, including ones from IWMI (*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) and the Global Water Partnership (*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).

For some, the concept of governance is a broad one that includes both top-level decisions and routine administrative decision-making that is often referred to as “management.” Others see it as comprising only the higher-level decisions that establish the context for day-to-day decision making. In this form it encompasses decisions on sectoral policies and the overall organizational architecture of the sector but does not extend to routine administrative decision making. This is the interpretation adopted in the first *UN World Water Development Report* (UN WWAP, 2003). We adopt this more restricted view for our analysis, treating water governance as an upper-level

context-setting decision process, though the framework developed can easily be expanded to encompass service delivery (management) as well.

Because we see governance in terms of decision making rather than a system or a structure, we have framed our definition somewhat differently than the widely-cited Global Water Partnership (GWP) one, but in a way that is broadly consistent with it and with the more general concept of governance, as developed by UNDP, the World Bank, and others (Box 1).

BOX 1. 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.

INSTITUTIONS AND ORGANIZATIONS

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 of the latter include sanctions, taboos, customs, and traditions. A classic example of the two, and the dynamics between them, is the system of customary water rights existing in many countries which, over time, is often replaced, progressively, by more formal government-administered property rights systems. In the water sector, informal and formal institutions can, and generally do, operate simultaneously.

Formal hierarchically-structured institutions are a subset of the broader category of institutions and the term “organizations” is used to describe these. An organization is thus a particular and important type of institution, but the two are not synonymous.

1.2.2. FRAMEWORK

STRUCTURE

For analytical purposes, governance structures can be divided into three groups: policies, laws, and organizations (Saleth and Dinar, 2004) (Box 2).

GOVERNANCE FUNCTIONS

The observation that while there are large differences in organizational structures across different countries, there is substantial consistency in the core functions that water sectors perform, led to the identification and elaboration of a set of core functions, called *standard water governance functions*, that must be performed by any effective national water sector (Box 3).

BOX 2. STRUCTURAL ELEMENTS OF WATER GOVERNANCE

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.

BOX 3. 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

After they were developed, these functions were thoroughly reviewed, tested, and revised in a number of trials and workshops and proved to be useful and effective in analyzing water governance performance.

GOVERNANCE DECISION-MAKING PROCESSES

Water governance and management together comprise a series of interlinked decisions. These decisions are of two types. The first type (governance) comprises top-level less-frequent decisions that set the context in which routine decisions are made by both public and private sector parties. Such decisions typically relate to establishment of policy, laws, rules, program priorities, and the like. The second class of decisions (management) comprises the routine day-to-day decisions related to water delivery, revenue collection, staffing, and so on.

The way in which both types of decisions 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 who 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.

A great number of characteristics of “good governance” have been proposed over the past 20 years. However lists of principles and characteristics advanced are often a grab bag of arguably good features that lack internal coherence or a logical structure. We have considered a number of these lists of characteristics carefully and have filtered them using two primary criteria. First because we are aiming at a practical system of measurement and benchmarking, we had to be able to define the concepts we used operationally. This also meant that they had to be measurable. Second, because we saw 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 do not lend themselves to definition or measurement and are quite culture-specific.

The decision-making process attributes employed in the framework are described below.¹

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

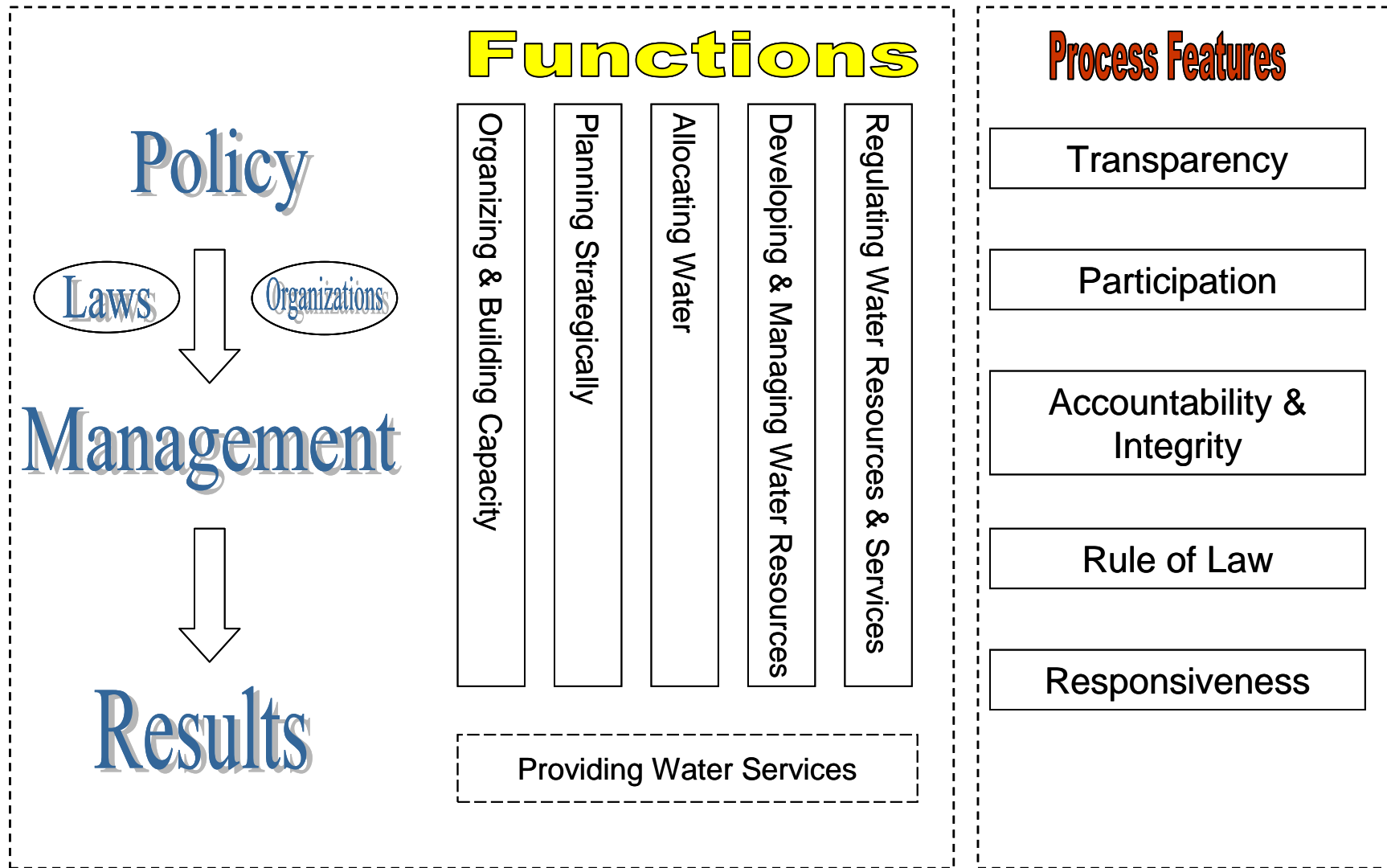
¹ Statements in italics are the definitions used by WWAP (2003). “Rule of law” is an exception and was taken from a UNDP list of features characterizing good governance (UNDP, 1997). The descriptive statement in italics under this dimension is from that document.

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.

The overall 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 capable 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 these goals. 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 I. Framework of analysis for water governance benchmarking



I.3. METHODOLOGY

In the ReWaB approach, water governance capacity is evaluated by a combination of policy, legal, and organizational assessments. Functional performance and decision-making processes are assessed by expert-based assessments conducted in the country. These different analytic tools used to make these assessments are described briefly below and in greater detail in two protocols which are attached as Annexes 2 and 3.

I.3.1. POLICY AND LEGAL ANALYSIS

The policy and legal analyses provide document-based information on the context for water governance decision-making in the target country. This analytic component comprises a systematic analysis of a set of water-related policy and legal documents retrieved early in the overall assessment process. The documents considered included national policy papers and laws that were either specifically aimed at water, or were focused on other issues but with a direct impact on water management and governance. Examples of the latter are environmental rules and human health regulations.

The document analysis considered the mandates for carrying out standard water governance functions and the formally-mandated characteristics of the decision-making processes used in making water governance decisions. Each prong of the analysis was applied to policy and legal material separately, so that consistency could be assessed. The analysis produced a qualitative assessment of the policy and legal documentation and two sets of quantitative scores that summarize that qualitative assessment.

To produce the numerical scorings, a team of three analysts assigned and evaluated “tags” for each framework element, assessing the extent of coverage and assigned two scores – one for policy and one for law. Scores ranged between 1 (framework element is not covered in the provided documents) and 4 (extensive document coverage). The three analysts assigned their scores independently and then reached consensus on values assigned to each dimension through one or more iterative deliberation meetings.

I.3.2. ORGANIZATIONAL ANALYSIS

During preliminary interactions with local informants, important water governance-related organizations in each country, both public and private, were identified and their formally-mandated roles outlined. These organizations were then examined, relative to the standard water sector functions, to map the *de facto* organizational coverage of the functions. Analysis employed a matrix-based assessment tool in which panels of national water experts rated the degree of *de facto* involvement of each organization in decision-making regarding particular water governance functions in that country. Typically, groups of 20 to 25 experts, drawn from five different water sub-sectors,² discussed each function in mixed groups and then rated individually the influence of the various organizations, resulting in an Organizations and Functions (O&F) matrix. O&F matrices from the focal countries are included in the country summaries in Annex 4.

² Water resources, irrigation, other water-using sectors, national policy-makers, and advisors.

I.3.3. EXPERT-BASED RATING

The expert-based assessment evaluated the overall level of national effectiveness in performing the five standard water governance functions (functional effectiveness) and the level of application of five characteristics of good governance decision-making (process features) in Figure 1. Both ratings were derived from questionnaires completed by national water experts.

For the assessment of functional effectiveness, the participants in the rating sessions were asked to complete a questionnaire using a four-value rating scale. Respondents discuss the scoring in mixed groups and then complete questionnaires individually.

A second questionnaire was used to rate the degree of application of the five good governance decision-making features defined in the ReWaB framework. Country performance was assessed against the highest conceivable level of each of the five features while considering a common set of five water-related scenarios used in all countries in which the assessment was conducted. The scenarios employed in the initial assessments were (1) increasing demand for drinking water; (2) decreasing groundwater levels; (3) strategic planning for a national water policy; (4) regulating water quality in rivers, aquifers, and waterways; and (5) matching supply and demand in agriculture. For each scenario, participants used a four-value scale to score two to five statements related to each of the five decision-making features (participation, transparency, integrity and accountability, rule of law, and responsiveness). Participants first discussed the scenarios in mixed groups and then completed the questionnaire individually.

2. RESULTS OF THE ASSESSMENTS

2.1. COMPARATIVE RESULTS

The purposes of the assessment process included (1) producing a snapshot of water governance in a particular country that could be used as a base to assess changes over time, (2) providing for comparisons of water governance capacity and performance among countries, and (3) providing a basis for a national dialog of water governance status and the causes of any perceived deficiencies.

Two-page water governance summary profiles for five of the countries analyzed are attached in Annex 5.³ These country profile summaries provide a quick overview of the water governance situation in each of the pilot countries, accompanied by a listing of strengths and weaknesses. The profile summaries are backed-up by the country profiles themselves, which provide an in-depth assessment of water governance in each country (Annex 4). The quantitative results of the country assessments are reported here in consolidated form, and important outcomes highlighted⁴.

2.1.1. CAPACITY AND FUNCTIONAL PERFORMANCE

Capacity relates to the policy and legal structure which countries have put in place to facilitate the five standard functions of water governance. Functional performance relates to the effectiveness with which these functions are actually performed. Comparisons among the pilot countries are shown in Table 1.

³ These summaries are also included in the country profiles presented in Annex 4, but are collected here into a separate annex to make them easier to compare.

⁴ Note that no documents were collected for Yemen; policy documents were only available for Egypt and Jordan; and English translations of Turkish legal documents were not available in time to be included in the analysis.

Table 1. Capacity and performance of water governance standard functions in focal countries

FUNCTIONS						
Policy Documents						
Country	Organizing & Building	Planning	Allocating	Developing & Managing	Regulating	Average
Egypt	2.8	2.8	1.5	2.0	1.6	2.1
Jordan	3.4	4.0	1.5	3.0	2.8	2.9
Morocco						
Oman						
Turkey						
Yemen						
Average	3.1	3.4	1.5	2.5	2.2	
Legal Documents						
Country	Organizing & Building	Planning	Allocating	Developing & Managing	Regulating	Average
Egypt	2.9	1.5	2.3	2.4	2.4	2.3
Jordan	2.8	1.8	2.5	2.4	2.4	2.4
Morocco	2.8	2.3	2.8	2.0	2.4	2.5
Oman	1.9	2.0	1.3	1.8	2.0	1.8
Turkey						
Yemen						
Average	2.6	1.9	2.2	2.2	2.3	
Expert Rating - Functional Performance						
Country	Organizing & Building	Planning	Allocating	Developing & Managing	Regulating	Average
Egypt	3.0	3.1	2.5	2.9	2.6	2.8
Jordan	2.9	3.2	2.8	3.1	3.1	3.0
Morocco	3.1	3.2	3.1	3.0	1.9	2.9
Oman	2.8	3.0	3.0	3.0	2.9	2.9
Turkey	3.1	2.9	2.8	2.9	2.4	2.8
Yemen	2.3	2.0	1.7	1.8	1.8	1.9
Average	2.9	2.9	2.7	2.8	2.5	

In the two countries for which water policy documents were analyzed, the coverage of water sector policies in Jordan was much better than in Egypt. This was true for all functional areas except water allocation, where coverage was poor in both countries. However, this strength did not carry over into the legal realm, where only a slight difference in coverage was apparent. The legal regime in Morocco was slightly superior to both Jordan and Egypt, while the coverage of the

five basic water governance functions in Oman’s legal documents was significantly less extensive than the other three countries assessed.

Strategic planning was the weakest function in the legal coverage across all four countries analyzed for legal coverage, while organizing the sector and building capacity was consistently the strongest function. This reflects the fact that in the Middle East, laws are often special purpose legislation, drafted primarily to establish new organizational units, while more comprehensive water laws are less common.

In the expert rating of functional performance, Jordan enjoyed a slight edge overall (3.0), performing well across the board, though not always turning in the top-rated performance in each functional area. Jordan was followed by Morocco and Oman with an average rating of 2.9, and Egypt and Turkey, each with a rating of 2.8. Yemen ranked far behind at 1.9 overall.

With respect to particular functions, *Allocating* and, particularly, *Regulating*, ranked below the other three functions in terms of effective performance. This pattern was also relatively consistent across countries, although there were some exceptions. Morocco, for example, was rated by its experts as relatively effective at allocating and reallocating water. However, the relative weakness of these two functions overall reflects a couple of things. First, there is a long-standing emphasis in the region on developing new sources of supply, in contrast to an explicit reallocation of existing supplies. Second, the state plays a predominant role in both developing and managing water resources and delivering water-related services. Because of its pervasive involvement, the state often perceives little need to regulate itself. The idea of establishing an independent regulatory authority as a check on the discretionary power of the state is finally, but slowly, emerging in the region. Jordan, for example is currently considering the establishment of a regulatory agency, independent of the Ministry of Water and Irrigation, to regulate the utilities providing domestic water service in the country.

2.1.2. DECISION-MAKING PROCESSES

Water governance is about making decisions, and the way in which those decisions are made is as important, in some ways, as the decisions themselves. The project identified five features of effective decision-making – (1) *participation*, (2) *transparency*, (3) *integrity and accountability*, (4) *rule of law* and (5) *responsiveness*. After the initial round of assessments, it was apparent that, while *rule of law* and *responsiveness* had clear and specific definitions in the water governance framework, it was difficult to communicate those rather specific meanings to the professionals doing the rating in the sample countries. As a result, these two characteristics were often ranked more highly than any of the other features, and often failed to correspond to independent notions of the extent to which these features characterized decision-making in the particular country. Consequently, the framework was revised and these last two features were dropped. As a result, the final assessment in the series, which was conducted in Yemen, used only three characteristics – transparency, participation, and integrity and accountability – and the fieldwork protocol now recommends using only these three characteristics in future assessments.

Scores evaluating the extent of country policy and legal document coverage of the basic characteristics of good governance decision-making, together with ratings of their actual application, are shown in Table 2.

Table 2. Decision process feature capacity and performance in focal countries

DECISION PROCESSES							
Policy Documents							
Country	Participation	Transparency	Integrity & Accountability	Rule of Law	Responsiveness	Average	
Egypt	2.0	4.0	2.0	1.0	3.0	2.4	
Jordan	3.0	4.0	2.0	2.0	4.0	3.0	
Morocco							
Oman							
Turkey							
Yemen							
Average	2.5	4.0	2.0	1.5	3.5		
Legal Documents							
Country	Participation	Transparency	Integrity & Accountability	Rule of Law	Responsiveness	Average	
Egypt	3.0	3.0	2.0	1.0	2.0	2.2	
Jordan	3.0	1.0	2.0	1.0	2.0	1.8	
Morocco	3.0	3.0	3.0	4.0	3.0	3.2	
Oman	3.0	2.0	2.0	3.0	2.0	2.4	
Turkey							
Yemen							
Average	3.0	2.3	2.3	2.3	2.3		
Expert Rating - Process Features							
Country	Participation	Transparency	Integrity & Accountability	Average (3)	Rule of Law	Responsiveness	Average (5)
Egypt	2.6	2.7	2.6	2.6	3.2	3.0	2.8
Jordan	2.0	2.2	2.4	2.2	2.7	2.8	2.4
Morocco	2.9	2.8	2.2	2.6	3.4	3.3	2.9
Oman	2.3	2.3	2.1	2.2	3.0	3.0	2.5
Turkey	2.5	2.3	2.5	2.4	3.1	3.0	2.7
Yemen	2.2	2.1	2.1	2.1			
Average	2.4	2.4	2.3		3.1	3.0	

For the two countries with policy documents analyzed, Jordan clearly had the more comprehensive policy coverage of practices of good water governance decision-making, outranking Egypt in the areas of *participation*, *rule of law*, and *responsiveness*. In terms of legal coverage, however, Jordan scored the lowest of the four countries analyzed. This suggests that while Jordan officially values these characteristics of good decision-making, it has failed to translate them into laws to actually mandate their practice. This was particularly noticeable in the area of transparency, where the policy document score was 4.0, while the legal score was just 1.0. Morocco stood out as having the most comprehensive legal regime to support good water governance decision-making.

In terms of actual performance in applying good governance decision-making practices, Egypt and Morocco stood out as most effective, followed by Turkey. Trailing were Jordan, Oman, and Yemen.⁵ For Jordan, the relatively low score in applying these practices is consistent with the scanty backing for them in its legal regime and, again, represents a contrast with the good intentions expressed in its policy documents. Morocco, by contrast, stands out for having both a strong legal mandate for good governance decision-making practices and for their application.

2.2. NEXT STEPS

During the final year of the project, we took steps to further involve the Stockholm International Water Institute (SIWI) in the project, both to access their expertise and to take advantage of their ongoing program in water governance as a means of carrying the assessment and benchmarking activities developed into the future.⁶ SIWI's note describing its approach to continuing development and application of the benchmarking system is included in Annex 6. The conceptual framework and methodologies developed by the project will also be available on the SIWI website for others who wish to take advantage of them.

⁵ The set of indicators was reduced from 5 to 3 following a review of experience in the first five countries, and so comparisons involving Yemen relate only to the first three indicators.

⁶ Initial contact with SIWI on behalf of the project was established by the project's first USAID COTR, Mr. Eric Viala.

3. PROJECT ACTIVITIES

3.1. PARTNERS

The project was implemented by a group of seven organizations. International Resources Group (IRG) led the project, working with the Institute for Water and Watersheds at Oregon State University (OSU), the International Water Management Institute (IWMI), Computer Assisted Development (CADI), Nile Consultants in Egypt, and ECO Consult in Jordan. Later on SIWI joined the implementing team to provide an ongoing home for the work and to facilitate further development and application of the tools and systems developed. In addition, selected individual consultants were engaged from time to time in countries in which assessments were carried out.

3.2. CHRONOLOGY

An RFTOP for the project under the Water IQC II was issued on May 29, 2008. In response, IRG submitted a proposal on June 25, 2008. A contract was awarded to IRG with effect from August 27, 2008.⁷ The original period of performance was from August 27, 2008 to February 28, 2010. The project was subsequently granted a no-cost extension through October 31, 2010. A workplan for the project was submitted in October 2008, and quarterly reports were provided every three months, beginning in January 2009. This final report was submitted in November 2011.

3.3. TASKS

The project was organized into four tasks. These are:

1. Development of a regional water governance benchmarking framework
2. Legal, institutional, and policy assessments in selected countries
3. Definition of the regional water governance benchmarking system
4. Presentation and promotion of the system

The first three tasks were approached sequentially, but with some overlaps. The fourth task was a cross-cutting one that was implemented concurrently with Tasks 1 through 3, though it naturally became more pronounced toward the end of the project.

3.3.1. TASK 1: WATER GOVERNANCE BENCHMARKING FRAMEWORK

The first task was the critical one of developing the conceptual framework which would define “governance” and other concepts, guide the creation of indices, and provide the structure for the benchmarking process. To do this, a number of existing frameworks were critically reviewed, including closely-related ones associated with the popular concept of IWRM. This process resulted

⁷ Task order EPP-I-04-04-00024-00 for contract (EPP-I-00-04-00024-00).

in a draft *Concept and Approach Framework* paper, which was extensively reviewed inside and outside the project and then presented and discussed at a project-wide workshop held in Ain Sokhna, Egypt in March of 2009.

While the basic tenets of the overall framework remained constant and guided project implementation throughout, the paper was revisited and adjusted as experience with applying its concepts was acquired. The final version is shown as Annex 1. The key concepts of the framework are summarized in Section 1 of this report.

3.3.2. TASK 2: POLICY, LEGAL, AND ORGANIZATIONAL ASSESSMENT

The conceptual framework made an important distinction between governance capacity, and governance performance. In essence, governance capacity is defined by the policy, legal, and organizational structure within which water governance and management operate in a given country, while performance results from the decisions taken within this framework.

Task 2 involved assessing this policy, legal, and organizational structural framework. Five regional countries were selected, in conjunction with USAID, as focal countries for the capacity and performance assessments. These were Egypt, Jordan, Morocco, Oman, and Turkey.⁸ To undertake the assessments, it was first necessary to develop repeatable methodologies for each of the analyses. It was decided to employ a document-based approach to analyze the policy and legal framework in each country, while the organizational structure was assessed by experts in each country using a standardized matrix, which was then customized for each country.

For the policy and legal analyses, a database was first assembled from as many relevant policy and legal documents as could be obtained in each country. Documents were sought in both the primary language of the country, usually Arabic, and in English⁹. These documents, in pdf format, were entered into a searchable on-line database which is available on-line and currently maintained by OSU.

A team of analysts then carefully reviewed the text of each of the documents and attached codes derived from the conceptual framework to all relevant passages. These coded passages were then analyzed using a formal process involving multiple analysts to create a set of ten scores for the policy framework, and another 10 scores for the legal framework for each of the five countries. A detailed discussion of the methodology employed is contained in the *Desk Study Protocol* which is available in Annex 2.

Since organizational forms differ widely from country to country, and because it was desired to include academic and non-governmental organizations along with public sector ministries and departments in the organizational analysis, a standardized expert-based process was employed. Local experts first identified the most important organizations in water governance decision-making in the country, and then assessed the extent of the influence of each over decisions made related to each of the five primary functions of water governance (see Section 1). The organizational assessment was undertaken as one part of a rating workshop held in each country, during which an expert-based assessment of water governance performance was also conducted.

⁸ A sixth country, Yemen, was added later in which only a performance assessment was conducted.

⁹ In Morocco, primary documents were usually obtained in French, while those from Turkey were obtained in Turkish.

3.3.3. TASK 3: GOVERNANCE INDICATORS AND BENCHMARKING SYSTEM

Indicator development for governance capacity; i.e. the policy, legal, and organizational framework; was carried out under Task 2 as described above. Indices for governance performance were then devised under Task 3 and applied in the five focal countries. An additional assessment of governance performance was conducted in Yemen during the period of the project's no-cost extension, making a total of six of these performance assessments conducted.

Performance assessments relied on an expert-based assessment in each country employing approximately 25 local water experts. To provide a balanced assessment, experts were drawn from five different strata in roughly equal numbers. These were:

- Water resources
- Irrigation
- Other water using sectors
- National policy makers
- Advisors

The “Advisors” category included academics, NGO representatives, and donor agency representatives. After orientation, experts were asked to complete two questionnaires – one related to performance of the five standard functions, and the other to the five characteristics of good governance decision making (see Section 1).

In practice, experts were invited to a two-day workshop and rating session, in which they were first provided with an orientation to the concepts and terms used in the assessment process. They then completed three exercises – the organizational assessment described under Task 2 above and the two performance assessments discussed here. The results of the three assessments were processed immediately and the two-day session concluded with a discussion and interpretation, by participants, of the consolidated results. Each country's results constitute a baseline assessment for that country. A detailed description of the process employed is contained in the *Fieldwork Protocol* included in Annex 3, and the six workshops and rating sessions which were held are documented in Annex 7. The results of the five original assessments were presented and discussed in a regional workshop held in Amman in June 2010¹⁰.

3.3.4. TASK 4: OUTREACH AND PROMOTION

Outreach and promotion constituted a thread woven through the entire project. It began with site visits to each country in which officials were briefed on the project and their cooperation with the assessment process secured. In each focal country, a local project representative remained in regular contact with national government officials throughout the project. Between 20 and 30 national experts were involved in the two-day workshop/rating session held in each country, which included an extensive orientation session. Three to five representatives from each focal country participated in project workshops in Ain Sokhna, Egypt and Amman, Jordan in 2009 and

¹⁰ The workshop was originally scheduled for February, but was cancelled and rescheduled as a result of the disruption to air travel caused by the Iceland volcanic eruption.

2010 respectively. The project framework and methodology were also central features of a one-week training program on water governance for future water leaders organized by the Arab Water Academy in 2009.

In addition to intensive interactions at the national and regional levels, the project organized sessions on water governance at the Stockholm Water Weeks of 2009 and 2010 for a world-wide audience and made presentations at several international water-related conferences. It also produced a promotional video describing the project and its approach to water governance assessment. Graduate students at OSU have independently used the project framework as the basis for at least two Master's theses.

3.4. OUTPUTS AND TOOLS

Outputs produced by the project are summarized below. These include a conceptual framework and a set of tools (methodologies) which can be used to re-assess governance in the surveyed countries or applied in additional countries. These tools gain much of their relevance and power from the coherence of the carefully-developed conceptual framework on which they rest.

The application of the expert-based assessment tools described in the Fieldwork Protocol yielded a set of six workshop reports, describing the results of the field assessments in each country. In some countries, the field assessments were combined with desk-based policy and legal analyses to comprise a comprehensive water governance assessment for the country. A cross-country assessment of the five countries is provided earlier in this report.

Substantive written project outputs comprise the following.

1. Water Governance Conceptual Framework
2. ReWaB Fieldwork Protocol (versions 1 and 2)
3. ReWaB Desk Study Protocol
4. Country Workshops and Rating Session Reports
 - a. Egypt
 - b. Jordan
 - c. Morocco
 - d. Oman
 - e. Turkey
 - f. Yemen
5. Country Profiles
 - a. Egypt
 - b. Jordan
 - c. Morocco

- d. Oman
 - e. Turkey
6. Project Final Report

As indicated above, the conceptual framework developed by the project has also served as a basis for at least two Master's theses,¹¹ and has been used by OSU as the basis for a set of graduate student projects in a course on public policy .

1. Brown, Bridget. 2010. Assessing water governance capacity in MENA: applying an institutional document analysis approach to Jordan. M.S. Thesis, Department of Geosciences, Oregon State University. <http://ir.library.oregonstate.edu/jspui/bitstream/1957/18260/1/BridgetBrownThesis.pdf>
2. Pak, Mariya. 2011. Assessing water governance capacity in the U.S. Bureau of Reclamation Albuquerque Area Office. M.S. Thesis, Department of Geosciences, Oregon State University. http://ir.library.oregonstate.edu/xmlui/bitstream/handle/1957/21783/Mariya_Pak_Thesis_2011_edits.pdf?sequence=3
3. Brown, Bridget, and Kirsten Winters. 2009. Water Policy in the Middle East North Africa Region: Comparative Analysis. Course paper submission, Department of Political Science, Oregon State University.
4. Five country case studies by various authors. Course paper submissions, Department of Political Science, Oregon State University.

The project organized special sessions on water governance at World Water Weeks 2009 and 2010 in Stockholm to report the results of its work, obtain feedback, and stimulate discussion on the topic of water governance and water governance assessment. Project personnel also made presentations on its water governance work at several other international workshops and seminars. These included the STRIVER conference on IWRM in Brussels, May 29, 2009; the American Water Resources Association Annual Conference in Seattle, November 11, 2009; and the annual International Commission on Irrigation and Drainage (ICID) conference held in New Delhi on December 11, 2009. The project's framework and governance assessment process was featured extensively in a training program on *Water Governance for Future Water Leaders* organized by the Arab Water Academy in Abu Dhabi from June 28 to July 2, 2009¹². PowerPoints of all of these presentations are available from IRG on request.

All of these outputs, including a short promotional video produced by the project, are available on the project website (www.rewab.net) until the end of 2011. After that time, they will be available on the Water Governance Facility at SIWI website (www.watergovernance.org) and at the USAID Development Experience Clearinghouse (<http://dec.usaid.gov/>).

¹¹ Theses were not funded by the project.

¹² This program was partially supported by an unrelated grant from USAID-OMEP.

REFERENCES

- Kaufmann, D., and A. Kraay. 2008. *Governance indicators: where are we, where should we be going?* Oxford, U.K.: Oxford University Press on behalf of the World Bank.
- North, D. 1990. *Institutions, institutional change, and economic performance*. Cambridge: Cambridge University Press.
- Rogers, P. and A. Hall. 2003. *Effective Water Governance*. TEC Background Paper 7. Stockholm: Global Water Partnership.
- Saleth, M. and A. Dinar. 2004. *The institutional economics of water: a cross-country analysis of institutions and performance*. Cheltenham, UK: Edward Elgar.
- Shah, T., and Van Koppen, B. 2008. *Is India ripe for Integrated Water Resources Management (IWRM)? Fitting water policy to national development context*. Colombo: IWMI.
- UNDP. 1997. *Governance for sustainable human development*, a UNDP policy document. New York: UNDP.
- World Water Assessment Program. 2003. *UN World Water Development Report 1*. Paris: World Water Assessment Program.
- World Bank. 2007. "Strengthening World Bank Group Engagement on Governance and Anticorruption." Washington, DC: Joint Ministerial Committee of the Boards of Governors of the Bank and the Fund on the Transfer of Real Resources to Developing Countries. Available at www.worldbank.org/html/extdr/comments/governancefeedback/gacpaper.pdf. Accessed March 19, 2009.

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