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MENA REGIONAL WATER GOVERNANCE BENCHMARKING PROJECT

FIELDWORK PROTOCOL – VERSION 2

October 2010

This report was produced for review by the United States Agency for International Development (USAID). It was prepared by International Resources Group (IRG) in association with International Water Management Institute, Institute of Water and Watersheds at Oregon State University, Computer Assisted Development Incorporated, Nile Consultants, and ECO Consult.

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DISCLAIMER

The author's views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government

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ACRONYMS

CADI	Computer Assisted Development Incorporated
ECO	ECO Consult
IRG	International Resources Group
IWMI	International Water Management Institute
IWW/OSU	Institute for Water and Watersheds/ Oregon State University
MENA	Middle East North Africa
NGO	Non-Governmental Organization
O&F	Organizations and Functions
OSU	Oregon State University
ReWaB	MENA Regional Water Governance Benchmarking Project
SIWI	Stockholm International Water Institute
TL	Team Leader
USAID	United States Agency for International Development

FOREWORD

A primary purpose of this project was to develop a field methodology that would support assessments of national water governance. This Protocol represents a distillation of the process that has emerged into a form that can guide others in applying it. Because changes, adaptations, and improvements to it should and, it is hoped, will occur, it also serves to document the present “state of play” and to serve as a foundation for those improvements. The protocol was revised following changes in parts of the methodology which were tested in Yemen in October 2010.

The protocol was drafted by Dr. Lucia De Stefano of IRG and Dr. Jonathan Lautze of the International Water Management Institute (IWMI). Revisions were drafted by Dr. Jacques Rey and Dr Hakan Tropp of the Stockholm International Water Institute (SIWI) and Dr De Stefano. In addition, the development of the process described benefitted from a great many other inputs – from other project team members, national collaborators, and workshop and rating session participants themselves.

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1. INTRODUCTION

1.1. PURPOSE

The purpose of this protocol is to document the Regional Water Governance Benchmarking (ReWaB) Project's approach to preparing and implementing field activities. These field activities, in turn, provide perception-based information on the performance of water governance decision-making in the target country¹. This information can be used, together with other data, to characterize and document the country's water governance regime. The protocol describes session logistics, participant selection, and the implementation of activities and reporting.

1.2. STRUCTURE

The fieldwork is designed to be implemented during two one-day sessions – one called the **Workshop** and the other the **Rating Session**. These sessions can be held separately or back-to-back (preferred).

The purpose of the Workshop is to (a) introduce the ReWaB project to participants, (b) discuss and share concepts and examples of water governance and water governance assessment, and (c) complete the Organizations and Functions (O&F) Matrix. This is accomplished through presentations, discussion, and participant completion of exercises. This Workshop is held before the Rating Session, in order to strengthen participants' understanding of water governance concepts and the project approach and help them make well-informed choices during the rating exercises.

The purpose of the Rating Session is to collect water governance assessments from a range of knowledgeable people with differing perspectives on water resources governance in the country. This is accomplished through participant completion of the **Decision-Making Features Questionnaire** and the **Outcomes Effectiveness Questionnaire**. At the end of the Rating Session, participants discuss, first in groups and then in the plenary, strong and weak points of water governance in their country, and then formulate recommendation to tackle water governance short-comings.

1.3. LOGISTICS

The Workshop and the Rating Session are held at a hotel or conference facility in a central location in each country, usually the capital city. One coffee break and lunch are provided for each session.

¹ A description of the project and background material is available at the project website www.rewab.net.

Optionally, and depending on local norms, an additional coffee break can open the day. The core activities of the Workshop and Rating Session generally take about 5 hours each. Written materials (three exercises and the session agendas) are translated into the local language and provided to participants approximately two weeks in advance of the event via email.

Preparing for the two sessions requires local administrative support for the following activities.

- Arranging for the conference facilities, including lunches and coffee breaks
- Collecting and checking the contact details for the participants to be invited
- Preparing and sending out invitations
- Following up on invitations, including receiving attendance confirmations, making follow-up phone calls, and answering queries on session logistics
- Printing out the agenda and work materials and assembling participants folders
- Preparing the participant sign-in list
- Preparing name tags for the participants
- Preparing table name tags for the official opening of the event
- Preparing and printing out group lists
- Preparing expense reimbursement forms (if needed)
- Preparing a list of participants that actually attended the event, including updated contact details
- Insuring that the meeting room set-up is correct and complete
- Being available during the event to solve any logistical problems that arise

All the activity and logistic materials should be ready no later than the day before of the event and the meeting room should be prearranged in tables for 5-8 people each and a head table for the official opening. The room should be equipped with a projector and screen for powerpoint presentations.

1.4. STAFFING

In general, 3 to 5 project staff members are needed to conduct each session. These include at least one person (ideally two) very familiar with the benchmarking methodology and the activities to be conducted, a least one local facilitator/water expert (ideally two), and a person to carry out secretariat tasks (see section 1.3). The support of local facilitators is particular important to help the participants frame the project content and objectives within the local context. Moreover, if the other project staff members are not proficient in the local language, the local facilitators can help understand and guide the discussion in

groups and in the plenary sessions, and can summarize the presentations and instructions in the local language.

If the lead facilitator has not conducted the process before, he/she should participate in at least one pair of sessions with an experienced facilitator to fully understand the activities and the type of dynamics that he/she could encounter. Local facilitators should be briefed in advance of the event to ensure that they are familiar with the session objectives and content and with the materials to be used. This briefing is particularly important because (a) local facilitators may suggest changes in the agenda to adapt it to the specific needs and expectations of the country, and (b) local facilitators must work in an integrated way with the external facilitators in guiding the participants during the event. It is important, therefore, that their questions and comments relative to the event activities are addressed before the start of the session.

1.5. PARTICIPANT SELECTION

The integrity and reliability of the information produced by the Workshop and Rating Session depend strongly on obtaining input from a carefully structured and balanced set of participants. Participants are selected to represent five standard strata of water professionals in each country: (a) water resources, (b) irrigation, (c) other water using sectors, (d) national policy-makers and (e) advisors (see Appendix 1 for sub-categories under each strata). Roughly equal numbers of participants should represent each strata. Some of the strata – national policy makers, for example – may be harder to populate than others, and special efforts may be required to obtain adequate representation from this group. During subsequent data analysis, responses will be weighted so that each strata has an equal weight in overall averages.

The invitation list is drawn up by identifying a set of organizations, or particular departments of organizations, that fit into each of the above-mentioned strata. For each organization or department identified, the organizers will determine how many persons should be invited to attend the two sessions and, if possible, identify names of individual participants to represent the organization or department. Local partners will apply their judgment in recommending organizations and specialists who understand water governance generally and are knowledgeable about national water resources issues. Wherever possible, invitations should be addressed to individuals within organizations who fit both the stratification criteria and the individual criteria mentioned above. This is usually feasible in the case of universities, NGOs, water users associations, and private companies. In the case of government bodies, the invitation, sometimes though not always, may need to be sent to the head of the relevant department or agency, explaining the experience and perspective required and requesting him/her to designate a

specified number of staff members to participate in the two sessions. The local partner should guide the choice of approach. If invitations are sent to a department or agency, the local partner may be able to suggest informally to the agency names of individuals who might be appropriate for selection. In any event, the invitation should be targeted on specific departments based on the stratification plan, and not on the agency at large. The table shown in Appendix 2 can aid the process of identifying and keeping a record of potential participants.

The organizers should target an actual attendance of at least 25 participants at each session. Since experience shows that 20-25% of the invited participants will not show up on the day of the session, the organizers should invite 32-35 people, with 6-7 people invited from each strata. It is very important that the same people attend both sessions to take advantage of the understanding of issues and concepts developed during the Workshop. Ideally, the Workshop and Rating Session will be held back-to-back, making this continuity easier to obtain. If this is not possible, it may be advisable to invite a still larger number of people to the Workshop (say 35 to 40) so that at least 25 people from this group are available for the subsequent Rating Session.

Once the final list of attendees is complete, heterogeneous groups of 5 to 7 people each are created by selecting participants so that each strata is represented in each group. Participants will sit and work in those heterogeneous groups, called table groups, throughout both the Workshop and the Rating Session.

2. PREPARATORY WORK

When initiating fieldwork activity in a country, the benchmarking team undertakes the following preparatory steps.

1. Identify a consulting firm or partner organization that knows well the water sector and how to deal with the public administration. The local partner should have the capacity to conduct secretariat tasks and also have access to one or two knowledgeable persons who can act as facilitators in the local language during the Workshop and Rating Session.
2. Make contact, ideally through personal meetings, with senior officials in the dominant water-related public agency in the country to explain the water governance assessment process and its benefits, secure their involvement, and obtain their advice on how to proceed.
3. Send a formal letter to the senior representative of the above-mentioned organization signed by the assessment leader informing him/her about the initiative (objectives, sponsor, partners, expected outcomes), explaining why the country was chosen and the benefits to the country, and asking for his/her support. Subsequent follow-up through both formal and informal channels will likely be needed, and the local partner can play a key role in this.
4. Once an official response is received, identify, with the local partner, organizations and individual participants to be invited, using the five strata as a framework and following the approach outlined above.
5. Identify, with the local partner, 3 or 4 key water challenges in the country. Challenges are selected because (a) they are important in the country studied and (b) the main decisions taken to address them cover the five water resource Standard Functions. Include these challenges in the **Decision-Making Features Questionnaire**, while leaving blank the section relating to the key decisions taken to address them which will be identified during the Workshop.
6. Arrange translation of the O&F Matrix and the two scoring exercise questionnaires into the local language, ideally by a person familiar with the project. If it is necessary to use an outside translator, the local partner should check the translation very carefully.
7. Select dates for the two sessions (ideally at least 4 weeks in advance), taking into account local holidays and major water-related events occurring in the country and availability of appropriate meeting facilities.
8. Undertake an agreement with the selected hotel, reserving meeting rooms and equipment and arranging for food and beverage service.
9. Send out invitation letters by email or fax and follow up with phone calls as needed. In some countries, email may not be an effective way to communicate and fax communication is more effective. In some cases also, the norm is that a participant answers only if he/she is not attending. The local consulting partner is critical in understanding and following local norms in this regard.
10. Send the translated activity materials to the confirmed participants.

11. Allow one full workday prior to the event for the external facilitators to interact with the local partner to insure that arrangements are in place and to brief the local facilitators on the tasks to be performed.

3. WORKSHOP

3.1. OVERVIEW

The Workshop is designed to acquaint the participants with the concepts of water governance and the framework being employed in the assessment and to develop a picture of the organizations active in the nation's water sector and the roles they perform. This familiarization is achieved through (a) presentations about the project and discussions of water governance concepts, (b) presentation of examples of water governance in the hosting country by a local expert, and (c) completion of the O&F Matrix.

After signing in (Sample Registration Form in Appendix 3) and receiving a folder with the Workshop materials (name tag, agenda of the day, blank O&F Matrix, and list of Standard Functions and Sub-functions), participants are invited to sit at the table to which they have been assigned by the project staff.

After an official opening – ideally highlighted by a representative of an organization with a central role in the country's water sector – project staff give an overview of the project (objectives, territorial scope, and project team), present definitions for “water governance”, “benchmarking” and other key terms, and outline the project methodology. The purpose of this presentation is twofold. First, it familiarizes participants with the project and its concepts and terminology, and second, it helps them understand the purpose of the three forms they are asked to complete during the Workshop and Rating Session.

The introduction to the project is followed by a presentation on the key water challenges which were identified in advance. This presentation is usually made by a local facilitator or resource person, but a project staff member should work closely with the local facilitator in preparing it to insure that it is consistent with the concepts and definitions used by the project. The purpose of this presentation is to link the theoretical concepts of the project with country reality, to identify important decisions associated with the 3 or 4 key challenges, and to trigger questions and awaken participants' interest in water governance issues.

Immediately after the presentations, the participants are asked to work in groups to identify the main decisions taken over the past few years to address the key water challenges presented. After feedback from the groups on their findings, the floor is opened for questions and discussion.

Once participants are familiar with the project, they are guided through the completion of the O&F Matrix. This matrix is designed to elicit and document the distribution of roles among the various water-related organizations in the country. Project staff give instructions for completing the O&F Matrix and some examples. Participants then work in table groups to complete the matrix. Each group should reach consensus among its members and produce only one matrix per table. Project staff will (a) ask the group to identify a group member to summarize their discussion and report their results to the plenary, (b) stress that all of the sub-functions should be kept in mind during the exercise, not only the main Standard Function names that appear in the matrix, (c) stress that they should rate actual practice and not “on-paper” responsibilities, and (d) give an approximate timeframe to complete the matrix (about 1:15 hours).

The facilitators monitor the groups discussions and processes to answer questions, spur discussion if needed, and help overcome any bottlenecks in the group discussion. At the end of the exercise, one rapporteur for each group presents the results of the discussion to the plenary. An open discussion follows. The project staff then wrap up and close the day.

Project staff and local consultants will work jointly to present and facilitate the activities, in English and in the most appropriate local language. The time allotted to each activity and the sequence is shown below (to be adapted to the country’s needs and norms in cooperation with the local facilitators).

Tentative Agenda (about 5 working hours)

30 min	Registration and coffee/tea (coffee/tea optional)
20 min	Official opening
30 min	Introduction to the project and explanation of basic concepts
15 min	Presentation on key water challenges in the country by local expert
35 min	Identification of main decisions taken to address the key water challenges and feedback
20 min	Q&A and discussion
1 h 15 min	O&F Matrix
1 h	Feedback and discussion

15 min Feedback on the workshop process and methodology

Note: lunch and breaks should be placed in the agenda according to country norms.

3.2. ORGANIZATIONS AND FUNCTIONS MATRIX

This exercise generates information on the distribution of roles among important water-related organizations in the country. Since there is no “ideal” role distribution, the results cannot be used for assessing or ranking countries. However, it can give an idea of the number of actors involved in the various functions, and where there are gaps. In addition, completing the matrix helps participants become familiar with the concept of water resource Standard Functions – a concept that is also used in the Rating Session.

INFLUENCE SCORING

- 1 No Influence
- 2 Minimal influence
- 3 Moderate influence
- 4 High influence
- 5 Very high influence
- NA No answer/don't know

The matrix (see Appendix 4) has on its vertical axis the name of the water-relevant organizations in the countries (identified prior of the exercise with the local partner) and on its horizontal axis the names of the five Standard Functions in a water resource sector (see Appendix 5).

During the exercise, participants will be asked to:

1. Check the list of organizations and add any missing organizations the group feels are essential. This should be done only for significant omissions. When the facilitators agree that an organization should be added to the matrix, then they should inform all of the groups and ask them to add the organization to their matrix as well.
2. Assign a value assessing the level of influence each organization has over decision making related to each of the five Standard Functions, using the scale in the box at the right. Facilitators make very clear that it is the actual level of influence and not the nominal or ‘on paper’ degree of influence that should be rated.

In this exercise, “influence” means that the organization “has an impact on the decisions that are made relative to this Function.”

As mentioned above, participants discuss the matrix in groups and complete it in groups. This means that the members of each group produce only one matrix per group, after reaching a consensus on the scores they wish to assign.

4. RATING SESSION

4.1. OVERVIEW

The purpose of the Rating Session is to collect assessments from a range of knowledgeable perspectives on water resource decision-making processes and water resource outcomes in the country. This is accomplished by having participants complete the decision-making features and the outcomes effectiveness questionnaires.

Three major activities are undertaken: (1) assessment of five features of decision-making related to water resources (**Decision-Making Features Questionnaire**, Appendix 6), (2) assessment of the effectiveness in performing five water resources Standard Functions (**Outcomes Effectiveness Questionnaire**, Appendix 7), and (3) discussion of strong and weak points of water governance in the country and formulation of recommendations to enhance it.

The day starts with participant sign-in and delivery of Rating Session material (name tag, agenda of the day, **Decision-Making Features Questionnaire**, **Outcomes Effectiveness Questionnaire**, and a consolidated O&F Matrix from the preceding Workshop). Participants are invited to sit at a pre-assigned table with 5 or 6 participants from other water sub-sectors.

Since the Rating Session will have been preceded by the Workshop, and since the large majority of participants will have participated in the Workshop, there is generally no need for an opening ceremony or project overview. Instructions for completing the exercises are provided in the opening plenary session, while the specific exercises are undertaken in mixed table-based groups. Participants are asked first to discuss the questions and issues in the exercise in a group, and then to complete each questionnaire individually.

The first activity is completing the **Decision-Making Features Questionnaire** rating the degree to which three features of decision-making (transparency, participation, integrity/accountability) are typically at work when the country formulates its responses to a set of key water challenges². Participants assess on a 1 to

² The protocol originally assessed all five of the decision-making process features contained in the framework. Only three of the features are currently recommended for assessment.

4 scale the degree to which each of these decision-making characteristics is at play in the different challenges. The second activity assesses the country's level of effectiveness in performing the five water resource Standard Functions.

The day concludes with a feedback session where participants are asked to work in groups to identify the strong and weak points of water governance in their country, and to formulate recommendations on concrete actions that could be taken to improve water governance. Groups are asked to take into account ideas and issues raised during the O&F Matrix exercise as well as the two rating exercises. In case they wish to refer to the project material, they are provided with a summary O&F Matrix created in advance from the data generated during the Workshop and they will keep the two questionnaires they just completed until the end of the Session. Groups are asked to record the conclusions of their group discussion on a flip chart and to appoint a rapporteur to present them to the plenary. The groups' debriefings to the plenary are followed by open discussion. The project team will use the groups' flipcharts and the oral debriefing to capture the content of the discussion and include them in the Workshop/Rating Session report. At the end, project staff wrap up and close the event

As at the Workshop, project staff and local facilitators work jointly to present and facilitate activities in English and in the most appropriate local language. The time allotted to each activity and the sequence is shown below (to be adapted to the country's needs and norms in cooperation with the local facilitators).

Tentative Agenda (about 4½ to 5½ working hours)

If the Workshop and the Rating Session are held back to back:

10 min	Participant sign-in and delivery of working material
20 min	Introduction to the Rating Session
75 min	Decision Making Features Assessment (instruction and scoring)
45 min	Functional Effectiveness Assessment (instructions and scoring)
45 min	Discussion in groups on water governance (strong and weak points)
60 min	Reporting and discussion
15 min	Feedback on the workshop process and methodology

If the Workshop and the Rating Section are held more than one week apart:

30 min	Registration and coffee/tea (coffee/tea optional)
20 min	Official opening (optional)
40 min	Introduction to the project and to the Rating Session
75 min	Decision Making Features Assessment (instruction and scoring)
45 min	Functional Effectiveness Assessment (instructions and scoring)
45 min	Discussion in groups on water governance (strong and weak points)
60 min	Reporting and discussion
15 min	Feedback on the workshop process and methodology

Note: lunch and breaks should be placed in the agenda according to the country's norms.

4.2. DECISION MAKING FEATURES QUESTIONNAIRE

This exercise (Appendix 6) assesses the application of three characteristics of governance decision-making when facing key water challenges. Typical country performance is assessed against the highest conceivable level of each of the three features. The key water challenges that are used in the assessment are specific to the country and have been pre-identified by the project team and the local consultant as described earlier.

For each challenge, participants are asked to use a four-point scale shown in the box at the right to score 2 to 5 statements related to the three decision-making features – participation, transparency, integrity and accountability. Participants are requested to discuss the scoring in groups and then complete the questionnaire individually.

DECISION MAKING PROCESS SCORING

- 4 Yes, in all or almost all cases
- 3 Generally yes, but not in all cases
- 2 Only in some cases
- 1 No, in all or almost all cases
- NA No answer/don't know

4.3. OUTCOMES EFFECTIVENESS QUESTIONNAIRE

This questionnaire (Appendix 7) is designed to assess the overall level of national effectiveness in performing the five water resource Standard Functions. The results are used to assess the functional performance of the water sector, disaggregated in two subsectors, (i) water for agriculture and (ii) drinking water supply. The questions included in the questionnaire refer to the five Standard Functions as follows.

- F1: Questions 1 to 9
- F2: Questions 10 to 14
- F3: Questions 15 to 18

- F4: Questions 19 to 22
- F5: Questions 23 to 29

Participants are asked to complete the questionnaire for each question and both sub-sectors using the same rating scale used in the **Decision-Making Features Questionnaire**. Participants discuss the scoring in groups and then complete the questionnaire individually.

5. REPORTING

Following the conclusion of the Rating Session, a **Workshop and Rating Session Report** is prepared, documenting the two sessions and summarizing the primary results of the activity³. This report includes the main descriptive characteristics of the Workshop (venue; date; facilitators; number of participants; names, organizations, and email addresses of participants; agenda; and activities undertaken) as well as the data collected during the participant exercises. It will not include extensive data analysis or interpretation, since its purpose is to document the Workshop and to produce quickly a write-up that can be circulated to sponsors, senior officials and others who have expressed interested in the sessions. An example of a report is provided in Appendix 8.

Project staff also produce a confidential internal note describing any problems encountered, lessons learned, feedback from participants on the Workshop and Rating Session processes, and suggestions for improving future sessions. The project team should also keep for future reference a list of participants' contact details (which is not included in the **Workshop and Rating Sessions Report**) and the presentations used.

The data gathered through the three exercises is transcribed in a data spreadsheet, accompanied by a metafile explaining the data structure within the spreadsheet which can then used in subsequent analysis.

³ If the two sessions are separated in time, a draft Workshop report is prepared after the Workshop and then updated following the Rating Session.

APPENDIX 1: STRATA FOR SELECTING PARTICIPANTS

1. Water resources

- a. Government water planning department
- b. Water resource data collectors and keepers
- c. Ground water department
- d. Basin planning and management organizations
- e. Environmental agencies

2. Irrigation

- a. Irrigation department/ministry
- b. Water Users Association representatives
- c. Agricultural department/ministry

3. Other water using sectors

- a. Municipal water utilities or departments
- b. Regulators for water utilities
- c. Industrial users
- d. Hydropower/fisheries/navigation/recreation
- e. Environmental regulators for wetlands and instream uses

4. National policy makers

- a. Planning ministry
- b. Finance ministry
- c. Legislature
- d. Office of the nation's chief executive (king, PM, or president)
- e. Judiciary

5. Advisors

- a. Academics
- b. Consultants
- c. Environmental NGOs
- d. Donors

APPENDIX 2: SAMPLE PARTICIPANTS LIST

Strata	Organization	Sub-unit	Sub-unit description	No. of invited participants	Names of invited participants	Participant contact information	Contact person (if different from participant)
Strata 1: Water Resources	Ministry of Water Resources	Directorate for Water Infrastructure	Directorate in charge of water resources development	3	1. 2. 3.	Address, Email, Phone, Fax	Name, Address, Email, Phone, Fax
	Ministry of Water Resources	National Groundwater Agency	Agency in charge of groundwater management	1			
	National Fed. of Water User Associations	-	National Fed. of Water User Associations	2	1. 2.		
	National Environmental Protection Agency	Water Protection Department	Dept. for water protection	1			
<i>Total strata 1</i>				7			
Strata 2: Irrigation (and so on)							
<i>Total strata 2</i>							

APPENDIX 4: SAMPLE O&F MATRIX

	Organizing & Building Capacity in the Water Sector	Planning Strategically	Allocating Water	Developing & Managing Water Resources	Regulating Water Resources and Services
Water Department					
Environment Department					
River Basin Authorities					
Ministry of Agriculture					
H. Council for Water & Climate					
Planning Department					
Industry Department					
Dept. for Land Management					
Tourism Department					
Health Department					
Economy Department					
Justice Department					
Legislative bodies					
Nat. Ag. for D. Water & Sanit.					
National Agency for Electricity					
Reg. Agencies for Agr. Dev.					
Water and Forest Department					
Private Sector					
Universities					
NGOs					
Water Users Associations					

APPENDIX 5: WATER GOVERNANCE STANDARD 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

APPENDIX 6: DECISION-MAKING FEATURES QUESTIONNAIRE

Key Challenge 1: Facing Groundwater Depletion⁴

تحدي رئيسي رقم 1:

4	Yes, in all or almost all cases	1	No, in all or almost all cases
3	Generally yes, but not in all cases		NA No Answer/I do not know
2	Only in some cases		
	4- نعم, في أغلب أو جميع الحالات		1- لا, في أغلب أو جميع الحالات
	3- في الغالب نعم, لكن ليس في كل الحالات		NA لا جواب, لا أعرف
	2- فقط في بعض الحالات		

Please consider the decisions that the government has made or is currently discussing to face **groundwater depletion**. Consider *HOW* those decisions were made (**decision-making process**) and rate the statements in the tables below using the 1-4 scale (above). While doing your assessment please take into account, among others, the following decisions:

- Approval of the water law, its amendments and by-laws
- Establishment of the national irrigation program (NIP)
- Creation of the national water resources authority (NWRA)
- Creation of water users associations
- Establishment of the irrigation council
- Establishment of water basin committees in 4 endangered basins

1. How **transparent** is the decision-making process?

⁴ The present questionnaire is tailored for Yemen. Key challenges and related decisions would have to be adjusted for the country considered.

1. ما مدى شفافية أخذ القرار؟

Information on decisions faced is made available to the general public المعلومات عن القرارات متاحة للجمهور العام	
Background data on decisions faced are readily available to interested parties البيانات الأساسية عن القرارات الصادرة متاحة بسهولة للأطراف المهتمة	
Criteria to be used in deciding are clearly stated المعايير المستخدمة في اتخاذ القرار محدد بوضوح	
Decision-making processes are clearly specified قواعد أخذ القرار مفصلة بوضوح	
The Government openly discloses its actions and the result of its governance decision-making تكشف الحكومة علنا عن أفعالها والنتائج من جراء اتخاذها للقرار	

2. How participatory is the decision-making process?

2. ما هي مدى المشاركة في اتخاذ القرار؟

There are opportunities for public input to pending decisions هناك فرص للعموم للمشاركة في القرارات المطروحة	
Decisions are made taking into account the public input تأخذ القرارات بعين الاعتبار آراء و أفكار العموم	
There are opportunities for the input of organized stakeholders into pending decisions هناك فرص متاحة لاعتبار أفكار أصحاب الشأن المنطقيين في القرارات المطروحة	
Decisions are made taking into account the input of organized stakeholders تأخذ القرارات مع مراعاة أفكار أصحاب الشأن المنطقيين	

3. How much integrity and accountability is evident in the decision-making process?

3. ما مدى وضوح المسؤولية والمحاسبة في عملية صنع القرار؟

Decision-makers are held responsible for their decisions يحاسب أصحاب القرار على نتائج اختياراتهم	
Decisions are not driven or influenced by payments or favors لا تعتمد القرارات أو تتأثر بالمدفوعات أو الخدمات	
Decisions are made impartially—irrespective of who is involved يتم اتخاذ القرارات دون تحيز، بغض النظر عن من يشارك	
Decisions are made in conformity with specific rules, laws and procedures يتم اتخاذ القرارات وفقا للقوانين والقواعد والإجراءات المحددة	

Key Challenge 2: Increasing Water Supply Coverage

تحدي رئيسي رقم 2:

4	Yes, in all or almost all cases	1	No, in all or almost all cases
3	Generally yes, but not in all cases		NA No Answer/I do not know
2	Only in some cases		
	4- نعم, في أغلب أو جميع الحالات		1- لا, في أغلب أو جميع الحالات
	3- في الغالب نعم, لكن ليس في كل الحالات		NA لا جواب, لا أعرف
	2- فقط في بعض الحالات		

Please consider the decisions that the government has made or is currently discussing to **increase the current water supply coverage**. Consider **HOW** those decisions were made (**decision-making process**) and rate the statements in the tables below using the 1-4 scale (above). While doing your assessment please take into account, among others, the following decisions:

- Establishment of local water and sanitation corporations
- Development of the National Water Sector Strategy
- Decisions on establishment of water supply coverage targets for urban and for rural areas.

1. How **transparent** is the decision-making process?

1. ما مدى شفافية أخذ القرار؟

Information on decisions faced is made available to the general public المعلومات عن القرارات متاحة للجمهور العام	
Background data on decisions faced are readily available to interested parties البيانات الأساسية عن القرارات الصادرة متاحة بسهولة للأطراف المهمة	
Criteria to be used in deciding are clearly stated المعايير المستخدمة في اتخاذ القرار محدد بوضوح	
Decision-making processes are clearly specified قواعد أخذ القرار مفصلة بوضوح	
The Government openly discloses its actions and the result of its governance decision-making تكشف الحكومة علنا عن أفعالها والنتائج من جراء اتخاذها للقرار	

2. How **participatory** is the decision-making process?

2. ما هي مدى المشاركة في اتخاذ القرار؟

There are opportunities for public input to pending decisions هناك فرص للعموم للمشاركة في القرارات المطروحة	
Decisions are made taking into account the public input تأخذ القرارات بعين الاعتبار آراء و أفكار العموم	
There are opportunities for the input of organized stakeholders into pending decisions هناك فرص متاحة لاعتبار أفكار أصحاب الشأن المنطقيين في القرارات المطروحة	
Decisions are made taking into account the input of organized stakeholders تأخذ القرارات مع مراعاة أفكار أصحاب الشأن المنطقيين	

3. How much **integrity and accountability** is evident in the decision-making process?

3. ما مدى وضوح **المسؤولية والمحاسبة** في عملية صنع القرار؟

Decision-makers are held responsible for their decisions يحاسب أصحاب القرار على نتائج اختياراتهم	
Decisions are not driven or influenced by payments or favors لا تعتمد القرارات أو تتأثر بالمدفوعات أو الخدمات	
Decisions are made impartially—irrespective of who is involved يتم اتخاذ القرارات دون تحيز، بغض النظر عن من يشارك	
Decisions are made in conformity with specific rules, laws and procedures يتم اتخاذ القرارات وفقا للقوانين والقواعد والإجراءات المحددة	

Key Challenge 3: Improving Irrigation Efficiency

تحدي رئيسي رقم 3:

4	Yes, in all or almost all cases	1	No, in all or almost all cases
3	Generally yes, but not in all cases		NA No Answer/I do not know
2	Only in some cases		
	4- نعم, في أغلب أو جميع الحالات		1- لا, في أغلب أو جميع الحالات
	3- في الغالب نعم, لكن ليس في كل الحالات		NA لا جواب, لا أعرف
	2- فقط في بعض الحالات		

Please consider the decisions that the government has made or is currently discussing to **improve irrigation efficiency**. Consider **HOW** those decisions were made (**decision-making process**) and rate the statements in the tables below using the 1-4 scale (above). While doing your assessment please take into account, among others, the following decisions:

- Regulation of subsidies for modernization of irrigation
- Establishment of the national irrigation program (NIP)/irrigation efficiency aspects
- Allocation of a fraction of revenues from fuel sale to the agriculture and fisheries production promotional fund.

1. How **transparent** is the decision-making process?

1. ما مدى شفافية أخذ القرار؟

Information on decisions faced is made available to the general public المعلومات عن القرارات متاحة للجمهور العام	
Background data on decisions faced are readily available to interested parties البيانات الأساسية عن القرارات الصادرة متاحة بسهولة للأطراف المهمة	
Criteria to be used in deciding are clearly stated المعايير المستخدمة في اتخاذ القرار محدد بوضوح	
Decision-making processes are clearly specified قواعد أخذ القرار مفصلة بوضوح	
The Government openly discloses its actions and the result of its governance decision-making تكشف الحكومة علنا عن أفعالها والنتائج من جراء اتخاذها للقرار	

2. How **participatory** is the decision-making process?

2. ما هي مدى المشاركة في اتخاذ القرار؟

There are opportunities for public input to pending decisions هناك فرص للعموم للمشاركة في القرارات المطروحة	
Decisions are made taking into account the public input تأخذ القرارات بعين الاعتبار آراء و أفكار العموم	
There are opportunities for the input of organized stakeholders into pending decisions هناك فرص متاحة لاعتبار أفكار أصحاب الشأن المنطقيين في القرارات المطروحة	
Decisions are made taking into account the input of organized stakeholders تأخذ القرارات مع مراعاة أفكار أصحاب الشأن المنطقيين	

3. How much **integrity and accountability** is evident in the decision-making process?

3. ما مدى وضوح **المسؤولية والمحاسبة** في عملية صنع القرار؟

Decision-makers are held responsible for their decisions يحاسب أصحاب القرار على نتائج اختياراتهم	
Decisions are not driven or influenced by payments or favors لا تعتمد القرارات أو تتأثر بالمدفوعات أو الخدمات	
Decisions are made impartially—irrespective of who is involved يتم اتخاذ القرارات دون تحيز، بغض النظر عن من يشارك	
Decisions are made in conformity with specific rules, laws and procedures يتم اتخاذ القرارات وفقا للقوانين والقواعد والإجراءات المحددة	

APPENDIX 7: FUNCTIONAL EFFECTIVENESS QUESTIONNAIRE

Thinking broadly about the ministries and departments involved in managing water resources in your country, please rate the statements below using the following rating scale.

فكر بصفة عامة في مختلف الوزارات و الإدارات المهمة بشؤون المواد المائية. الرجاء استخدام المقياس المخصص أدناه باستخدام المقاييس المخصصة التالية:

- 4- نعم, في أغلب أو جميع الحالات
 3- في الغالب نعم, لكن ليس في كل الحالات
 2- فقط في بعض الحالات
 1- لا, في أغلب أو جميع الحالات
 NA لا جواب, لا أعرف
- 4 Yes, in all or almost all cases
 3 Generally yes, but not in all cases
 2 Only in some cases
 1 No, in all or almost all cases
 NA No answer/I do not know

Statement	Explanation of functional effectiveness شرح الفعالية الوظيفية	Rating (Agriculture)	Rating (Water Supply)
1. Roles and responsibilities of each department or agency are clearly defined, المهام و المسؤوليات لكل إدارة او مؤسسة مبينة بوضوح.	Each agency/department knows what its responsibilities are and what the other agencies/departments are responsible for; there are no 'grey' areas or ambiguities on who is responsible for what كل مؤسسة/ إدارة ما تعرف مسؤولياتها وما هي مسؤولية غيرها من المؤسسة/الإدارات: ولا توجد هناك مناطق 'رمادية' أو غامضة حول من هو المسؤول عنه		
2. Policy goals for the water sector are clearly define أهداف السياسة المائية محددة و مبينة بوضوح	The national government has made explicit its policy goals for the water sector (e.g through the definition of priorities and subsequent strategies to address them) حكومة حددت أهداف سياستها لقطاع المياه بوضوح (على سبيل المثال من خلال تحديد الأولويات والاستراتيجيات لمعالجتها)		
3. National governmental agencies consult each other when taking decisions that impact multiple sectors تتشاور المؤسسات الحكومية في ما بينها عند اتخاذ القرارات التي لها انعكاسات على مختلف القطاعات الاقتصادية	Decisions taken by the different national governmental agencies do not contradict each other القرارات التي اتخذتها مختلف المؤسسات الحكومية لا تتعارض مع بعضها البعض		

<p>4. National governmental agencies cooperate in implementing their policies where appropriate تتعاون المؤسسات الحكومية في تنفيذ سياساتها عند الحاجة</p>	<p>The implementation of policies has the support of all the relevant national governmental agencies تنفيذ السياسات تحظى بتأييد جميع المؤسسات الحكومية ذات الصلة</p>		
<p>5. Regional governmental agencies are consulted when decisions that affect their region are taken تستشار المؤسسات الحكومية المحلية عند اخذ قرارات تهم المنطقة</p>	<p>Decisions taken by the national government have the support of regional governmental agencies القرارات التي اتخذتها الحكومة تحظى بدعم من المؤسسات الحكومية المحلية</p>		
<p>6. There are established agreements with neighboring countries sharing water resources هناك اتفاقات مع الدول المجاورة حول تقاسم الموارد المائية</p>	<p>This question refers to both surface and underground transboundary water resources هذا السؤال يشير الى كل من الموارد المائية السطحية والجوفية العابرة للحدود</p>		
<p>7. There is public and political awareness of water sector issues هناك توعيه سياسية وعامة للقضايا قطاع المياه</p>	<p>Policy makers and the wider public are aware of the main water problems and of the different possible measures to face them صناعي السياسات والجمهور الأوسع على بينة من مشاكل المياه الرئيسية والتدابير المختلفة الممكنة لمواجهتها</p>		
<p>8. The water sector is provided with sufficient funds to function properly, قطاع المياه مدعوم بالموارد المادية الكافية ليؤدي وظيفته كما ينبغي .</p>	<p>Financing is not the most important constraint on governmental agencies in performing their assigned water management tasks التمويل ليس هو العائق الأهم في الأجهزة الحكومية في أداء هذه المهام المسندة لإدارة المياه</p>		
<p>9. Governmental agencies have an adequate number of capable staff to perform their assigned water management tasks المؤسسات الحكومية لديها موارد بشرية ملائمة وبالعدد الكافي للانجاز مهامها المحددة لإدارة المياه.</p>			
<p>10. Water resources data are collected regularly, continuously throughout the country تجمع بيانات الموارد المائية بصفة متواصلة و منتظمة من كل أرجاء الوطن</p>			
<p>11. Governmental agencies produce projections of future water supply and demand المؤسسات الحكومية لديها تصورات للعرض و الطلب المستقبلي على المياه</p>			
<p>12. Governmental agencies have clear and effective strategies for matching expected long-term water supply and demand المؤسسات الحكومية لديها استراتيجيات فعالة لمواجهة العرض و الطلب المتوقع على المدى الطويل</p>			

<p>13. Governmental agencies have clear and effective strategies for dealing with water supply shortfalls (e.g. droughts) المؤسسات الحكومية لديها استراتيجيات واضحة وفعالة للتعامل مع النقص في إمدادات المياه (الجفاف مثلا)</p>			
<p>14. Planning and management tools are available to support decision-making processes أدوات التخطيط والإدارة متاحة لدعم عمليات صنع القرار</p>			
<p>15. Well-established rules are followed in assigning water to users on a long-term basis. يتم اتباع قواعد راسخة لتحديد استخدام المياه على المدى الطويل الأجل</p>			
<p>16. Water users regularly exchange long-term water rights following well-established rules يتبادل مستخدمي المياه بانتظام حقوق المياه على المدى الطويل بإتباع قواعد راسخة</p>			
<p>17. Disputes among water users are resolved effectively تحل النزاعات بين مستخدمي المياه بطريقة فعالة</p>	<p>Disputes are settled in an acceptable period of time and in a way that, in general, is considered to be fair. تتم تسوية المنازعات التي تنشأ في فترة زمنية مقبولة، وبطريقة، بصفة عامة، تعتبر عادلة</p>		
<p>18. Water rights transactions do not negatively affect third parties نقل حقوق المياه لا يؤثر سلبا على طرف ثالث.</p>	<p>This means that the competent authorities assess whether transactions of water among users can cause negative impacts to third party and, if necessary, take actions to prevent or mitigate them هذا يعني أن السلطات المختصة تقييم ما إذا كانت نقل المياه بين المستخدمين يمكن أن يسبب تأثيرات سلبية على طرف ثالث، وإذا لزم الأمر، تتخذ الإجراءات اللازمة لمنع أو التخفيف منها</p>		
<p>19. Private water infrastructure is developed according to well-established rules يتم تطوير البنية التحتية الخاصة بالمياه وفقا لقواعد راسخة</p>	<p>'Private water infrastructure' includes private wells, dams, delivery channels, irrigation systems, etc. 'البنية التحتية الخاصة بالمياه' بما فيها الآبار الخاصة والسدود وقنوات التوزيع، وأنظمة الري، وغيرها</p>		
<p>20. Government agencies produce seasonal forecasts of water supply and demand and take actions to match the two المؤسسات الحكومية تنتج التنبؤات الموسمية لإمدادات المياه والطلب واتخاذ إجراءات لمطابقة الاثنين</p>	<p>This question refers to the planning of water distribution when water supply needs to be adjusted to the actual availability of water resources to satisfy the existing needs in a given season. هذا السؤال يشير إلى التخطيط لتوزيع المياه عندما تكون إمدادات المياه بحاجة إلى تعديل لتوافر الموارد المائية الفعلية لتلبية الاحتياجات القائمة في موسم واحد معين</p>		

21. Government agencies operate public water infrastructure effectively, according to established plans and strategic priorities المؤسسات الحكومية تشغل البنية التحتية للمياه بفعالية طبقا لخطط وأولويات إستراتيجية			
22. Government agencies effectively maintain public water infrastructure المؤسسات الحكومية تصون البنية التحتية للمياه بكفاءة	This implies that public water infrastructure are in good condition وهذا يعني أن البنية التحتية العامة للمياه في حالة جيدة		
23. Current incentives and sanctions (water pricing, fines, subsidies) are effective at managing water demand الحوافز الحالية و العقوبات (تعرفة المياه، الغرامات، والإعانات) فعالة في ادارة الطلب على المياه	This means that water-consuming practices are influenced by current incentives and sanctions that foster water-efficiency (fines, subsidies, water prices) وهذا يعني أن الممارسات الاستهلاكية للمياه تتأثر بالحوافز والعقوبات الحالية التي تعزز كفاءة المياه (الغرامات، والإعانات، تعرفه المياه)		
24. Floods and flood impacts are forecast in advance and managed effectively يتم التنبؤ بالفيضانات وآثارها مقدما وإدارتها على نحو فعال	This means that flooding is predicted in advance and that measures are taken to protect the public from harm. وهذا يعني أنه يتم التنبؤ بالفيضانات في وقت مبكر واتخاذ التدابير اللازمة لحماية الجمهور من الأذى.		
25. Water services are provided to users by external agencies operating under concessions granted by the government using regular well-established procedures. يتم توفير خدمات المياه إلى المستخدمين من قبل المؤسسات الخارجية العاملة بموجب الامتيازات الممنوحة لها من قبل الحكومة و باستخدام إجراءات نظامية راسخة	This means that irrigation and domestic water supply services are provided by an agency that is separate from the public authority which regulates them and that such operating concessions are awarded in a fair and open way. وهذا يعني أن يتم توفير الري والخدمات المنزلية لإمدادات المياه من قبل مؤسسة منفصلة عن السلطة العامة التي تنظمهم ومثل هذه الامتيازات تمنح بطريقة عادلة ومفتوحة		
26. Government agencies are effective at enforcing the established water withdrawal limits المؤسسات الحكومية فعالة في مراقبة حدود كميات المياه المسحوبة.	There is little or no infringement of the established withdrawal limits imposed on water rights holders هناك قدر ضئيلة أو لا توجد انتهاكات لحدود كميات المياه المسحوبة يفرض من قبل مالكي حقوق المياه		
27. Established water quality standards for water basin, water bodies and aquifers are met يتم استيفاء المعايير المحددة لنوعية المياه للأحواض المائية والمسطحات المائية والمياه الجوفية			
28. Aquatic ecosystems are protected to the level specified by established standards. المنظومات المائية محمية وفقا للمعايير المنصوص عليها من الحكومة			

<p>29. Established water service standards are met . المعايير الموضوعه لخدمات المياه متناغمة</p>	<p>There are established quality standards for water irrigation and domestic water supply services and compliance with these standards is monitored and enforced. هناك تشريع لمعايير جودة مياه الري والخدمات المنزلية للمياه الشرب وتتفق مع هذه المعايير ويتم مراقبتها وتنفيذها</p>		
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APPENDIX 8: SAMPLE OF WORKSHOP AND RATING SESSION REPORT

Yemen Water Governance Workshop and Rating Session Summary of Results

A two-day workshop to assess national water governance capacity and performance was held on 3-4 October 2010 in Sana'a as part of the USAID-funded Regional Water Governance Benchmarking (ReWaB) project⁵. Seventeen people participated in the sessions and provided responses to the exercises throughout the workshop. Two international ReWaB project members, Lucia De Stefano (International Resources Group) and Jacques Rey (Stockholm International Water Institute) and one local consultant, Eng. Said Rawah Al-Shaybani, were present.

1) Overall Approach

Participants from 13 water-related organizations attended the workshop (list of participants in Annex 1).

The distribution of participants, according to the five ReWaB sub-sector strata, is shown below (Day 2).

Strata	Number of Participants
Water resources	3
Irrigation	6
Other water using sectors	3
National policy makers	1
Advisors	4

The workshop and rating session followed the agenda provided below.

Day 1: 3 October 2010

9:00 - 9:30 Registration
9:30 - 9:50 Official opening
9:50 - 10:30 Introduction to the project and explanation of basic concepts
10:30 - 10:50 Coffee break
10:50 - 11:30 Discussion on key water challenges in Yemen
11:30 - 12:40 Organization & Function Matrix

⁵ www.rewab.net

12:40 - 13:45 Feedback and discussion
 13:45 Lunch

Day 2: 4 October 2010

9:00 - 9:10 Participant sign-in and delivery of working material
 9:10 - 9:30 Introduction to the Rating Session
 9:30 - 10:30 Decision-Making Features Assessment
 10:30 - 10:50 Coffee break
 10:50 - 11:50 Functional Effectiveness Assessment
 11:50 - 12:30 Discussion in groups on water governance in Yemen
 12:30 - 13:45 Reporting and discussion
 13:45 Lunch

The workshop and rating session consisted of six parts: (1) an introduction to the project and the concepts of water governance and explanation of project components, (2) identification of significant governance decisions made, or under discussion, to face key water challenges in Yemen, (3) completion of an exercise that describes the extent to which organizations influence core water resources functions, (4) rating of key features of water governance decision-making, (5) rating of the effectiveness with which key water resource governance functions are carried out, and (6) discussion on the strengths and weakness of water governance in Yemen.

2) Workshop Results

The following text and tables show the results of exercises from the workshop and rating session.

Organizations and Functions Matrix

The organizations and functions matrix examines the extent to which major organizations in Yemen influence water resources standard functions. The major functions are organizing and building capacity in the water sector (*Organizing*), planning strategically (*Planning*), allocating water (*Allocating*), developing and managing water resources (*Developing and Managing*), and regulating water resources and services (*Regulating*). In each of these five functions, participants assigned a score assessing the degree to which an organization influences decisions on a particular function. The scale ranged from 1 through 5, with 1 being the lowest level of influence and 5 being the highest. Participants worked in four groups in completing this exercise. Shown below are the averages for all 4 groups.

	Organizing	Planning	Allocating	Developing	Regulating	Average
Ministry of Agriculture and Irrigation	2.8	2.8	2.0	2.8	2.5	2.6
Ministry of Water and Environment	3.8	3.0	2.5	2.8	2.5	2.9
National Water Resources Authority	2.8	2.8	3.0	2.8	2.8	2.8
Ministry of Planning and International Cooperation	1.8	2.8	1.7	1.8	1.8	1.9
Ministry of Justice	1.5	2.0	1.3	1.0	2.0	1.6

Yemeni Parliament	2.0	3.0	1.3	1.7	2.5	2.1
Agricultural cooperation Union	1.7	2.0	1.0	1.3	1.3	1.4
Irrigation Council and Water Users Associations	1.8	2.5	1.5	2.0	1.8	1.9
National Water and Sanitation Authority	2.3	2.3	2.5	2.8	2.3	2.4
General Authority for Rural Water Supply	2.5	2.5	2.3	2.3	2.3	2.4
Private Sector	2.7	4.0	1.7	2.3	1.7	2.5
Donors	4.0	3.8	1.3	2.5	3.3	3.0
Sana'a University	2.3	1.7	1.0	1.0	1.0	1.4
Public Work Project	2.8	2.3	1.3	2.0	1.3	1.9
Agriculture and Research Extension Authority	2.8	2.0	1.3	1.3	1.3	1.7
Arab Countries Water Utility Association	2.5	2.0	1.0	1.0	1.0	1.5
Universities	3.0	2.0	1.0	1.0	1.0	1.6
NGOs	1.5	1.5	2.0	1.3	1.3	1.5
Ministry of legal affairs	1.0	1.0	1.5	1.0	1.7	1.2
Ministry of local administration	1.7	1.5	2.3	1.3	2.0	1.8
Social Fund	3.0	2.0	1.3	1.8	1.5	1.9
Ministry of Interior	1.0	1.0	1.0	1.0	1.0	1.0
Ministry of finance	2.0	1.5	1.0	1.0	1.0	1.3
Average	2.3	2.3	1.6	1.7	1.8	1.9

Preliminary analysis of the results led to the following observations.

- *Organizing and Planning* had the highest average involvement of any of the functions.
- *Developing and Managing, Allocating, and Regulating* have lower collective organizational influence.
- Seven organizations/groups have an influence across all functions, with donors, the Ministry of Water and Environment, and the Ministry of Agriculture and Irrigation having the strongest influence on decisions.

Organization or Group	Influence Score
Donors	3.0
Ministry of Water & Environment	2.9
National Water Resources Authority	2.8
Ministry of Agriculture and Irrigation	2.6
Private Sector	2.5
National Water and Sanitation Authority	2.4
General Authority for Rural Water Supply	2.4

Water Governance Decision-making Challenges

The first rating exercise assessed selected features of decision-making in Yemen in the context of three key water sector challenges: (1) groundwater depletion, (2) increasing water supply coverage, and (3) increasing irrigation efficiency (see Annex 2). These issues were selected in advance, in consultation with local partners, to give focus to the questions being asked about decision-making features.

The decision-making features assessed were the following.

- Participation
- Transparency
- Integrity and Accountability

A set of 4 to 6 questions were used to elicit a characterization of each feature for a particular challenge. Shown below are the aggregate scores for each feature in each challenge. Also shown are the averages by challenge and by feature. The scale ranged from 1 to 4, with 1 being the lowest level of the feature and 4 being the highest level. Participants completed this exercise individually after discussion in groups.

	Transparency	Participation	Integrity	Average
Challenge 1: Groundwater	2.1	2.1	2.1	2.1
Challenge 2: Water Supply	2.5	2.1	2.1	2.2
Challenge 3: Irrigation Efficiency	2.2	2.1	2.1	2.1
Average	2.2	2.1	2.1	

Functional Effectiveness

Functional effectiveness questions were used to assess how effectively key water resources functions were carried out in practice (see Annex 3). Participants were asked to assign a score for both water used in the agricultural sector and for drinking water supply. A four-point scale (1 through 4) was used, where 4 indicates high effectiveness and 1 indicates low effectiveness. Participants completed this exercise individually after discussion in groups. Cell shading shows relative magnitude of rating values.

Statement	Explanation of functional effectiveness	Rating (Agriculture)	Rating (Water Supply)

1. Roles and responsibilities of each department or agency are clearly defined	Each agency/department knows what its responsibilities are and what the other agencies/departments are responsible for; there are no 'grey' areas or ambiguities on who is responsible for what	2.5	2.8
2. Policy goals for the water sector are clearly define	The national government has made explicit its policy goals for the water sector (e.g. through the definition of priorities and subsequent strategies to address them)	2.8	2.9
3. National governmental agencies consult each other when taking decisions that impact multiple sectors	Decisions taken by the different national governmental agencies do not contradict each other.	2.1	2.2
4. National governmental agencies cooperate in implementing their policies where appropriate	The implementation of policies has the support of all the relevant national governmental agencies	2.2	2.4
5. Regional governmental agencies are consulted when decisions that affect their region are taken	Decisions taken by the national government have the support of regional governmental agencies	2.6	2.9
6. There are established agreements with neighboring countries sharing water resources	This question refers to both surface and underground transboundary waters	1.1	1.2
7. There is public and political awareness of water sector issues	Policy makers and the wider public are aware of the main water problems and of the different possible measures to face them	2.2	2.4
8. The water sector is provided with sufficient funds to function properly	Financing is not the most important constraint on governmental agencies in performing their assigned water management tasks	2.4	2.4
9. Governmental agencies have an adequate number of capable staff to perform their assigned water management tasks		2.8	2.8

10. Water resources data are collected regularly, continuously throughout the country		2.3	2.3
11. Governmental agencies produce projections of future water supply and demand		2.4	2.6
12. Governmental agencies have clear and effective strategies for matching expected long-term water supply and demand		1.8	1.8
13. Governmental agencies have clear and effective strategies for dealing with water supply shortfalls (e.g. droughts)		1.6	1.6
14. Planning and management tools are available to support decision-making processes		2.0	1.9
15. Well-established rules are followed in assigning water to users on a long-term basis.		1.6	1.6
16. Water users regularly exchange long-term water rights following well-established rules		1.6	1.6
17. Disputes among water users are resolved effectively	Disputes are settled in an acceptable period of time and in a way that, in general, is considered to be fair.	1.8	1.5
18. Water rights transactions do not negatively affect third parties	This means that the competent authorities assess whether transactions of water among users can cause negative impacts to third party and, if necessary, take actions to prevent or mitigate them	1.3	1.4

19. Private water infrastructure is developed according to well-established rules	'Private water infrastructure' includes private wells, dams, delivery channels, irrigation systems, etc.	1.9	1.9
20. Government agencies produce seasonal forecasts of water supply and demand and take actions to match the two	This question refers to the planning of water distribution when water supply needs to be adjusted to the actual availability of water resources to satisfy the existing needs in a given season.	1.6	1.6
21. Government agencies operate public water infrastructure effectively, according to established plans and strategic priorities		1.8	2.1
22. Government agencies effectively maintain public water infrastructure	This implies that public water infrastructure are in good condition	1.7	2.2
23. Current incentives and sanctions (water pricing, fines, subsidies) are effective at managing water demand	This means that water-consuming practices are influenced by current incentives and sanctions that foster water-efficiency (fines, subsidies, water prices)	1.8	2.5
24. Floods and flood impacts are forecast in advance and managed effectively	This means that flooding is predicted in advance and that measures are taken to protect the public from harm.	1.3	1.3
25. Water services are provided to users by external agencies operating under concessions granted by the government using regular well-established procedures.	This means that irrigation and domestic water supply services are provided by an agency that is separate from the public authority which regulates them and that such operating concessions are awarded in a fair and open way	1.7	1.7
26. Government agencies are effective at enforcing the established water withdrawal limits	There is little or no infringement of the established withdrawal limits imposed on water rights holders	1.3	1.4

27. Established water quality standards for water basin, water bodies and aquifers are met		1.7	1.9
28. Aquatic ecosystems are protected to the level specified by established standards		2.0	2.1
29. Established water service standards are met	There are established quality standards for water irrigation and domestic water supply services and compliance with these standards is monitored and enforced.	1.8	2.0

These values are rolled up into scores for the 5 standard water governance functions in the table below.

Functional Effectiveness Ratings for Yemen			
	Irrigation	Domestic	Combined
F1: Organizing and Building Capacity	2.2	2.4	2.3
F2: Planning Strategically	2.0	2.0	2.0
F3: Allocating Water	1.7	1.7	1.7
F4: Developing and Managing Water Resources	1.6	2.0	1.8
F5: Regulating Water Resources and Services	1.8	1.8	1.8
Note: Results have been adjusted to give equal weights to the 5 participant strata			

As seen in the table, overall

Organizing and *Planning* are the strongest functions in the sector, and *Allocating* the weakest. Ratings differ somewhat between irrigation and domestic water supply, with water supply scoring higher in terms of both *Organizing* and *Developing and Managing*.

3) Discussion Outcomes

After completing the rating exercises, participants discussed water governance in Yemen, identifying strengths and weaknesses, and produced recommendations of ways to improve water governance.

Strong points

- Good laws, regulations and strategies
- Existence of basin committees and water user associations (incipient stakeholder participation)
- Existence of local water corporations; with performance indicators
- Issuing of a manual for local government services
- Issuing of a statistical yearly book
- Existence of web sites for most agencies

Weak points

- Lack of implementation of laws and strategies
- Implementation timeframe for strategies is not specified
- Absence of the concept of monitoring and evaluation

- Not enough information available about water resources (inaccurate, out-of-date and rarely transmitted to who need the information)
- Poor enforcement of laws
- Contradictions between the constitution and the civil law regarding water rights
- Differences in the interpretation of laws
- Over-centralization
- Responsibilities are not well identified
- Duplication of responsibilities and mandates among agencies
- Contradiction between the ministry of agriculture and the ministry of water & environment mandates (e.g. deciding power on dams building not clear)
- Weak capacity of local administration
- Little transparency in the criteria for appointing governmental staff
- Lack of transparency
- Poor accountability
- Poor integrity within agencies
- Participation is weak

4) Recommendations

- Enhance enforcement agencies
- Improve capacity at central and local levels (e.g. water users associations)
- Address the issue of non-compliance with laws
- Spur a stronger political will to implement the laws from the top (e.g. donors set conditions on laws compliance before providing funds) and from the bottom (press and public opinion pushing for a change)
- Access sufficient and effective financial support
- Facilitate access to information for all stakeholders
- Strengthen information systems in all agencies
- Communicate on water issues through various available media (press, internet, TV, radio)
- Increase transparency in selecting staff in particular for governance positions
- Strengthen monitoring and evaluation
- Increase participation and transparency, particularly at the planning stage of specific projects (involving affected people since the beginning)
- Raise awareness of existing rules and the adequate level of participation for all stakeholders (manage expectations of stakeholders)
- Raise awareness on water issues among decision makers (e.g. members of parliament)
- Make data available to increase transparency and facilitate participation
- Develop a monitoring and evaluation system for investments in the water sector (what/when/who; time bounded targets)

In addition, participants made the following recommendations related to methodology and process.

- Yemen has to be fully integrated in the USAID project
- Benchmarking is key (but local context has to be taken into account)
- Results of the workshop should be communicated to the government/national authorities
- Organize a widely attended follow-up workshop where stake-holders and policy-makers are invited and where the results and recommendations of the project are discussed

- Need to include high-level participants and low-level stakeholders (e.g. farmers, people from local areas) even in the first workshop
- Invite at least 50 people, the sample of the workshop was too small
- Include views of marginalized stakeholders (women, minority ethnic groups, disable people)

5) Next Steps

This brief two-day session involving around 20 people has provided an interesting snapshot of water governance in Yemen. It suggests who the major players are and how much influence each has, how openly water governance decisions are made, and how effective the water governance process is. It does not provide a detailed diagnosis of the causes of strengths and weaknesses in water governance, nor does it include an assessment of sector performance in delivering water-related services to users. The latter also involves assessing water management performance within the higher-level water governance context.

The process stimulated lively discussion among participants and seemed to engage most of them fairly intensively. The participants' own suggestions for further steps seem right on target. These include (1) organizing a larger assessment workshop of at least 50 people and include a wider range of perspectives, (2) organize a follow-on workshop to analyze and interpret the results of the assessment, and (3) communicate the results of this and any follow-on workshops to national authorities.

In addition, an assessment of water management performance, as distinguished from the higher-level water governance process assessed here, could be organized to add links to the performance chain, reaching from policies to on-the-ground results.

Annex 1 - List of Participants

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Annex 2

Key Challenge 1: Facing Groundwater Depletion

Please consider the decisions that the government has made or is currently discussing to face **groundwater depletion**. Consider *HOW* those decisions were made (**decision-making process**) and rate the statements in the tables below using the 1-4 scale (above). While doing your assessment please take into account, among others, the following decisions:

- Approval of the water law, its amendments and by-laws
- Establishment of the national irrigation program (NIP)
- Creation of the national water resources authority (NWRA)
- Creation of water users associations
- Establishment of the irrigation council
- Establishment of water basin committees in 4 endangered basins

Key Challenge 2: Increasing Water Supply Coverage

Please consider the decisions that the government has made or is currently discussing to **increase the current water supply coverage**. Consider *HOW* those decisions were made (**decision-making process**) and rate the statements in the tables below using the 1-4 scale (above). While doing your assessment please take into account, among others, the following decisions:

- Establishment of local water and sanitation corporations
- Development of the National Water Sector Strategy
- Decisions on establishment of water supply coverage targets for urban and for rural areas.

Key Challenge 3: Increasing Water Supply Coverage

Please consider the decisions that the government has made or is currently discussing to **improve irrigation efficiency**. Consider *HOW* those decisions were made (**decision-making process**) and rate the statements in the tables below using the 1-4 scale (above). While doing your assessment please take into account, among others, the following decisions:

- Regulation of subsidies for modernization of irrigation
- Establishment of the national irrigation program (NIP)/irrigation efficiency aspects
- Allocation of a fraction of revenues from fuel sale to the agriculture and fisheries production promotional fund

Annex 3

Functional Effectiveness Assessment

Thinking broadly about the ministries and departments involved in managing water resources in your country, please rate the statements below using the following rating scale.

4 Yes, in all or almost all cases

3 Generally yes, but not in all cases

2 Only in some cases

1 No, in all or almost all cases

NA No answer/I do not know

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