

TABLE OF CONTENTS

	Page
1. Study Activities	
1.1 Phase I: Formulation of Rural Water Supply Improvement Plan for Screened Sites and Capacity Assessment of GARWSP	
1.1.1 First Fiscal Year Activities	1-1
1.1.2 Second Fiscal Year Activities	1-11
1.2 Phase II: Assistance for Formulation of Action Plan on Capacity Development	
1.2.1 Second Fiscal Year Activities	1-21
1.2.2 Third Fiscal Year Activities	1-22
2. Socio-Economic Survey	
2.1 Objective and Scope of Socio-Economic Survey	
2.1.1 Objective of the Survey	2-1
2.1.2 Scope of the Survey	2-1
2.2 Survey Methodologies	
2.2.1 Fieldwork Organization	2-1
2.2.2 Fieldwork Schedule	2-2
2.2.3 Methodologies and Tools Applied for Data Collection	2-4
2.2.4 Sample Size and Sampling Methodology for Household Survey	2-5
2.3 Results of Household Survey	
2.3.1 Characteristics of Respondents	2-5
2.3.2 Characteristics of Sample Households	2-7
2.3.3 Education Attainment of Household Members	2-9
2.3.4 Household Income and Expenditure	2-11
2.3.5 Water Use Patterns	2-14
2.3.6 Health and Sanitation Conditions	2-18
2.3.7 Valuation for Improved Water Supply	2-19
2.3.8 Awareness on Management of Water Supply	2-23
2.4 Socio-Economic Situation of Screened Sites	2-26
3. Groundwater Survey	
3.1 Pumping Test	
3.1.1 Execution of Pumping Test	3-1
3.1.2 Procedure	3-2
3.1.3 Results	3-2
3.2 Water Quality Analysis	
3.2.1 Sampling	3-4
3.2.2 Analysis	3-4
3.2.3 Adopted Water Quality Standards	3-6
3.2.4 Results	3-6
3.3 Groundwater Potential and Water Balance Analysis	
3.3.1 Evaluation of Pumping Test Results	3-10
3.3.2 Water Balance Analysis	3-13
3.3.3 Water Balance Prediction and Evaluation of Water Source	3-17
3.3.4 Evaluation on Potential of Water Sources	3-19
3.3.5 Considerations on Results of Evaluation	3-20
3.4 Overall Evaluation of Candidate Water Sources	3-21

4.	Screening and Ranking of Study Sites	
4.1	General Flow for Site Screening and Ranking	4-1
4.2	Screening of Sites for Formulation of Rural Water Supply Improvement Plan	4-2
4.3	Ranking of Screened Sites	4-5
4.4	Treatment of Screened Out Sites	4-8
5.	Survey for Water Supply Facilities Planning	
5.1	Topographic Surveying	5-1
5.2	Confirmation of Construction Land and Accessibility	5-2
5.3	Procurement of Materials and Equipment for Construction	5-2
6.	IEE Assistance	
6.1	Method	6-1
6.2	Description of Assistance	
6.2.1	Interviews with Deputy Minister for Environment of MWE	6-2
6.2.2	Assistance to Preparation of Documents on Project Discussion Papers and Screening	6-2
6.2.3	Assistance to Execution of IEE	6-5
6.3	Results of IEE	6-6
6.4	Evaluation on IEE	6-9
6.5	Stakeholder Meeting	6-9
7.	Workshop/Seminars	
7.1	Participatory Workshop for Capacity Identification	7-1
7.2	First Seminar: Presentation of Interim Results	7-2
7.3	Second Seminar: Presentation of Draft Final Results	7-4
8.	Equipment used for Capacity Development	
8.1	List of Equipment Provided to GARWSP	8-1
8.2	Certificates of Equipment Hand-Over	8-2
9.	Concerned Persons	9-1
10.	Minutes of Meetings	
10.1	Scope of Work	10-1
10.2	Minutes of Meetings on Scope of Work	10-9
10.3	Minutes of Meetings on Inception Report	10-17
10.4	Note of Agreement	10-24
10.5	Note of Agreement 2	10-27
10.6	Addition to Note of Agreement 2	10-32
10.7	Minutes of Meetings on Interim Report	10-35
10.8	Technical Note on Progress Report	10-41
10.9	Minutes of Meetings on Draft Final Report	10-43
11.	Collected References	11-1

12. Study Site Inventory	
12.1 Demographic Inventory	12-1
12.2 Inventory of Water Sources	12-48
12.3 Village Profile of Sites in Al Mawheet Governorate	12-117
12.4 Village Profile of Sites in Sana'a Governorate	12-127
12.5 Village Profile of Sites in Dahmar Governorate	12-158
12.6 Village Profile of Sites in Ibb Governorate	12-174
12.7 Village Profile of Sites in Taiz Governorate	12-182
13. Manuals/Guidelines used for Capacity Development	
13.1 Manual for Surveying Compass	13-1
13.2 Working Draft of Guideline for Supervision of Rural Water Supply Projects to GARWSP Engineers	13-11
13.3 Technical Operation and Maintenance Manual for Constructed Rural Water Supply Facilities in Jabal Al Taraf	13-33
13.4 Technical Operation and Maintenance Manual for Constructed Rural Water Supply Facilities in Al Kharaba	13-41
13.5 Technical Operation and Maintenance Manual for Constructed Rural Water Supply Facilities in Masneat Abdul Aziz	13-47
13.6 Guidelines for Community Mobilization to Establish Water Users Associations ..	13-53
13.7 Manual for Health Education	13-77
14. Reports Submitted by Sub-Contractors	
14.1 Report on Workshop for Capacity Assessment	14-1
14.2 Pumping Test Report for Lots 1 and 3	14-21
14.3 Pumping Test Report for Lots 2 and 4	14-224
14.4 Completion Report on Pilot Project Construction Works	14-387
15. Minutes of Handing Over for Pilot Project Water Supply Schemes	
15.1 Water User Association of Jabal Al Taraf	15-1
15.2 Water User Association of Al Kharaba	15-3
15.3 Water User Association of Masneat Abdul Aziz	15-5
16. Collected Data	
16.1 Existing Drilling Data	16-1
16.2 Meteorological Data	16-38
16.3 Hydrological Data	16-76
17. Press Release	
17.1 Thawrah 14 February 2007	17-1
17.2 Thawrah 19 February 2007	17-3
17.3 News Yemen 13 February 2007	17-4
17.4 Thawrah 24 July 2007	17-6
17.5 Thawrah 2 October 2007	17-7
17.6 News Yemen 7 October 2007	17-9
17.7 Yemen Times 11 October 2007	17-11