



FURTHER ADVANCING THE BLUE REVOLUTION INITIATIVE (FABRI)

QUARTERLY PROGRESS REPORT NO. 9: SEPTEMBER 15, 2013 – DECEMBER 14, 2013

10 JANUARY 2014

This report was produced for review by the United States Agency for International Development. It was prepared by DAI/Washington.

COLLABORATING ENTITIES

Prime Contractor

DAI

Current Subcontractors

California Institute of Technology (Caltech)
ECO Consult (Jordan)
Environmental Law Institute (ELI)
Malcolm Farley Associates (UK)
Texas A&M University
Training Resources Group, Inc.
University of California at Davis
University of Florida
University of Nebraska
Utah State University
Valu Add Management Services

Resource Organizations

Cardno EMG
CDR Associates
Environment and Development Group (Egypt)
Environmental Quality International (Egypt)
Hydro-Yemen (Yemen)
Orient Engineering (Jordan)
Riverside Technology, inc. (RTi)
SETS - Water and Environment (Lebanon)

FURTHER ADVANCING THE BLUE REVOLUTION INITIATIVE (FABRI)

**QUARTERLY PROGRESS REPORT NO. 9:
SEPTEMBER 15, 2013 – DECEMBER 14, 2013**

DISCLAIMER

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

CONTENTS

ACRONYMS	II
EXECUTIVE SUMMARY	V
1. INTRODUCTION	1
2. PROGRESS DURING THE QUARTER.....	3
<i>Result 1: Middle East and North Africa Network of Centers of Excellence Established and Operating</i>	<i>4</i>
<i>Result 2: Integrated Water Resources Management Programming Strengthened</i>	<i>10</i>
<i>Result 3: Access to Clean Water and Sanitation Improved in Target Countries.....</i>	<i>11</i>
<i>Result 4: Research and Development Capacities in Irrigation, Groundwater Management, and Drought Risk Assessment and Mitigation Strengthened.....</i>	<i>12</i>
<i>Result 5: Transboundary Water Cooperation Strengthened in Key River Basins</i>	<i>13</i>
<i>Result 6: Technical and Outreach Capacity of USAID Staff in Water and Sanitation Programming Enhanced.....</i>	<i>15</i>
3. PROJECT MANAGEMENT.....	17
4. ISSUES AND PROPOSED REMEDIES.....	19
5. STANDARDS AND DELIVERABLES SUBMITTED.....	21
ANNEXES	
1 PROJECT DELIVERABLES SUBMITTED TO THE DEVELOPMENT EXPERIENCE CLEARINGHOUSE (DEC).....	22
2 PERFORMANCE INDICATORS.....	23

ACRONYMS

ACWUA	Arab Countries Water Utilities Association
AFR	Africa
AfWA	African Water Association
AfYWP	Africa Young Water Professionals
AGU	Arabian Gulf University
AMCDRR6	Asia Ministerial Conference on Disaster Risk Reduction
AMCOW	African Ministers' Council on Water
APS	Annual Program Statement
ASA-CSSA-SSSA	American Society of Agronomy – Crop Science Society of America – Soil Science Society of America
BPA	Blanket Purchase Agreement
CO	Contracting Officer
COP	Chief of Party
COR	Contracting Officer's Representative
DAI	Development Alternatives, Inc.
DEC	Development Experience Clearinghouse
ELI	Environmental Law Institute
EPA	Environmental Protection Agency
FABRI	Further Advancing the Blue Revolution Initiative
FPPO	Fixed Price Purchase Order
GIS	Geographical Information System
GMS	Greater Mekong Sub-region
GUWL	Ghana Urban Water Limited
GWOP	Global Water Operators Partnerships Alliance
GYGA-MENA	Global Yield Gap Atlas for the Middle East and North Africa
IAV	Institute of Agronomy and Veterinary Science Hassan II
ICA	Independent Consultant Agreement
ICARDA	International Centers for Agricultural Research in Dry Areas
ICBA	International Center for Biosaline Agriculture
INRGREF	National Institute for Research in Rural Engineering, Water, and Forestry
IRESA	Institution of Agricultural Research and Higher Education
IRS	Internal Revenue Service
IWA	International Water Association
IWMI	International Water Management Institute
IWRM	Integrated Water Resources Management
JPL	Jet Propulsion Lab
JUST	Jordan University of Science and Technology
KISR	Kuwait Institute for Scientific Research
LOE	Level of Effort
LMI	Lower Mekong Initiative
MEDRC	Middle East Desalination Research Center
MENA NWC	Middle East and North Africa Network of Water Centers of Excellence
MPE	Mekong Partnership for the Environment
MRC	Mekong River Commission
NCARE	National Center for Agricultural Research and Extension
NGO	Non-Governmental Organization
NRW	Non-Revenue Water
NRWB	Northern Region Water Board [Malawi]

NWRC	National Water Research Center
OES	State Department's Oceans, Environment, and Science Bureau
OMEF	Office of Middle East Programs
ONEA	L'Office National de l'Eau et de l'Assainissement [Burkina Faso]
ORSAM	Middle Eastern Center for Strategic Studies
OSU	Oregon State University
PEER	Partnerships for Enhanced Engagement in Research
PIP	Performance Improvement Plan
PO	Purchase Order
PR&D	Policy, Research and Development
QEERI	Qatar Environment and Energy Research Institute
QNFSF	Qatar National Food Security Program
RDMA	USAID's Regional Development Mission for Asia
R&D	Research and Development
REO	Regional Environment Office
RFA	Request for Applications
RFP	Request for Proposals
RSS	Royal Scientific Society
RWS	Reference Weather Stations
SEEG	Société d'Énergie et d'Eau du Gabon
SIM	Smart Infrastructure for the Mekong
SNDE	Société Nationale des Eaux [Congo]
SODECI	Société de Distribution d'Eau de la Côte d'Ivoire
SQU	Sultan Qaboos University
STE	Société Tchadienne des Eaux
TAMU	Texas A&M University
TFDD	Transboundary Freshwater Dispute Database
TOR	Terms of Reference
TRG	Training Resources Group, Inc.
UJ	University of Jordan
UNL	University of Nebraska-Lincoln
USAID	United States Agency for International Development
USG	United States Government
USU	Utah State University
WASH	Water, Sanitation, and Hygiene
WHOI	Woods Hole Oceanographic Institute
WU	Wageningen University, Netherlands
WWW	World Water Week
YWP	Young Water Professionals
YWSP	Young Water Scientist Partnerships Small Grants Program

EXECUTIVE SUMMARY

FABRI's ninth Quarterly Progress Report provides an implementation update on the six key activity results which support improved management of water in the Middle East and Africa, project management updates, and any major issues faced and how they were resolved.

Technical Program

Result 1: Middle East and North Africa Network of Centers of Excellence Established and Operating.

- FABRI negotiated Policy, Research, and Development (PR&D) grant awards for seven projects. FABRI has received a total of sixteen PR&D proposals as of December 14, 2013.
- FABRI received three Water Innovation Fellowship proposals during this period.
- FABRI selected Taoti Creative in Washington, DC to design and launch a website for the MENA NWC.

Result 2: Integrated Water Resources Management (IWRM) Programming Strengthened.

- FABRI negotiated a PR&D Grant award for one IWRM project during this quarter.

Result 3: Access to Clean Water and Sanitation Improved in Target Countries.

- The African Water Association (AfWA) and FABRI convened a three-day NRW Task Force members meeting in Mbabane, Swaziland on November 9-11, 2013.
- FABRI attended the third East African Young Water Professionals Conference in Nairobi Kenya December 9-11, 2013.
- The Zimbabwe Young Water Professionals (YWP) national chapter was formed.

Result 4: Research and Development Capacities in Irrigation, Groundwater Management, and Drought Risk Assessment and Mitigation Strengthened.

- FABRI negotiated and awarded three PR&D Grant awards for projects relating to irrigation, groundwater management, and drought risk assessment and mitigation.

Result 5: Transboundary Water Cooperation Strengthened in Key River Basins.

- During the reporting period, the Senior Mekong Affairs Advisor supported the USAID/RDMA Regional Environmental Office and Executive Office by conducting an analysis of USG assistance to the Mekong River Commission (MRC).
- FABRI worked on an overarching donor coordination strategy, promoted several public-private partnerships, and is assisting in preparation for a series of meetings leading up to the Asia Ministerial

Conference on Disaster Risk Reduction (AMCDRR6), to be hosted by the Government of Thailand in June 2014.

Result 6: Technical and Outreach Capacity of USAID Staff in Water and Sanitation Programming Enhanced.

- FABRI was directed by the Founders Committee to design and convene five thematic partnership workshops and a MENA NWC Congress over the following 18 months. USAID staff will be encouraged to attend.

Project Management

- During this period, FABRI issued a subcontract to the California Institute of Technology (Caltech) for [REDACTED] for a research project entitled “Radar Probing of Groundwater in Hyper-Arid Environments: Understanding Aquifer Dynamics in High Discharge Areas.”
- FABRI requested and received CO approval during this quarter to issue the first six grants under the PR&D Grants Program.
- FABRI issued two Fixed Price Purchase Orders (FPPOs) to Malcolm Farley Associates for a Non-Revenue Water Expert to assist with planning for the audit synthesis report, Performance Improvement Plan outlines, and the design of sessions for the Task Force Meeting in November 2013.
- FABRI issued extensions for the Water Innovation Fellowship (WIF) and Young Water Scientist Partnership (YWSP) APS proposal submission deadlines to March 31 and February 28, 2014, respectively, to allow for consideration of additional proposals.

Issues and Remedies

Three issues faced by project management during this quarter include: The Founders Committee directive that FABRI design and convene five thematic partnership workshops and MENA NWC Congress have placed a heavy, labor intensive burden on the project. In response, FABRI has secured the agreement of its COR to recruit a new full-time team member: Middle East Conference Manager. Prospective grantees have been slow to submit proposals for the three small grants programs. FABRI will aggressively pursue ways to publicize the programs. It will also hold proposal writing workshops with Centers for the MENA NWC grants and at AfWA conferences for the AfYWP grants program. The Network cannot be sustainable without the infusion of additional funds, outside USAID’s contribution. In response, FABRI has released an RFP to procure the services of a specialized fundraising firm.

1. INTRODUCTION

Water plays a pivotal role in the political, economic and social lives of nations and people. Many countries, including those in the Middle East and Africa, are facing common water challenges- drought, inefficient agricultural water use, groundwater management, inadequate or poor quality water supply, weak or absent mechanisms for sharing transboundary water, etc. Such challenges can lead to conflict within communities and among countries, as well as have negative health, financial and social impacts on populations.

To help respond to these regional water challenges, FABRI is providing technical support to USAID's Middle East and Africa bureaus, fulfilling all requests at the highest technical standards. In this capacity, FABRI has launched and established a new regional water network called the Middle East and North Africa Network of Water Centers of Excellence (MENA NWC), strengthened integrated water resources management programming, improved the long-term viability of water and sanitation service providers, rationalized water allocations and use, encouraged collaboration among riparians in transboundary river basins, and raised USAID visibility in water and sanitation.

Partnerships form the foundation of all aspects of this initiative. FABRI develops partnerships—between and among the scientific community, governments, universities and research institutions, the private sector, and civil society—to achieve the project's goals and to ensure that the water sector in the Middle East and Africa is capable of sustaining, and building on those achievements after FABRI has closed. We are forging intellectual and financial partnerships among the water sector's major players to create an integrated process that spans the identification and design of new approaches and technologies to their production and adoption. Continued investments and advances in the water sector will improve economic output, agricultural returns, and public health and ease economic burdens and alleviate human suffering.

FABRI's core result is the launch of the Middle East and North Africa Network of Water Centers of Excellence (MENA NWC). This initiative is an outcome of President Obama's call to establish Centers of Excellence in the Muslim World during his June 2009 "New Beginnings" speech in Cairo. Secretary Clinton also mentioned the initiative during her World Water Day speeches in 2010 and 2011.

MENA NWC links technical and research institutions across the region, encouraging them to work together and with outside counterpart institutions on critical water challenges. The Network strives to foster partnerships that build and exchange regional science and technology capacity to improve water resources planning and management; and develop and disseminate policy tools and technical and management interventions that expand water supply, manage demand, and dramatically increase its efficient and productive use.

A network of cooperating institutions are facilitating collaborative activities, including competitive grants programs, capacity building, institutional twinings, exchanges, fellowships, communications, and knowledge management. The Network is the main vehicle for FABRI's goal to strengthen the water sector in the Middle East and North Africa.

Additionally, FABRI is supporting innovative WASH activities in Africa, focusing on providing institutional support to two regional associations to test and share successful approaches in non-revenue water and on setting national policies to enhance sanitation programs throughout Africa.

FABRI's ninth quarterly report outlines the program's achievements and plans to build regional capacity of various actors from the water sector in the Middle East and Africa.

2. PROGRESS DURING THE QUARTER

FABRI has six major objectives:

- **Result 1: Establish an operational Middle East and North Africa Network of Centers of Excellence (MENA NWC).** FABRI is supporting the creation of the MENA NWC by acting as the Interim Management Unit until a Secretariat is established. The initiative will establish MENA NWC organization, leadership, and finances, as well as manage collaborative, technical, and capacity-building activities via Policy, Research, and Development (PR&D) Grants. Through the MENA NWC, FABRI aims to integrate research and development capacity in the member Centers with the development and dissemination of applied technologies and practices for innovative approaches, systems, and technologies to address water issues important to the region. An important piece of this work is the development of a communications and knowledge sharing plan to support the sustainability of the Network.
- **Result 2: Strengthen Integrated Water Resources Management Programming.** FABRI is strengthening the legal and regulatory framework for IWRM and implementing methodologies to improve and promote the efficient use of water resources through the MENA NWC IWRM Thematic Partnership.
- **Result 3: Access to Clean Water and Sanitation Improved in Target African and Middle Eastern Countries.** FABRI is strengthening the performance of water and sanitation service providers by working with regional “platforms” and associations. The goal is to provide them with innovative and tangible support to improve financial, economic, and operating efficiency, including development of association Business Plans, Non-Revenue Water (NRW) initiatives, capacity building, and communications and knowledge sharing programs.
- **Result 4: Strengthen Research and Development Capacities in Irrigation, Groundwater Management, and Drought Risk Assessment and Mitigation.** FABRI is working with one of the MENA NWC Thematic Partnerships to identify the most promising and regionally-relevant technologies and techniques for efficient, productive use of water in agriculture; engaging the leading experts in these technologies to transfer knowledge to MENA NWC institutions; and developing and presenting outreach activities in target countries to encourage government engagement and private sector partnerships around the most successful approaches.
- **Result 5: Strengthen Transboundary Water Cooperation in Key River Basins.** Through Oregon State University, FABRI is conducting an analysis of transboundary cooperation approaches and applying study findings to the Tigris-Euphrates basin. The results will be used to identify, design and implement one or two pilot projects. In addition, FABRI hired a Senior Mekong Affairs Advisor based in Bangkok, Thailand who began work in August 2013.
- **Result 6: Enhance Technical and Outreach Capacity of USAID Staff in Water and Sanitation Programming.** FABRI will strengthen USAID staff capacity in this area by providing materials and insights based on our non-revenue water and sanitation programs in Africa.

The following section describes the progress that FABRI has made on each of these objectives during the quarter.

RESULT 1: MIDDLE EAST AND NORTH AFRICA NETWORK OF CENTERS OF EXCELLENCE ESTABLISHED AND OPERATING

Requirement 1.1: Support Establishment of MENA NWC

This activity is completed.

Requirement 1.2: Design a Trust Fund or Endowment to Help Ensure the Sustainability of the Network

The Founders Committee agreed that the creation of a trust fund or endowment for MENA NWC ought to be considered near the end of the current business planning period in 2017. This activity is currently on hold.

Requirement 1.3: Support Operations of the MENA NWC Secretariat

MENA NWC marked a key milestone this quarter. In December 2013, MENA NWC was incorporated in Washington, D.C., becoming a legally registered not-for-profit organization. In the coming months, FABRI will work closely with USAID, the Founders Committee, and its legal counsel to finalize bylaws for the Network. Once approved, these will be submitted to the U.S. Internal Revenue Service (IRS) along with the Network's application for tax exempt status.

In addition, the Network is actively recruiting new institutional members of MENA NWC. Invitations have been extended to the University of Sanaa in Yemen, Ben Gurion University in Israel, and the American University of Beirut in Lebanon. In the coming months, FABRI will work closely with the new members to integrate them into the Network research activities and programs.

In addition, FABRI completed a final draft of the Network's five-year Strategic Business Plan, which covers the operational period of MENA NWC from 2014 to 2018. The Founders Committee reviewed and provided feedback on the Business Plan at their meetings in June and September 2013 and will approve a final version at their last meeting in Amman in February 2014. The Business Plan supports the Network during a transitional period as it proceeds through legal registration, staffing, technical program expansion, physical establishment, and fundraising.

In addition to work on the business plan, through a competitive procurement process FABRI selected a firm, Taoti Creative, to design and launch a website for MENA NWC. A working group composed of FABRI and USAID has met twice with Taoti to prepare for stakeholder interviews and begin initial design work.

In December, FABRI released a Request for Proposals (RFP) to solicit proposals to develop innovative approaches to ensure the financial sustainability of MENA NWC. The successful bidder will develop a realistic strategy, an achievable action plan, and content for effective marketing materials to that end. Proposals are due January 31, 2014.

The FABRI COP continued to serve as Acting Director of the Network's Secretariat. He has been in regular and frequent communication with participating Centers. In December, he traveled to the Gulf with FABRI's USAID COR to visit MENA NWC Centers in Dubai, Bahrain, Oman, and to speak with entities in Kuwait. In Bahrain, they met with Arabian Gulf University (AGU) and discussed their online

training platform, which is the only program in the Middle East to offer an online certificate in water management.

Planned Activities for the Second Quarter of Year Three

- Integrate new MENA NWC Centers into ongoing Network activities
- Finalize bylaws for MENA NWC
- Prepare and submit application to the IRS for tax-exempt status
- Finalize the 2014-2018 Strategic Business Plan
- Collaborate with Taoti Creative on a design for the MENA NWC Website
- Select a firm to work with MENA NWC on a financial sustainability strategy and action plan
- Prepare concept paper on capacity building using online training platforms

Requirement 1.4: MENA NWC Founders Committee Established

FABRI is preparing for the Founders Committee's final meeting in February 2014. The two-day meeting will be held at the Kempinski Hotel at the Dead Sea in Jordan. Following the meeting, the Founders Committee will travel to Amman to attend an international conference, "Water in the Arab World" organized by the University of Jordan in cooperation with the Jordan Ministry of Water and Irrigation. During the quarter, FABRI signed a contract with the Kempinski hotel and began to make travel arrangements for Founders Committee members. Following the meeting, the Founders Committee will be recast as the Interim Board of Directors, in order for the IMU to apply to the Internal Revenue Service for the Network's tax exempt status as a 501(c)(3). It will continue in that role until the permanent Board is in place in July 2014.

FABRI has collected nominations from Founders Committee members for candidates to the Board of Directors. The Founders Committee will review initial candidates for the permanent Board at its meeting in February.

Planned Activities for the Second Quarter of Year Three

- Prepare briefing book for Founders Committee members that will include updates on: each of the research programs, planning for five thematic partnership meetings, planned capacity development initiatives, progress on website design, and status of financial sustainability strategy
- Collaborate with the Founders Committee to identify candidates for the MENA NWC Board of Directors

Requirement 1.5: Technical, Demonstration Activities of the Network Launched

Negotiated Grant Awards. FABRI negotiated Policy, Research, and Development (PR&D) Grant awards for seven projects. Proposals and projects relating to the Food-Energy-Water Nexus, Non-Conventional Water, and Water Supply and Sanitation Thematic Partnerships are summarized in the table below. Proposals and projects relating to Integrated Water Resources Management are presented in Result 2, and proposals and projects relating to Irrigation, Groundwater Management, and Drought Risk Assessment and Mitigation are presented in Result 4.

Research Proposal Development. FABRI received no new proposals for PR&D Grants, but extended the proposal deadline from November 3, 2013 to February 3, 2014. FABRI has received a total of sixteen proposals as of December 14, 2013. As of December 14, 2013, five teams continued to prepare proposals.

PROPOSALS RELATING TO WATER-FOOD-ENERGY NEXUS, WATER SUPPLY AND SANITATION, AND NON-CONVENTIONAL WATER

Proposal Topic	Participating Centers	External Partners	Status
Awards in Negotiation			
<i>Water-Food-Energy Nexus</i>			
Developing an Integrated Water, Energy, and Food Resource Management Tool for Policy Analysis and Decision Support	QNFSP INRGREF UJ	Purdue	Provisional award in negotiation
<i>Non-Conventional Water</i>			
Use of Green Nanoparticles as a Biofouling-Resistant Agent in Reverse Osmosis Desalination	JUST ONEE	University of Rhode Island University of Toledo-Ohio Georgia Tech	Award in negotiation
<i>Water Supply and Sanitation</i>			
Expanding Access to Sanitation for Unsewered Communities in Middle East and North Africa Countries	ONEE RSS UJ IAV	R&D Maroc	Provisional award in negotiation
Declined Proposals			
<i>Water-Food-Energy Nexus</i>			
Energy Efficient and Environmentally Friendly Water Distribution Networks	UJ ONEE QEERI ACWUA		Declined
<i>Non-Conventional Water</i>			
Enhancing Cost Recovery in Wastewater, Greywater and Fecal Sludge Management through Safe Reuse	IWMI SQU JUST An Najah	UC Davis	Declined
Proposals in Progress			
<i>Water-Food-Energy Nexus</i>			
Developing a Road Map for Low-Carbon, Low-Cost Water Supply in the MENA Region	AGU IAV QEERI RSS UJ		In progress
Investigating and Modeling Optimum Pumping Technologies for Different Water Applications	RSS IAV UJ		In progress
<i>Non-Conventional Water</i>			
Solar Pumping and Desalination	UJ An Najah	USU	Resubmit in progress

Negotiated Awards and Presented Grant Administration Orientations in Tunisia, Oman, Qatar, United Arab Emirates, Tunisia, and Jordan. FABRI visited several Centers to finalize the budgets for PR&D Grant awards in negotiation, and to deliver training on FABRI grants award and administration procedures. The visits included the following:

- FABRI Chief of Party (COP) Peter Reiss visited INRGREF in Tunisia on October 30 and 31 to work with investigators on the budgets for PR&D Grant awards in negotiation, and to deliver training on FABRI grants award and administration procedures.
- Peter Reiss and FABRI Middle East Activity Manager, Christel Milazzo, visited JUST, UJ, RSS, ACWUA, ICARDA, and NCARE in Jordan, between November 2 to 7 to work with investigators on budgets for PR&D Grant awards in negotiation, and to deliver training on FABRI grants award and administration procedures. They also held a group meeting to update the Center Directors, Technical Leads, Principal Investigators, and Directors of Finance on MENA NWC activities and grants, and a group proposal workshop for the Young Water Scientists and Water Innovation Fellowships programs.
- Between November 22 and 27, Grants Program Manager Kenneth Ludwa visited SQU in Oman and ICBA in United Arab Emirates to finalize the budgets for PR&D Grant awards in negotiation. Mr. Ludwa also delivered training on FABRI grants award and administration procedures at QNFSP in Qatar.
- Peter Reiss, accompanied by FABRI COR, John Wilson, (USAID ME/TS), visited SQU and ICBA between December 9 and 12 to update Center directors on MENA NWC activities and deliver training on FABRI grants award and administration procedures.

U.S.-Network Research Partnerships. FABRI continued to launch subcontracts for four research projects to apply emerging technologies in the region:

1. Combating the Emerging Impacts of Harmful Algal Blooms on Desalination Plants: Bloom Detection, Forecasting, and Strategies for Impact Reduction (led by MEDRC).

During the quarter ending December 14, 2013, FABRI and MEDRC finalized budget details and planned the kickoff meeting, which will be held at Woods Hole Oceanographic Institution on January 9 and 10, 2014.

2. The Global Yield Gap and Water Productivity Atlas for Jordan, Morocco, and Tunisia.

The University of Nebraska's Global Yield Gap Atlas for the Middle East and North Africa (GYGA-MENA) project began on September 1, 2013. The following is a summary of project activities between the kickoff meeting held on September 10-12, 2013 and December 14, 2013.

Participation of GYGA-MENA Scientists at Project Symposium and Visit to UNL. Seven scientists from the three participating institutions attended the greater GYGA project symposium at the 2013 ASA-CSSA-SSSA Annual Meetings during Nov 3-5 in Tampa, FL, US. After the symposium, the experts visited the University of Nebraska-Lincoln (UNL) for a project workshop and visited UNL's irrigation research facilities at Clay Center and the extension education programs at Mead. The activities were organized primarily for capacity building of the participating institutions.

Finalized Agreements with Sub-awardees. UNL has finalized the agreements with two sub-awardees, Wageningen University (WU) and Alterra, as well as the contracts with the National Center for Agricultural Research and Extension (NCARE), Jordan, and the Institut Agronomique et Vétérinaire Hassan II (IAV), Morocco. The contract with the Tunisian partner is being rewritten due

to a change in partner entity from the Institut National de Recherche en Génie Rural Eaux et Forêts (INRGRF) to the Institution of Agricultural Research and Higher Education (IRESA).

During the next quarter, UNL plans to finalize the GYGA-MENA agreement with the Tunisian partners. They will also develop climate zones for GYGA-MENA countries/regions, determine harvest areas for each crop based on SPAM map and verify them by GYGA-MENA teams, and identify reference weather stations (RWS) based on harvest area maps for each crop.

3. Radar Probing of Groundwater in Hyper-Arid Environments: Understanding Aquifer Dynamics in High Discharge Areas.

As conceived by the California Institute of Technology (Caltech) in association with the Jet Propulsion Laboratory (JPL) in Pasadena, the study will map the ground deformation associated with water table depth variation over segments of the North African and coastal aquifers in Morocco and Oman where high discharge rates are observed. The study will map the depth of the water table and explore radar capability to monitor the water freshness from signal decay measurements in high discharge zones. The study uses technologies first developed for use on Mars. The Network Centers participating in the research project are the Institute of Agronomy and Veterinary Science Hassan II (IAV)/ R&D Maroc in Morocco and Sultan Qaboos University (SQU) in Oman.

During this quarter, FABRI signed a subcontract with Caltech for [REDACTED] and [REDACTED]

During this time, Caltech completed the following steps:

- Identified the satellite radar data needed, and computers and software to process satellite imagery
- Discussed scientific and technical collaboration with colleagues at Qatar Environment and Energy Research Institute (QEERI) and Kuwait Institute for Scientific Research (KISR) in support of the FABRI project
- Coordinated with MENA NWC partners in Oman and Morocco to develop a list of candidate field survey sites in Oman (year one), and planned for the kick-off meeting scheduled for January 2014.

During the next quarter, Caltech and partners will host the project kick-off meeting in Muscat, Oman in late January 2014. The research partners will solidify plans for the first field survey and trainings, select the first field survey site (geographic focus in Oman) based on geomorphology of the region, and work with MENA NWC partners to identify and collect supporting data for the aquifer (well logs, etc).

4. Developing and Applying Non-Revenue Water Reduction Decision Support Criteria and Tools.

The major objectives of the proposed research project, led by the Arab Countries Water Utilities Association (ACWUA) are to sustainably reduce the level of non-revenue water (NRW) – both real and apparent losses – in major cities in the MENA region and hence increase the efficiency of water resource use and reduce unnecessary operational costs. The project will start with an in-depth comparative study of NRW reduction strategies in the Middle East and North Africa, Europe, and North America. Study results will be used to identify a series of managerial, operational, technical and other measures to reduce the level of real and apparent water losses. ACWUA has submitted a revised proposal which is near ready for submission to USAID for approval.

Young Water Scientist Partnership (YWSP) Small Grants Program. FABRI extended the Young Water Scientist Partnerships (YWSP) small grants proposal deadline to March 31, 2014. YWSP stimulates collaboration between the Centers' young water research scientists small grant through projects that address a policy, operational, technical, or managerial issue that is identified by stakeholders in government, business, NGOs, or civil society. The small grants program is open to full-time or part-time employees of MENA NWC Centers between the ages of 21 and 40.

Water Innovation Fellowships (WIF). FABRI extended the Water Innovation Fellowships (WIF) proposal deadline to February 28, 2014. Water Innovation projects must address a policy, operational, technical, or managerial issue that is identified by stakeholders in government, research or academic entities, business, NGOs or civil society. The Water Innovation Fellowship Small Grants Program is open to water research scientists and water practitioners of any age. Applicants must be citizens of a Middle Eastern and North African country eligible for USAID funding, currently resident in the Middle East and North Africa, and full-time employees of an institution or entity based in the Middle East and North Africa. FABRI received three WIF proposals during the quarter ending December 14, 2013.

Planned Activities for the Second Quarter of Year Three

- FABRI will complete the grant awards, and support and attend the kickoff meetings for the seven PR&D grants in negotiation
- FABRI will receive the remaining PR&D Grants proposals, convene a final Selection Committee, evaluate proposals, advise Centers of award decisions, negotiate grant terms, and award grants FABRI expects to finalize subcontracts with MEDRC, UNL, and ACWUA for the unsolicited proposals
- FABRI will attend the kickoff meeting for the MEDRC project
- FABRI will commence planning for meetings of the five Thematic Partnerships in 2014

Requirement 1.6: Network Strengthening Through Private Sector Participation

During this quarter, FABRI continued its dialogue and meetings with businesses, and extended its communication and outreach activities. FABRI helped to finalize a partnership agreement between ACWUA and the DHI Group to cooperate on ACWUA's research proposal on non-revenue water (NRW). DHI is an international firm that offers a wide range of consulting services and cutting-edge technologies with a specific focus on NRW. The partnership represents an ideal cooperation model that combines research with applied knowledge and experience to address an operational challenge facing water utilities in the MENA region. DHI is expected to contribute 18 days of expert LOE over the life of the project.

As part of its communication activities, FABRI disseminated the October MENA NWC Newsletter which featured an article on partnerships, to businesses and Centers. Businesses, centers, and NGOs also attended the Small Grants Workshop, hosted in Amman on November 6, 2013 at the Royal Scientific Society. The workshop provided a venue for the Centers to meet and network with businesses and other stakeholders. Several businesses expressed their interest in submitting proposals for funding and discussed opportunities for cooperation with the centers. One company, Madian for Smart Green Buildings, submitted a proposal for a Water Innovation Fellowship; additional proposals are in development by businesses such as EDAMA and Kawar Energy.

During a November visit to Amman, the FABRI COP attended several meetings with businesses, including a meeting with the CEO of EDAMA to discuss future opportunities for cooperation. EDAMA is

a Jordanian Business Association that seeks innovative solutions for energy and water independence and productivity. During the meeting, FABRI agreed to work with EDAMA on upcoming business engagement activities in Jordan, and EDAMA agreed to participate in upcoming research proposals.

Planned Activities for the Second Quarter of Year Three

- Design a training program for MENA NWC Centers on public private partnerships
- Continue facilitation of meetings between the Centers and the private sector
- Finalize the memorandum of understanding between FABRI and EDAMA

RESULT 2: INTEGRATED WATER RESOURCES MANAGEMENT PROGRAMMING STRENGTHENED

FABRI is implementing Result 2, Integrated Water Resources Management (IWRM) Strengthening, through MENA NWC research projects. FABRI negotiated a PR&D Grant award for one IWRM project during this quarter (see table below).

PROPOSALS RELATING TO INTEGRATED WATER RESOURCES MANAGEMENT

Proposal Topic	Participating Centers	External Partners	Status
Awards in Negotiation			
Mitigating Environmental Risks of Wastewater Reuse for Agriculture	SQU INRGREF UJ	University of Florida	Provisional award in negotiation
Declined Proposals			
Mainstreaming of Watershed and Crop Modeling in the Decision Making Process to Improve Land and Water Productivity in Morocco and Tunisia	ICARDA IAV INRGREF	TAMU Eawag	Declined
Adapting the latest METRIC and GIS Technologies to Improve Water Resources Management at Large Scale: Impact of Climate Variability and Policy Implications in Jordan, Morocco and Tunisia	IAV INRGREF NCARE	CNRST, Morocco	Declined
Assessment of Environmental and Health Hazards of Using Treated Wastewater for Agriculture	IAV INRGREF UJ		Declined

Planned Activities for Second Quarter of Year Three

- FABRI will support and attend the kickoff meeting for the project “Mitigating Environmental Risks of Wastewater Reuse for Agriculture.”

RESULT 3: ACCESS TO CLEAN WATER AND SANITATION IMPROVED IN TARGET COUNTRIES

Requirement 3.1: Water and Sanitation Service Provider Performance Strengthened

Non-Revenue Water Program. The AfWA Non-Revenue Water Task Force members conducted a three-day meeting in Mbabane, Swaziland 9-11 November 2013. The NRW Task Force meeting was convened to review the status of completed audits, schedule for the remaining audits and plan for the next phase of the NRW program: the synthesis report of all the audits completed and the performance improvement plans (PIPs). Additionally, the members discussed and planned for three NRW sessions to be held during the AfWA Congress in Abidjan, in February 2014. During this quarter two new members, one from Benin and one from Cote d'Ivoire, joined the program. South Africa's Johannesburg Water also rejoined the program. Of the 16 Task Force members, 12 participated in this meeting.

The NRW Task Force members are working on scheduling and completing the remaining audits with the utilities listed below.

Organization	Audit Team
January 2014	
NRWB, Malawi	Lutayaa (Uganda), Dlamini (Swaziland)
STE, Chad	Iderdar - <i>chef</i> (Cameroon), Gosso (Cote d'Ivoire), Klican (Benin)
February 2014	
Abidjan, Cote d'Ivoire	AfWA Congress and NRW Task Force Meeting and Sessions
Bauchi, Nigeria	Dlamini (Swaziland), Mbali Rose (South Africa)
March 2014	
GUWL, Ghana	Onyango (Kenya), Oguah (Ghana)
SODECI, Cote d'Ivoire	Sawadogo - <i>chef</i> (Burkina Faso), Gosso (Cote d'Ivoire), Iderdar (Cameroon), Bilong (Gabon)
April 2014	
SNDE, Congo Brazzaville	Bilong - <i>chef</i> (Gabon), Sawadogo (Burkina Faso), Klican (Benin)
ONEA, Burkina Faso	Ball - <i>chef</i> (Senegal), Gosso (Cote d'Ivoire), Sawadogo (Burkina Faso)
May 2014	
SEEG, Gabon	Gosso - <i>chef</i> (Cote d'Ivoire), Tchagole (Togo), Bilong (Gabon)

African Young Water Professionals Small Grants Program (AfYWP). The FABRI Africa Activity Manager attended the third East African YWP Conference in Nairobi, Kenya 9-11 December 2013 and presented the AfYWP Small Grants Program and encouraged YWPs to submit proposal. In addition to the first received proposal, four more proposals are in draft stage and proposal ideas about several other projects were discussed during the meeting.

Also, during this quarter, the Zimbabwe chapter was formed. Previously formed national chapters include Kenya, Uganda, Rwanda, Cameroon, Senegal, Tanzania, Chad, Mali, and Togo, and South Africa. The next group to be formed includes Benin, Burkina Faso, Burundi, Cote d'Ivoire, DRC, Ghana, and Namibia, Mozambique.

AfWA Business Plan. FABRI is pleased to note that the Executive Board of AfWA gave final approval of the Business Plan at the last Scientific and Technical Council meeting in Zambia in November. The design phase is now completed, and AfWA is now responsible to implementing the plan which sets a clear course for expansion and impact.

Communications and Knowledge Exchange. During this period, FABRI completed the AfWA website design Request for Proposals (RFP) for release in the following quarter. As AfWA is a membership-based organization, the main goal of the website will be to provide technical resources to its members. It will also allow members to join and pay their dues online. Simplifying the membership and payment process should help increase membership. In addition to the website highlighting AfWA members' WASH accomplishments, it will also highlight AfWA's technical programs in WASH and incorporate training and educational materials.

Planned Activities for the Second Quarter of Year Three

- Plan for a donors meeting, a managing directors meeting, and a knowledge and communications exchange meeting during the next AfWA Congress
- Complete the NRW utility audits in Malawi, Chad, and Nigeria
- Submit the AfYWP grant proposals to the Selection Committee for review

RESULT 4: RESEARCH AND DEVELOPMENT CAPACITIES IN IRRIGATION, GROUNDWATER MANAGEMENT, AND DROUGHT RISK ASSESSMENT AND MITIGATION STRENGTHENED

Requirement 4.1: Conduct Identification and Analysis of U.S., Regional, and International Water Programs Aimed at Promoting Efficient, Productive Use of Water in Agriculture in the MENA Region

FABRI will implement Result 4 through MENA NWC research projects. FABRI negotiated three PR&D Grant awards for projects relating to irrigation, groundwater management, and drought risk assessment and mitigation during this quarter (see table below). As of December 14, 2013, two teams continued to prepare proposals.

FABRI is deferring the provisional award for the proposal “Managed Aquifer Recharge Using Treated Wastewater,” pending the acquisition of additional grants funds, because the proposal is the second from SQU as lead Center.

**PROPOSALS RELATING TO IRRIGATION, GROUNDWATER MANAGEMENT,
AND DROUGHT RISK ASSESSMENT AND MITIGATION**

Proposal Topic	Participating Centers	External Partners	Status
Awards in Negotiation			
Efficient Treatment and Provision of High-Quality Reclaimed Effluents Suitable for Irrigation	Technion NCARE	Al Quds University, Ministry of Agriculture Extension Service (Israel)	Provisional award in negotiation
Application of Near-Real Time Monitoring Systems for Irrigated Agriculture	ICBA INRGREF SQU NCARE		Provisional award in negotiation
Developing Partnerships and Innovative Technologies to Improve Water Use Efficiency at River Basin Scale in Jordan, Morocco and Tunisia	INRGREF NCARE IAV	UC Davis	Provisional award in negotiation
Awards on Hold			
Managed Aquifer Recharge Using Treated Wastewater	SQU UJ RSS	UNL JPL	Provisional award pending securement of additional grants funds
Declined Proposals			
Guidelines for Artificial Groundwater Recharge Using Flood Farming	UJ ICBA	UNL	Declined
Proposals in Progress			
Sustainability of Groundwater Use in Tunisia and Jordan	ICARDA INRGREF NCARE	UC Davis, Environmental Law Institute	Resubmit in progress
Water Footprint Benchmarking Insight for Water Management Policy in MENA	UJ		In progress

Planned Activities for Second Quarter of Year Three

- FABRI will support and attend the kickoff meetings for three PR&D Grants projects relating to irrigation, groundwater management, and drought risk assessment and mitigation.

RESULT 5: TRANSBOUNDARY WATER COOPERATION STRENGTHENED IN KEY RIVER BASINS

Requirement 5.1: Conduct Analysis of U.S. and Regional Transboundary Water Cooperation Programs, with a Focus on the Euphrates, Tigris, and Nile Basins

Oregon State University’s Program in Water Conflict Management and Cooperation led by Prof. Aaron Wolf submitted a third draft of an assessment of regional transboundary water cooperation programs. The Program houses the Transboundary Freshwater Dispute Database (TFDD), the largest collection of information on transboundary conflict and cooperation in the world.

Planned Activities for Second Quarter of Year Three

- Finalize the final report from Oregon State University for submission to USAID and for widespread dissemination.

Requirement 5.5: Launch Pilot Project in Key River Basin

USAID asked FABRI to provide a full-time expert to assist it with Mekong River Commission (MRC) support. Klomjit Chandrapanya was chosen to serve as Senior Mekong Affairs Advisor. The role of the Advisor is to prepare a comprehensive long-term, external engagement strategy for the USAID Regional Development Mission for Asia (RDMA) to promote fair and effective governance of water, food, and energy in the Greater Mekong Sub region (GMS) as it relates to development of hydropower on the Mekong River. She is also responsible for strategy execution and coordination, including developing a five-year Plan of Action to implement the RDMA's Mekong External Engagement Strategy that specifies key activities, required tasks, responsible actors, and due dates, and for communications and outreach. Klomjit Chandrapanya began working for FABRI on August 5, 2013.

The Mekong River Commission is the only regional intergovernmental body in the lower Mekong basin that acts as a forum for member countries to discuss transboundary water resources management. The US government has a strong interest in strengthening the MRC. Former Secretary Clinton pledged support of up to USD one million for its study to close the knowledge gap on sustainable development in the basin and USAID RDMA has provided USD two million to its Fisheries program. Meanwhile, various US Government agencies have provided or are providing technical support to the organization. However, there is no coordination among these USG agencies and no one entity that has comprehensive information on overall US support to the MRC.

During this reporting period, the Senior Mekong Affairs Advisor provided support to the USAID/RDMA Regional Environmental Office by quantifying the technical assistance provided by USG agencies and sharing this information with the Mekong River Commission (MRC). The analysis will be useful for MRC as it moves towards decentralization of its core functions (e.g. water quality monitoring, basin planning) to member countries.

The Senior Mekong Affairs Advisor also followed up with the MRC on member countries' approval of a TOR for a study to which the USG had pledged support, provided inputs for the midterm review of the MRC's Strategic Plan for 2011-2015 and USG analyses on Laos' proposed Don Sahong hydropower project, and advised the Sustainable Mekong team on its Mekong Partnership or the Environment (MPE) and Smart Infrastructure for the Mekong (SIM) projects.

In addition, she supported the USAID/RDMA Executive Office by identifying opportunities to work with other development partners, regional organizations, and the private sector. She helped USAID/RDMA establish a private sector partnership through activities with the Asian Development Bank's Greater Mekong Sub-region (GMS) Business Forum (GMS-BF), and brought together the GMS-BF Honorary Chair and the UN Office for Disaster Risk Reduction (UNISDR) Asia Office to discuss opportunities to engage the private sector on disaster risk reduction (DRR). RDMA will work together with the UNISDR and GMS-BF to organize disaster management workshops/ meetings to help businesses develop business continuity plans in the event of natural disasters. The events will be held in conjunction with planned meetings for the sixth biennial Asia Ministerial Conference on Disaster Risk Reduction (AMCDRR6), which the Government of Thailand will host in June 2014. The first such meeting will be in March 2014, and will allow USAID to leverage work that the UNISDR has already done to bring together a diverse

base of key stakeholders, including government representatives, donor organizations, academics, and NGOS.

In order to strengthen partnerships with other development partners, the Senior Mekong Affairs Advisor is collaborating with another USAID/RDMA Senior Advisor to develop an overarching donor coordination strategy. The key issues addressed during this period were how to have more tangible engagement and how to improve coordination with other donors in the region, particularly through the Lower Mekong Initiative (LMI). The Senior Mekong Affairs Advisor will have further conversations about this at a higher level with the State Department.

Planned Activities for Second Quarter of Year Three

- Continue to support Klomjit Chandrapanya in her role as Senior Mekong Affairs Advisor
- Contribute to the development of a comprehensive plan for USG support and strengthening of the MRC, as MRC begins to restructure and decentralize core functions
- Finalize plans for collaboration with GMS-BF and the UNISDR on the first meeting in March 2014, and explore other thematic issues for collaboration between USAID and GMS-BF. These could include strengthening women entrepreneurs and improving social and environmental safeguards for infrastructure projects in the Mekong
- Support RDMA's Executive Office by developing plans and activities related to donor coordination, including the Friends of LMI and regional organizations such as ASEAN and the Asian Development Bank

RESULT 6: TECHNICAL AND OUTREACH CAPACITY OF USAID STAFF IN WATER AND SANITATION PROGRAMMING ENHANCED

Requirement 6.2: Increase USAID's Visibility and Outreach on Water Issues

The MENA NWC Founders Committee has asked FABRI to design and convene six major meetings over the next 18 months, including five thematic partnership workshops and the MENA NWC Congress in mid-2015. USAID staff are encouraged to attend.

Planned Activities for Second Quarter of Year Three

- Prepare a concept paper concerning the meetings
- Fill the new position of ME Conference Manager
- Prepare for a series of thematic partnership meetings over the next period

3. PROJECT MANAGEMENT

The period of performance for the FABRI task order is September 15, 2011 through September 29, 2015.

[REDACTED]

During this period, FABRI issued a subcontract to the California Institute of Technology for \$645,385 for a research project entitled “Radar Probing of Groundwater in Hyper-Arid Environments: Understanding Aquifer Dynamics in High Discharge Areas.” FABRI also issued Fixed Price Purchase Orders to the two Middle East Centers that will be participating in the research; the Institute of Agronomy and Veterinary Science Hassan II/R&D Maroc in Morocco and Sultan Qaboos University in Oman.

FABRI issued two Fixed Price Purchase Orders (FPPOs) to Malcolm Farley Associates to cover Mr. Farley’s time as a Non-Revenue Water Expert on FABRI’s Africa Program to assist with planning for the audit synthesis report, Performance Improvement Plan outlines, and the design of sessions for the Task Force Meeting in November 2013. The FPPOs also covered Mr. Farley’s time and travel costs for attending the Task Force Meeting in Swaziland in November 2013. FABRI signed an agreement with a DC-based law firm, Harmon, Curran, Spielberg, and Eisenberg, LLP to handle the legal registration of the MENA NWC but this subcontract will not be paid with project funds. FABRI signed a Fixed Price Purchase Order with a DC-based web design firm, Taoti Creative, to design a website for the MENA NWC.

FABRI also issued a Fixed Price Purchase Order to Anderson Consulting Associates to manage the logistics for the team planning meeting for the “Combating the Emerging Impacts of Harmful Algal Blooms on Desalination Plants: Bloom Detection, Forecasting, and Strategies for Impact Reduction” project, lead by the Middle East Desalination Research Center (MEDRC). The meeting is scheduled to take place on January 9-10, 2014 at Woods Hole Oceanographic Institute (WHOI) in Woods Hole, MA. FABRI requested and received CO approval during this quarter to issue the first six grants under the PR&D Grants Program. The grants were sent to the grantees for signature at the end of the quarter and are expected to be fully-executed early in the next quarter with many of the kick-off meetings expected to be scheduled in January and February of 2014.

FABRI is currently negotiating new subcontracts with the Middle East Desalination Research Center (MEDRC) and the Arab Countries Water Utilities Association (ACWUA) and FABRI hopes to issue subcontracts to these two organizations during the next quarter. FABRI is also currently negotiating subcontracts with Purdue University, the University of Toledo, the University of Florida, and the Stockholm Environment Institute-US, who will each serve as a U.S. partner for a research grant that will be issued under the PR&D Grants program.

FABRI is also planning to issue Blanket Purchase Agreements (BPAs) to two translation companies during the next quarter; Jan D. Gibboney Technical Translators and JR Language Translation Services, Inc; to assist with English-French translations for FABRI’s Africa and Middle East Programs. FABRI plans to request CO approval to issue several more grants under the PR&D Grants Program early in the next quarter.

4. ISSUES AND PROPOSED REMEDIES

Issue 1: The Founders Committee directive that FABRI design and convene five thematic partnership workshops and MENA NWC Congress have placed a heavy, labor intensive burden on the project.

Remedy: FABRI has secured the agreement of its COR to recruit a new full-time team member: Middle East Conference Manager.

Issue 2: Prospective grantees have been slow to submit proposals for the three small grants programs.

Remedy: FABRI will aggressively pursue ways to publicize the programs. It will also hold proposal writing workshops with Centers for the MENA NWC grants and at December and February AfWA conferences for the AfYWP grants program.

Issue 3: The Network cannot be sustainable without the infusion of additional funds, outside USAID's contribution.

Remedy: FABRI has released an RFP to procure the services of a specialized fundraising firm.

5. STANDARDS AND DELIVERABLES SUBMITTED

Requirement	Standard or Deliverable	Date of Submission to USAID
1.1	<ul style="list-style-type: none"> Acceptance letter from Sultan Qaboos University and other Centers 	During first period
1.1	<ul style="list-style-type: none"> Workshop to launch implementation of MENA NWC 	12/5-8/11
1.4	<ul style="list-style-type: none"> List of candidates for Founders Committee prepared 	2/21/12
1.4	<ul style="list-style-type: none"> CVs compiled for each candidate and shared with nominating committee 	2/21/12
2.1	<ul style="list-style-type: none"> Plan for strengthening legal and regulatory framework for IWRM in target countries 	3/14/12
2.2	<ul style="list-style-type: none"> Plan for evaluating and testing methodologies to promote efficient use of water resources 	3/14/12
3.1	<ul style="list-style-type: none"> Draft plan for strengthening capacity and performance of water and sanitation providers in AFR and MENA target countries 	8/15/12
3.2	<ul style="list-style-type: none"> Draft plan for improving operating environment for water and sanitation providers in AFR and MENA target countries 	In process
3.3	<ul style="list-style-type: none"> Draft plan for improving financial sustainability of water and sanitation sector in AFR and MENA target countries submitted within nine (9) months after award 	In process
4.1	<ul style="list-style-type: none"> Plan for conducting the identification and analysis provided within thirty 30 days after the award 	10/14/11
5.1	<ul style="list-style-type: none"> Plan for conducting the analysis provided within 30 days after award 	10/19/11
5.1	<ul style="list-style-type: none"> Assessment of transboundary water cooperation programs 	Delayed due to political turmoil
5.4	<ul style="list-style-type: none"> Pilot project design for transboundary water activity 	Delayed due to political turmoil
Section F.2(b) Deliverables	<ul style="list-style-type: none"> 90 day work plan completed within 30 days of Task Order award 	10/14/11
	<ul style="list-style-type: none"> First annual work plan completed and delivered within 60 days of task order award 	11/11/11
	<ul style="list-style-type: none"> Performance Monitoring Plan 	3/15/12
	<ul style="list-style-type: none"> FABRI Year One Annual Progress Report 	11/1/12
	<ul style="list-style-type: none"> FABRI Year Two Work Plan 	11/1/12
	<ul style="list-style-type: none"> FABRI Year Two Annual Progress Report 	10/24/13
	<ul style="list-style-type: none"> FABRI Year Three Work Plan 	10/24/13
	<ul style="list-style-type: none"> Quarterly Progress Report No. One 	1/18/12
	<ul style="list-style-type: none"> Quarterly Progress Report No. Two 	4/10/12
	<ul style="list-style-type: none"> Quarterly Progress Report No. Three 	7/15/12
	<ul style="list-style-type: none"> Quarterly Progress Report No. Four 	10/19/12
	<ul style="list-style-type: none"> Quarterly Progress Report No. Five 	1/10/13
	<ul style="list-style-type: none"> Quarterly Progress Report No. Six 	4/8/13
	<ul style="list-style-type: none"> Quarterly Progress Report No. Seven 	7/10/13
<ul style="list-style-type: none"> Quarterly Progress Report No. Eight 	10/17/13	

ANNEX 1 PROJECT DELIVERABLES SUBMITTED TO THE DEVELOPMENT EXPERIENCE CLEARINGHOUSE (DEC)

Deliverable	Date Submitted
Quarterly Progress Report No. One	12/11/12
Quarterly Progress Report No. Two	12/11/12
Quarterly Progress Report No. Three	12/11/12
Quarterly Progress Report No. Four	12/11/12
Quarterly Progress Report No. Five	3/12/13
Final Event Report - Nairobi Non-Revenue Water Conference	12/11/12
Final Event Report – FABRI/PEER Proposal Writing Workshop	12/11/12

ANNEX 2 PERFORMANCE INDICATORS

Intermediate Result (IR)	Sub IR	Indicator	ME or AFR	Standard Indicator Number	2013 Target	Final Target	Actual (Cumulative) as of December 14, 2013
I. Regional Science and Technology Capacity in Water Management Increased through Establishment of MENA NWC	1.1 MENA NWC Governance Structure Established	1.1.1 MENA NWC legally registered	ME	NA	Yes	Yes	In process
		1.1.2 Number of essential governance structures established and operative (Founders Committee, Steering Committee, Board of Directors, Secretariat)	ME	NA	3	4	2: Founders Committee, Interim Management Unit
	1.2 MENA NWC Financially Sustainable	1.2.1 Business plan developed and approved	ME	NA	Yes	Yes	Business Plan developed and submitted to Founders Committee
		1.2.2 Financial support pledged from donors, private sector, and other sources	ME	NA	\$10M	\$25M	\$72,083 from Government of Oman
		1.2.3 Number of types of pledged donors (bilateral, multilateral, foundations, corporate, government, individual) demonstrates diversity of funding sources	ME	NA	3	4	2: Government, Foundation
	1.3. MENA NWC Technical Program Addressing Critical Regional Water Issues	1.3.1 Number of technologies or management practices under research as a result of USG assistance	ME	4.5.2-39a	10	10	14: Part of provisionally awarded or likely successful proposals
		1.3.2 Number of technologies or management practices under field testing as a result of USG assistance	ME	4.5.2-39b	8	10	0
		1.3.3 Number of technologies or management practices made available for transfer as a result of USG assistance	ME	4.5.2-39c	0	4	0

Intermediate Result (IR)	Sub IR	Indicator	ME or AFR	Standard Indicator Number	2013 Target	Final Target	Actual (Cumulative) as of December 14, 2013
		1.3.4 Number of government agencies, private sector firms, and/or civil society organizations partnering with Network Centers on research and development projects	ME	NA	20	20	27 engaged in submitted proposals
		1.3.5 Number of young and women researchers engaged in MENA NWC supported research activities	ME	NA	30	40	30 on proposed research teams
		1.3.6 Number of private enterprises, producers organizations, water users associations, women's groups, trade and business associations and community-based organizations that applied new technologies or management practices as a result of USG assistance	ME	4.5.2-42	0	12	0
		1.3.7 Number of visits to the MENA NWC website	ME	NA	10,000	25,000	USAID approved website procurement
		1.3.8 Number of fans on the MENA NWC Facebook Page	ME	NA	1,000	5,000	0
	1.4 MENA NWC Strengthened through Private Sector Participation	1.4.1 Number of private sector partners participating in MENA NWC	ME	NA	12	15	3

Intermediate Result (IR)	Sub IR	Indicator	ME or AFR	Standard Indicator Number	2013 Target	Final Target	Actual (Cumulative) as of December 14, 2013
2. Integrated Water Resource Management Programming Strengthened	2.1 IWRM Legal and Regulatory Frameworks Strengthened	2.1.1 Number of government agencies, utilities, and service providers involved in IWRM research activities	ME	NA	5	8	3
	2.2 IWRM Methodologies Implemented	2.2.1 Number of private enterprises, producers organizations, water users associations, women's groups, trade and business associations and community-based organizations (CBOs) that applied new technologies or management practices as a result of USG assistance	ME	4.5.2-42	2	6	0
3. Access to Clean Water and Sanitation Expanded in Target Countries	3.1 Water and Sanitation Service Provider Performance Strengthened	3.1.1 Number of water operator partnerships facilitated	AFR	NA	6	9	In process through NRW program
		3.1.2 Number of private sector sanitation service providers that have improved management practices as a result of USG assistance	AFR	4.6.2-9	6	9	NRW program underway with audit as Stage 1
		3.1.3 Number of service providers implementing water loss programs with USG assistance	AFR	3.1.8.1-2	25	50	26
		3.1.4 Number of private sector sanitation interventions started with USG assistance	AFR	NA	8	15	0
		3.1.5 Number of visits to African water associations' newly designed websites	AFR	NA	10,000	25,000	Redesign in process

Intermediate Result (IR)	Sub IR	Indicator	ME or AFR	Standard Indicator Number	2013 Target	Final Target	Actual (Cumulative) as of December 14, 2013
		3.1.6 Number of fans of the Facebook pages of the African water associations	AFR	NA	1,000	5,000	0
	3.2 Water and Sanitation Service Operating Environment Improved	3.2.1 Number of governments developing national sanitation strategies	AFR	4.6.1-17	15	15	0
	3.3 Water and Sanitation Sector Financial Sustainability Improved	3.3.1 Number of governments developing plans to obtain outside financing for utility investments	AFR	NA	6	9	Stage 3 of NRW program
		3.3.2 Number of innovative solutions or mechanisms for mobilizing financing for non-revenue water and sanitation programs	AFR	NA	3	5	0
4. Research and Development Capacities in Irrigation, Groundwater Management, and Drought Risk Assessment and Mitigation Strengthened	4.1 Best Practices for Efficient, Productive Use of Water in Agriculture Identified.	4.1.1 Number of technologies or management practices under research as a result of USG assistance	ME	4.5.2-39a	10	10	14: part of provisionally awarded or likely successful proposals
		4.1.2 Number of technologies or management practices under field testing as a result of USG assistance	ME	4.5.2-39b	8	10	0
		4.1.3 Number of technologies or management practices made available for transfer as a result of USG assistance	ME	4.5.2-39c	0	4	0

Intermediate Result (IR)	Sub IR	Indicator	ME or AFR	Standard Indicator Number	2013 Target	Final Target	Actual (Cumulative) as of December 14, 2013
5. Transboundary Water Cooperation Strengthened in Key River Basins	5.1 Analysis of Transboundary Cooperation Identifies Model Programs and Interventions	5.1.1 Number of transboundary water resources sustainability assessments undertaken	ME	4.5.2-41e	2	2	1 by OSU
	5.2 Transboundary Pilot Project Launched	5.2.1 Number of exchanges (government-to-government, non-government-to-non-government; non-government-to-government)	ME	NA	2	4	0
6. Technical and Outreach Capacity of USAID Staff in WASH Programming Enhanced	6.1 WASH Technical and Outreach Capacity of USAID Staff Increased	6.1.1 Number of WASH training events for USAID staff	ME/AFR	NA	2	3	0
		6.1.2 Number of USAID staff trained in WASH	ME/AFR	NA	60	90	0
		6.1.3 Number of WASH guidance materials updated or developed	ME/AFR	NA	4	6	0
	6.2 USAID WASH Visibility and Outreach Increased	6.2.1 Number of conferences and outreach events facilitated or supported	ME/AFR	NA	4	6	2: AWW 2012 WWW2013