



USAID
FROM THE AMERICAN PEOPLE

FURTHER ADVANCING THE BLUE REVOLUTION INITIATIVE (FABRI)

**QUARTERLY PROGRESS REPORT NO. 4:
JUNE 15 – SEPTEMBER 14, 2012**

20 OCTOBER 2012

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

COLLABORATING ENTITIES

DAI (Prime Contractor)

Current Subcontractors

ECO Consult (Jordan)
Ecotact (Kenya)
Planet Partnerships
Malcolm Farley Associates (UK)
Oregon State University
Texas A&M University
Thornton International
Training Resources Group, Inc.
University of Nebraska
Utah State University
ValuAdd Management Services

Resource Organizations

Cardo EMG
CDR Associates
Environment and Development Group (Egypt)
Environmental Law Institute
Environmental Quality International (Egypt)
Hydro-Yemen (Yemen)
Orient Engineering (Jordan)
Riverside Technology, inc. (RTi)
SETS - Water and Environment (Lebanon)
University of California at Davis
University of Florida

FURTHER ADVANCING THE BLUE REVOLUTION INITIATIVE (FABRI)

**QUARTERLY PROGRESS REPORT NO. 4:
JUNE 15 – SEPTEMBER 14, 2012**

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.

Further Advancing the Blue Revolution Initiative Quarterly Report No. 4

USAID – DAI Contract No. AID-EPP-00-04-00023

CONTENTS

ACRONYMS	II
EXECUTIVE SUMMARY	IV
1. INTRODUCTION	7
2. PROGRESS DURING THE QUARTER	9
Result 1: Middle East and North Africa Network of Centers of Excellence Established and Operating.....	9
Result 2: Integrated Water Resources Management Programming Strengthened	12
Result 3: Access to Clean Water and Sanitation Improved in Target Countries.....	13
Result 4: Research and Development Capacities in Irrigation, Groundwater Management, and Drought Risk Assessment and Mitigation Strengthened.....	15
Result 5: Transboundary Water Cooperation Strengthened in Key River Basins	15
Result 6: Technical and Outreach Capacity of USAID Staff in Water and Sanitation Programming Enhanced	16
3. PROJECT MANAGEMENT	17
4. ISSUES AND REMEDIES	18
5. STANDARDS AND DELIVERABLES SUBMITTED	19

ACRONYMS

AfWA	African Water Association
AWW	Africa Water Week
AMCOW	African Ministers Council on Water
APS	Annual Program Statement
COTR	Contract Officers Technical Representative
CSR	Corporate Social Responsibility
EPA	Environmental Protection Agency
ETIC	Euphrates-Tigris Initiative for Cooperation
FABRI	Further Advancing the Blue Revolution
GIS	Geographical Information System
GWRI	Grand Water Research Institute, The Technion, Israel Institute of Technology
IAV	Institute of Agronomy and Veterinary Science Hassan II
ICARDA	International Centers for Agricultural Research in Dry Areas
ICBA	International Center for Biosaline Agriculture
IDA	International Desalination Association
IMU	Interim Management Unit
INRGREF	National Institute for Research in Rural Engineering, Water and Forestry
IWMI	International Water Management Institute
IWRM	Integrated Water Resources Management
JICA	Japan International Cooperation Agency
JUST	Jordan University of Science and Technology
MEDRC	Middle East Desalination Research Center
MENA NWC	Middle East and North Africa Network of Water Centers of Excellence
NASA	National Aeronautics and Space Administration
NCARE	National Center for Agricultural Research and Extension
NRW	Non-Revenue Water
NWRC	National Water Research Center
OMEP	Office of Middle East Programs
ONEP	National Office of Potable Water
ORSAM	Middle Eastern Center for Strategic Studies
PR&D	Policy, Research and Design
PWA	Palestinian Water Authority
QEERI	Qatar Environment and Energy Research Institute
QNFSP	Qatar National Food Security Program
R&D	Research and Development
RFA	Request for Applications
RSS	Royal Scientific Society
SIWI	Stockholm International Water Institute
SQU	Sultan Qaboos University
USAID	U.S. Agency for International Development
USG	United States Government
USGS	United States Geological Survey
USU	Utah State University
WASH	Water, Sanitation and Hygiene
WATSAN	Water and Sanitation
WESI	Water and Environmental Studies Center, An Najah University
WLI	Water Livelihood Initiative

YLP

Young Water Professionals

EXECUTIVE SUMMARY

The U. S. Agency for International Development's (USAID) Further Advancing the Blue Revolution Initiative (FABRI) is addressing critical water issues that are driving change in the Middle East and Africa, since water plays a key role in the political, economic and social lives of nations and people. FABRI is supporting the launching and establishment of a new regional water network called the Middle East and North Africa Network of Water Centers of Excellence (MENA NWC) to strengthen integrated water resources management programming, improve the long-term viability of water and sanitation service providers, rationalize water allocations and use, encourage collaboration among riparians in transboundary river basins, and raise USAID staff skills and Agency visibility in water and sanitation.

In June 2009, President Barack Obama delivered a speech in Cairo, Egypt, in which he stressed developing better relations with the Muslim world. He talked about the importance of developing centers of excellence in water, food security, climate change, and other disciplines. MENA NWC is a tangible outcome of that vision. Designed and launched by USAID, initially through the Advancing the Blue Revolution Initiative (ABRI) and now FABRI, the Network is addressing longstanding water issues in the region through research, policy, and outreach efforts.

Working through research partnerships, universities and research institutions in the Middle East, the Network is working on the design and implementation of research projects on water use efficiency and productivity, water and energy, non-conventional water, groundwater, and water and sanitation, in concert with governments, the private sector, and civil society organizations. Currently, 16 national research institutions and universities in Bahrain, Israel, Jordan, Morocco, Oman, Qatar, Tunisia, and West Bank/Gaza—and four international research centers in Oman, Sri Lanka, Syria, and the United Arab Emirates—are actively participating. In addition, five major U.S. research universities are current partners: the University of California at Davis, the University of Florida, the University of Nebraska, Texas A&M University, and Utah State University.

In addition to the creation of a sustainable water network in MENA, FABRI is also addressing some of Africa's most critical water issues. While Africa has some of the world's greatest river systems, much of the population suffers from limited access to clean water, hygiene and sanitation services. FABRI is supporting water and sanitation providers in Africa to improve their financial, economic, and operating efficiency by exposing them to best practices in water and sanitation service provision. One of the most critical components of the Africa program is the Non-Revenue Water initiative with the Africa Water Association (AfWA) and 26 water utility members in 19 countries across Africa

FABRI is working to strengthen water resources programming in the Middle East and in Africa. Over the life of the three year project, FABRI is building relationships with the private sector, between and among the scientific community, governments, universities, and research institutions, the private sector, and civil society. Relationship building and partnerships are crucial to the success of the project. FABRI's emphasis on uniting a geographically dispersed group of individuals and institutions working in the water sector supports USAID's commitment to strengthen regional platforms, foster transboundary water cooperation, and improve utility performance and financial viability.

Program Goals

FABRI has six primary objectives:

- **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.
- **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.
- **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 initiatives, capacity building, and communications and knowledge sharing programs.
- **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.
- **Strengthen Transboundary Water Cooperation in Key River Basins.** Through Oregon State University, FABRI is conducting an analysis of transboundary cooperation approaches and apply study findings to the Tigris-Euphrates basin. The results will be used to identify, design and implement one or two pilot projects.
- **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.

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 fourth 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

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.

Planned Activities for the Fifth Quarter:

- Initiate work on the MENA NWC business plan for USAID review.
- Facilitate engagement between private sector partners and research teams.
- Plan the first meeting of Founders Committee to be held in December 2012.

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

There were no Requirement 1.2 activities during the fourth quarter.

Requirement 1.3: Support Operations of the MENA NWC Secretariat

During the period, the FABRI COP has also served as Acting Director of the Network's Secretariat. He has been in regular and frequent communication with participating Centers. In addition, FABRI is proceeding with one key component of the Network: the five-year business plan. The business plan will set a course for the Network's financial sustainability by determining its anticipated expenditures and revenue stream. To that end, FABRI will recruit experts to assist in the plan's development.

Planned Activities for the Fifth Quarter:

- Initiation of the MENA NWC business plan.

Requirement 1.4: MENA NWC Founders Committee Established

The Founders Committee is critical to the establishment and success of MENA NWC. It will design the Network's governance and financial structures, oversee the annual budget and technical program, guide the legal registration of the Network, nominate the Board of Directors and ensure a smooth transition to the operational phase. The Founders Committee will consist of seven members with diverse skill sets, experiences and nationalities. Its composition is expected to include global/regional water experts, past or present senior government officials, private sector business entrepreneurs or executives, research institution leaders and regional association/civil society organization leaders. FABRI worked with the Nominating Committee chair to finalize the list which it sent to USAID for approval. It is waiting for a response prior to seeking agreement from the full Nominating Committee and participating Centers.

Planned Activities for the Fifth Quarter:

The final candidates will be shared with the members of the Nominating Committee and with the Centers

for no objection.

Requirement 1.5: Technical, Demonstration Activities of the Network Launched

New Communications and Outreach Efforts. FABRI initiated a new MENA NWC BULLETIN that provides regular updates on the grants program, upcoming events and visits, the Founders Committee, scientist directories, and FABRI team members. The Bulletin is distributed to Center Directors, Senior Scientists, and Research Staff of the 13 national centers and 5 international centers who are members of MENA NWC.

Issued Annual Program Statement. FABRI released the solicitation for the Policy, Research, and Development (PR&D) Grants Program on August 3, as an Annual Program Statement (APS). The APS sets the terms and conditions of the PR&D Grants Program, and establishes the proposal format and requirements, including a Technical Proposal Form and a Cost Proposal Worksheet. Under the APS, FABRI will accept proposals from August 4, 2012 to August 3, 2013. The APS requires that proposals be submitted by a consortium of at least two MENA NWC Centers from at least two countries, or one international Center and one national Center. The APS sets the maximum award for a PR&D Grant at \$750,000.

Responded to Concept Notes. In conjunction with the release of the APS, FABRI responded to all of the Concept Notes, Seed Fund requests previously submitted by the Centers. The responses were either to (1) encourage the investigators to submit a complete proposal, with suggestions for strengthening the project concept, or (2) to advise the investigator not to submit a proposal, with a short explanation. The invited proposals are summarized in Table 1 below.

Institutions	Lead Scientists	Proposal Topic
ICARDA, IAV, NWRC, USU	Aden Aw-Hassan, Tareq Bremer, Theib Oweis	Water Policies for Efficient Water Use Technologies, Improved Productivity and Better Livelihoods in the MENA Region
SQU, RSS, UJ, ONEP, Nebraska, JPL	Ali Al-Maktoumi	Managed Aquifer Recharge Using Treated Wastewater
UJ, SQU	Arwa Hamaideh, Rachael McDonnell, John Gates	Water Harvesting and Flood Management
ICARDA, NWRC, NCARE, RSS, JU, IAV, SQU	Thameur Chaibi	Innovative Technologies for Efficient Productive Use of Agricultural Water in MENA Region
ICBA, NCARE	Ian McCann	Application of near-real time soil monitoring for irrigated agricultural systems in MENA
Technion, NCARE, An Najah	Josef Hagin, Uri Shamir, et al.	Advanced wastewater treatment and wastewater reuse

Institutions	Lead Scientists	Proposal Topic
SQU	Joydeep Dutta	Biofouling-resistant nanocomposite membranes
ICBA, INRGREF, An Najah	Khalil Ahmed Ammar	Control of saline water intrusion in aquifers using treated wastewater
ICBA, SQU, INRGREF, FLA	Makram Belhaj Fraj, Ahmed Al Busaidi, Mushtaque Ahmed, Olfa Mahjoub	Maximizing the Use of Treated Wastewater in Irrigation by Year-round Crop Rotation and Conjunctive Use of Groundwater
QEERI, UJ, INRGREF, Purdue, AUB	Mohammad Khawlie, Rabi Mohtar	Modeling the food-water-energy nexus
NCARE, IAV, INRGREF, USU	Mohammed Jitan	Tools for Irrigation Water Management
JUST	Muna Ahmed Abu-Dalo	Biofouling-Resistant Nanocomposite (BRN) Membranes
UJ, NCARE, NWRC	Munir Al Rusan	Transfer Technology of Fertigation as a Tool for Increasing Water and Fertilizer Use Efficiency
ONEP, UJ	Mustapha Mahi	Appropriate Small Scale Sanitation Systems
SQU, ONEP, RSS, UJ, USGS, Nebraska, JPL	Osman Abdalla, Anvar Kacimov	Natural Groundwater Recharge and Discharge Estimates in Different Geological Settings
IWMI, ICARDA	Pay Dreschel	Enhancing Cost Recovery in Wastewater, Greywater and Fecal Sludge Management Through Safe Reuse
ICARDA, IAV, NWRC, USU	Rolf Sommer	Impact of Climate Change on On-Farm Water Use Efficiency and Crop Productivity in Egypt and Morocco – Assessment and Adaptation
IAV	Said Ouattar	Adapting water supply system to climate change

Institutions	Lead Scientists	Proposal Topic
RSS	Wael Suleiman	Sustainable Bio-Solids Management

MENA NWC Scientist Directory. FABRI compiled and delivered a MENA NWC Center Scientists Directory. The directory is a compilation of scientists potentially interested in participating in MENA NWC research projects, along with each scientist's research interests and contact information. The directory was based on information in the concept notes received, meetings at the Centers in April and May, and responses to a survey issued to the Centers.

Planned Activities for the Fifth Quarter:

- FABRI will receive proposals, convene review committees, evaluate proposals, advise Centers of award decisions, negotiate grant terms, and award grants.
- FABRI will continue to meet with teams of Centers working on proposals. The meetings will be organized by Thematic Partnership, and will help Centers prioritize proposals within each of the MENA NWC Themes (Groundwater, Non-Conventional Water, Food-Water-Energy Nexus, Water Supply and Sanitation, and Water Use Efficiency and Productivity).
- In conjunction with USAID Partnerships for Enhanced Engagement in Research (PEER), FABRI will hold a research project design and proposal writing workshop in Muscat, Oman.

Requirement 1.6: Network Strengthening through Private Sector Participation

During the last quarter, FABRI finalized the “Opportunities for Private Sector Partnership with MENA NWC” (private sector mapping) report for Jordan to send USAID for final approval.

Planned Activities for the Fifth Quarter:

- Disseminate the “Opportunities for Private Sector Partnership with MENA NWC” report to member centers.
- Initiate private sector mapping in other countries.
- Initiate work on the MENA NWC Business Plan.

RESULT 2: INTEGRATED WATER RESOURCES MANAGEMENT PROGRAMMING STRENGTHENED

FABRI will implement Result 2, Integrated Water Resources Management (IWRM) Strengthening, through MENA NWC research projects. In the fourth quarter, based on Concept Notes submitted by the Centers, FABRI solicited eight proposals focusing on IWRM. See Requirement 1.5 discussion above for the list of invited proposals.

Planned Activities for Fifth Quarter:

- FABRI expects to receive several proposals focusing on IWRM. FABRI will convene a review committee, evaluate proposals, advise Centers of award decisions, negotiate grant terms, and award grants.

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

During the fourth quarter, FABRI worked closely with both the African Water Association (AfWA), headquartered in Abidjan, Cote d'Ivoire, and with the African Ministers Council on Water (AMCOW) as a lead convener of Africa Water Week in May in Cairo.

Requirement 3.1: Strengthen the Performance of Water and Sanitation Service Providers

Non-Revenue Water Program Designed and Launched. During the fourth quarter, FABRI convened and facilitated a two related workshops to support the launching of the AfWA/USAID NRW Program. The period saw then first meeting of the NRW Task Force in Nairobi and the convening of 11 utilities that are participating in the program.

To launch the NRW Reduction program, AfWA and FABRI convened a six-day meeting for 15 east, central and southern Africa utilities in Nairobi during the week of 18 June 2012, hosted by the Nairobi City Water and Sewerage Company, Ltd. The week was designed to:

- Provide technical background on NRW to managing directors and senior technical staff in east, central, and southern Africa
- Agree on the scope and terms of reference of a utility audit
- Agree on the composition, roles, and responsibilities of the Audit Team
- Design a draft schedule of audit visits and teams for utilities

The focus of each day during the week was the following:

- *18 June:* Final preparation for the week – Organizers and presenters met to review and finalize the agenda for the 3-day workshop.
- *19 June:* Start-up planning meeting for the AfWA STC NRW Task Force – The 14-member NRW Task Force met for the first time to clarify roles and responsibilities and define their scope of work to support the implementation of the NRW program.
- *20-22 June:* A three-day workshop to launch the NRW diagnostic phase.
- *23 June:* After action review – The core Task Force members met to assess the results of the workshop, highlight the results of the week, and plan for next steps, including the audit visits and the next workshop.

NRW Task Force Start-Up Meeting. On 19 June 2012, thirteen members of the newly formed AfWA Scientific and Technical Council's (STC) NRW Task Force met in Nairobi to 1) clarify the Task Force purpose, roles and responsibilities; 2) draft terms of reference and agree on operating procedures for the Task Force; and 3) clarify roles during the three day NRW workshops (East Africa and West Africa sessions). Sylvain Usher, Secretary General of AfWA, and Peter Reiss, FABRI Project Director, co-chaired the meeting. Kathy Alison, FABRI, facilitated the meeting. Malcolm Farley, water loss management and leakage control specialist, was a major technical resource and who had designed and later led many of the sessions over the coming days. The co-chairs briefed the Task Force members on the new AfWA and USAID FABRI Non-Revenue Water Program. Task Force members worked in small teams to define their Terms of Reference (TOR) and a representative from each group compiled a TOR that was then presented to the entire Task Force. The group also discussed the details of the audit visits that will take place during the Diagnostic Phase.

Phase 1 Diagnostic Workshop with Utility Representatives. Forty-three utility managers and senior technical staff from 15 water utilities in 13 east, central, and southern Africa participated in the three-day Diagnostic Phase Workshop. Senior representatives from AfWA, the African Ministers Council on Water (AMCOW), the Arab Countries Water Utilities Association (ACWUA), the Global Water Operators Partnerships Alliance (GWOP) and several representatives from the Africa Young Water Professionals Program also participated in the sessions.

The workshop provided an opportunity for representatives from participating utilities to review and discuss:

- Non-Revenue Water (NRW) Reduction Program objectives, expectations, approach, and their roles and responsibilities
- Role of the AfWA Scientific and Technical Council NRW Task Force in implementing the program
- NRW Reduction Management Techniques and Analytical Tools
- Phase 1 utility diagnostic plan, including schedule for audit visits to utilities

Following this successful workshop, the AfWA Task Force, joined by two FABRI-supplied experts, conducted audits of two utilities in Kenya: the Kisumu Water and Sewerage Company and the Nairobi City Water and Sewerage Company. They will serve as a model for other utility audits to be conducted from November 2012 through March 2013.

AfWA Draft Business Planning Underway. Following the convening a two-day AfWA Executive Board Meeting work session in Cairo in June, the lead consultant to FABRI meet with the Board again in Durbin in August to review progress on the plan. . The expected outcome of this activity will be the development of a five-year strategic business plan. The effort is being led by Philip Giantris of Valu Add.

Communications Requirements Identified. During the period, FABRI worked with AfWA to design a three-day meeting of directors of communication in about a dozen utilities to help develop a communications and knowledge sharing (CKS) plan. The plan will be the basis for AfWA to create a CKS Task Force, hire new dedicated staff, and develop tools.

Planned Activities for the Fifth Quarter:

- Conduct the three-day Non-Revenue Water Reduction Program in Africa: Phase 1 Diagnostic Workshop for East Africa utility partners.
- Conduct additional water utility audits throughout the Continent
- Complete the final draft of the business plan for Executive Board review
- Meet with the Board during the quarterly STC meetings in Conakry. Guinea in November to complete and submit the final, approved business plan
- Design and deliver a two to three day AfWA communications planning workshop with member utilities' communications staff. Objective of the meeting is to develop a strategic plan for how AfWA can better support member utilities in their outreach and communications programs.

Requirement 3.2: Improve the Operating Environment for Water and Sanitation Service Providers

USAID is continuing working with donors to determine the appropriate focus of the effort in sanitation.

Planned Activities for the Fifth Quarter:

- Determine the shape of the program in agreement with USAID.

Requirement 3.3: Improve the Financial Sustainability of the Water and Sanitation Sector

FABRI will strengthen the financial sustainability of water utilities through the development of performance improvement plans to reduce physical and commercial losses and the preparation of investment plans for utilities that enable them to raise funds for capital improvements. Due to the overwhelmingly positive response from the business planning exercise with AfWA, FABRI has decided to extend this work to the participating utilities and to relate business planning to overall investment needs. In addition, FABRI will design a financial non-revenue water diagnostic tool to complement the on-going utility audits.

Planned Activities for Fifth Quarter:

- Submit Standard 3.3 Plan for Improving Financial Sustainability of the Water and Sanitation Sector in AFR and MENA Target Countries.
- Design a financial NRW diagnostic tool to complement the utility audits.

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. In the fourth quarter, based on Concept Notes submitted by the Centers, FABRI solicited eleven proposals focusing on irrigation, groundwater management, and drought risk assessment and mitigation. See Requirement 1.5 discussion above for the list of invited proposals.

Planned Activities for Fifth Quarter:

- FABRI expects to receive several proposals focusing on irrigation, groundwater management, and drought risk assessment and mitigation. FABRI will convene a review committee, evaluate proposals, advise Centers of award decisions, negotiate grant terms, and award grants.

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

During the third quarter, FABRI developed a scope of work for an assessment of regional transboundary water cooperation programs that will be conducted by Oregon State University's Program in Water Conflict Management and Cooperation led by Prof. Aaron Wolf. The Program houses the Transboundary Freshwater Dispute Database (TFDD), the largest collection of information on transboundary conflict and

cooperation in the world. Faculty at OSU have extensive experience in culling the world's experience in cooperating across international boundaries for focused analytic studies.

FABRI's transboundary efforts begin with a careful analysis of U.S. and regional transboundary programs and interventions to reveal which ones made the greatest contribution to promoting effective transboundary cooperation. This assessment will:

- Provide a focal point for valuable conversations among riparians and donors about the extent and nature of transboundary cooperation;
- Identify key parties and approaches;
- Inform and guide the design of a pilot project in the Tigris-Euphrates basin under Requirement 5.5; and
- Confirm USAID's commitment to foster collaboration and reduce water conflicts in transboundary contexts in the Middle East.

The Program in Water Conflict Management and Cooperation at Oregon State University is now carrying out the assessment. The Program houses the Transboundary Freshwater Dispute Database (TFDD), the largest collection of information on transboundary conflict and cooperation in the world. Faculty at OSU have extensive experience in culling the world's experience in cooperating across international boundaries for focused analytic studies.

OSU's Program in Water Conflict Management and Cooperation, under direct supervision of the FABRI chief of party and with the support of regional experts, is now preparing a report that assesses the recent history of collaborative transboundary water projects to determine those that provide the most appropriate lessons for the current situation on the Tigris-Euphrates basin. Those lessons will in turn inform the design of a pilot project (Requirement 5.5).

Planned Activities for Fifth Quarter:

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

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

FABRI proposed a side session at the August 2012 World Water Week in Stockholm. The session was accepted by the Stockholm International Water Institute. In consultation with USAID, FABRI informed SIWI that it would be able to carry out the session. Instead, we intend to be quite active in WWW 2013.

Planned Activities for Fifth Quarter:

- No activities are planned.

3. PROJECT MANAGEMENT

The period of performance for the FABRI task order is September 15, 2011 through September 29, 2014. FABRI has received \$18,474,837 in obligated funds (\$14,154,837 from the Middle East Bureau and \$4,320,000 from the Africa Bureau). This constitutes 92% of the \$20,000,000 contract ceiling. FABRI has spent \$2,346,198.48 as of September 30, 2012, which represents approximately 12.7% of the current obligation.

During this period FABRI has continued to ramp up its technical and administrative capacity. The new FABRI Project Coordinator, Julie Carp, began working on September 10, 2012. Kathy Alison, from subcontractor TRG, has replaced Stacy Whittle as the full-time Information Management Specialist on FABRI. FABRI also hired Said Ouattar as an independent consultant to serve as a Senior Water Expert on the program based out of Morocco. FABRI recruited Hawa Meskinyar as the FABRI Activity Manager for Africa programs and Hawa will begin work on October 1, 2012. In addition, FABRI is currently recruiting for one additional Activity Manager to support the Middle East program.

Also in this period, FABRI issued a purchase order to Malcolm Farley Associates for Malcolm Farley to lead sessions at the Non-Revenue Water Task Force Meeting and the Non-Revenue Water Program Planning Launch Meeting in Nairobi in June. Mr. Farley will also attend the second Non-Revenue Water Meeting in Ouagadougou in October. FABRI also issued a purchase order to Thornton International for Julian Thornton to conduct two water utility audits in Nairobi and Kisumu, Kenya and to attend the Non-Revenue Water Meeting in Ouagadougou. FABRI issued an IQC subcontract to the University of Nebraska- Lincoln.

In the coming period, FABRI plans to issue IQC subcontracts to the University of Florida and UC/Davis. FABRI plans to hire Malcolm Farley, Julian Thornton, and additional consultants to conduct water utility audits throughout Africa. FABRI plans to issue a new task order to Valu Add and an independent consultant agreement to Shawki Bargouti for work on the MENA NWC business plan. FABRI plans to extend the subcontract with Utah State University for a second year and to issue an 18-month grant to AMCOW.

4. ISSUES AND REMEDIES

Issue 1: Project requires more management and administrative support to implement its complex and demanding programs in the Middle East and Africa.

Remedy: FABRI has created two new positions to support program implementation: Africa and Middle East Activity Managers. The Africa Activity Manager started on 1 October. The Middle East Activity Manager will begin on 19 November.

Issue 2: The five U.S. universities have requested funding to support graduate student involvement on research projects.

Remedy: USAID has agreed to the request. FABRI will support the involvement of U.S. university faculty and a graduate student as appropriate. In addition, USAID has agreed to fund graduate students from the participating Centers, as requested and appropriate for the proposed research.

Issue 3: USAID has raised questions about funding MENA NWC as a new entity and supporting Founders Committee activities, such as the hiring the lawyer for the legalization process.

Remedy: Project management met twice with USAID lawyers the General Counsel Office. After consultations, they decided that USAID and State Department representatives on the Founders Committee and Board of Directors require waivers indicating no conflict of interest. Also, they determined that FABRI may use its funding for the legalization process and for committee meetings to structure and launch the Network.

5. STANDARDS AND DELIVERABLES SUBMITTED

Requirement	Standard or Deliverable	Date of Submission
1.1	<ul style="list-style-type: none"> Acceptance letter from Sultan Qaboos University and other Centers 	1/19/12 etc.
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 	In process
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"> Quarterly Progress Reports: first, second, third, and fourth quarters 	On schedule