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FURTHER ADVANCING THE BLUE REVOLUTION INITIATIVE (FABRI)

**QUARTERLY PROGRESS REPORT NO. 5:
SEPTEMBER 15 – DECEMBER 15, 2012**

10 JANUARY 2013

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

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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.

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ACRONYMS

ABRI	Advancing the Blue Revolution Initiative
ACWUA	Arab Countries Water Utilities Association
AFR	Africa
AfWA	African Water Association
AWW	Africa Water Week
AMCOW	African Ministers' Council on Water
APS	Annual Program Statement
AYWP	Africa Young Water Professionals
CKS	Communications and Knowledge Sharing
COP	Chief of Party
COR	Contracting Officer's Representative
CSR	Corporate Social Responsibility
EPA	Environmental Protection Agency
ETIC	Euphrates-Tigris Initiative for Cooperation
FABRI	Further Advancing the Blue Revolution Initiative
GIS	Geographical Information System
GWOP	Global Water Operators Partnerships Alliance
GWRI	Grand Water Research Institute
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
IQC	Indefinite Quantity Contract
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
OMEF	Office of Middle East Programs
ONEP	National Office of Potable Water
ORSAM	Middle Eastern Center for Strategic Studies
PEER	Partnerships for Enhanced Engagement in Research
PR&D	Policy, Research and Development
PWA	Palestinian Water Authority
QEERI	Qatar Environment and Energy Research Institute
QNFSF	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
STC	Scientific and Technical Council
TFDD	Transboundary Freshwater Dispute Database
TOR	Terms of Reference
TRG	Training Resources Group, Inc.
USAID	United States 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
WLI	Water Livelihood Initiative
YWP	Young Water Professionals

EXECUTIVE SUMMARY

The Fifth 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 supported the operations of the MENA NWC Secretariat with the FABRI COP serving as Acting Director of the Network's Secretariat and also working on the five-year business plan, which will set the course for MENA NWC's financial sustainability. (Req1.3) FABRI also held a research project design and proposal writing workshop in Muscat, continued tracking research proposal development, accepted one proposal and also met with research teams to support proposal development. The private sector mapping report, Opportunities for Private Sector Partnership with MENA NWC, for Jordan was completed and submitted to USAID.

Result 2: Integrated Water Resources Management Programming Strengthened. FABRI tracked and received proposals relating to IWRM. The University of Jordan submitted a proposal titled "Guidelines for Artificial Groundwater Recharge Using Flood Farming." Seven other research teams were preparing or planning proposals relating to IWRM. FABRI expects several of these teams to submit proposals early in the sixth quarter.

Result 3: Access to Clean Water and Sanitation Improved in Target Countries. FABRI convened and facilitated the second NRW workshop in Ouagadougou, Burkina Faso. During the last week of the quarter, utility audits were conducted of SWSC in Swaziland and CDE in Cameroon. FABRI designed and delivered a three day AfWA communications planning workshop with member utilities' communications staff in Conakry, Guinea. Additionally, FABRI sponsored 10 young water professionals to attend the Second Young Water Professionals Conference in Kigali, Rwanda in December.

Result 4: Research and Development Capacities in Irrigation, Groundwater Management, and Drought Risk Assessment and Mitigation Strengthened. FABRI tracked and received proposals relating to irrigation, groundwater management, and drought risk assessment and mitigation. As indicated above for Result 2, the University of Jordan submitted a proposal on artificial groundwater recharge. Seven other research teams were preparing or planning proposals relating to irrigation, groundwater management, and drought risk assessment and mitigation. FABRI expects several of these teams to submit proposals early in the sixth quarter.

Result 5: Transboundary Water Cooperation Strengthened in Key River Basins. The Water Conflict Management Program at Oregon State University is preparing a report on transboundary water cooperation worldwide. Ten cases reveal how parties worked collaboratively to address international water disputes under a project umbrella. The report indicates the limits of the successful efforts and how they might be used to design a project under FABRI in the Tigris-Euphrates basin. The report will be completed in the next period.

Result 6: Technical and Outreach Capacity of USAID Staff in Water and Sanitation Programming Enhanced. In consultation with USAID, FABRI informed the Stockholm International Water Institute (SIWI) that it would not be able to carry out the session at World Water Week (WWW). Instead, we intend to be quite active in WWW 2013.

Project Management

During the fifth quarter, USAID contract modification number 4 increased the total obligation to \$18,474,836.77. The FABRI team increased in size to seven full-time members with the addition of the African Activity Manager and the Middle East Activity Manager.

Issues and Remedies

FABRI faced two major issues during the period that it was able to resolve: the need for more management and administrative support to implement its complex and demanding programs in the Middle East and Africa and identifying cost-effective and timely ways to distribute funds to cover travel costs for AfWA Non-Revenue Water Task Force members who are staff of water utilities across Africa. 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 started on 17 December. Project management, the Chief of Party and the Operations Manager, called an internal meeting at DAI and agreed to set up vendor accounts for every NRW Task Force member, so that FABRI can wire the travel funds to them directly in advance of their participation on utility audits.

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 fifth 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 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 apply study findings to the Tigris-Euphrates basin. The results will be used to identify, design and implement one or two pilot projects.
- **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 of Endowment to Help Ensure the Sustainability of the Network

There were no Requirement 1.2 activities conducted during the sixth quarter, as FABRI is waiting for USAID approval to proceed with the Founders Committee planning.

Requirement 1.3: Support Operations of the MENA NWC Secretariat

During the period, 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 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 Sixth Quarter:

- Initiation of the MENA NWC business plan with a team planning meeting scheduled for early January
- Subcontracting for team member technical assistance
- Visits to participating Centers in the region
- Development of the business plan in draft
- Revision of the MENA NWC vision and mission statement
- Identification of business plan strategic objectives
- Preparation for Founders Committee meeting and preparation/presentation of a status report

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/ME for approval.

Planned Activities for the Sixth Quarter:

- Approval of plans for the Founders Committee and membership by USAID
- Informing Nominating Committee members and Centers for no-objection as agreed to in December 2011 Muscat meeting
- Preparation of a briefing book for committee members
- Convening the first Founders Committee meeting in Washington DC in early March

Requirement 1.5: Technical, Demonstration Activities of the Network Launched

Presented a Research Project Design and Proposal Writing Workshop. In conjunction with USAID Partnerships for Enhanced Engagement in Research (PEER), FABRI held a research project design and proposal writing workshop at MEDRC in Muscat, Oman on October 7-9, 2012. The workshop included 35 participants from 29 institutions in 12 countries. The goals for the workshop were to increase scientists' planning and grant writing skills, particularly in water and environmental research; help scientists become more competitive for local and international sources of research funding; and facilitate networking among scientists. The workshop included a combination of interactive plenary sessions and participatory small working groups to facilitate the real-life application of workshop concepts on PEER or FABRI proposals. Within FABRI and PEER subgroups, the participants shared work outputs and received instructive feedback. The training team served as mentoring resources in the application and feedback process.

Tracked Research Proposal Development. FABRI corresponded with the lead investigators on each research team to monitor progress on proposals under the Annual Program Statement (APS) for the MENA NWC Policy, Research, and Development (PR&D) Grants Program. As of December 14, 2012, at least fifteen teams were preparing or planning proposals. Eight proposals relating to the Food-Energy-Water Nexus, Non-Conventional Water, and Water Supply and Sanitation Thematic Partnerships are summarized in the table below. Proposals relating to Integrated Water Resources Management are presented in Result 2, and proposals relating to Irrigation, Groundwater Management, and Drought Risk Assessment and Mitigation are presented in Result 4.

FABRI expects about ten teams total to submit proposals early in the sixth quarter, including Results 2 and 4.

Proposals Relating to Water-Food-Energy Nexus, Water Supply and Sanitation, and Non-Conventional Water

PROPOSAL TOPIC	PARTICIPATING CENTERS	EXTERNAL PARTNERS
Proposals in Progress		
<i>Water-Food-Energy Nexus</i>		
Water, Energy, and Food Nexus: a Basis For Strategic Planning for Natural Resources Sustainability-Challenges for Application in the MENA Region	QEERI INRGREF UJ	Purdue University; American University of Beirut
<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
Adapting Water Supply System to Climate Change	IAV INRGREF	CNRST (Morocco)
Developing and Applying NRW Reduction Decision Support Criteria and Tools	ACWUA UJ	
<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 Holding Company for Water and Wastewater (Cairo)

PROPOSAL TOPIC	PARTICIPATING CENTERS	EXTERNAL PARTNERS
Use of Green Nanoparticles as a Biofouling- Resistant Agent in Reverse Osmosis Desalination	JUST ONEE	University of Rhode Island University of Toledo-Ohio George W. Woodruff School of Mechanical Engineering

Accepted Proposals. FABRI received the first proposal submitted for the PR&D Grants Program. The proposal, “GARFF: Guidelines for Artificial Groundwater Recharge Using Flood Farming,” was submitted by the University of Jordan, with ICBA as a MENA NWC partner, and the University of Nebraska as an external partner.

Met with Research Teams to Support Proposal Development. FABRI COP Peter Reiss met with research teams in Morocco and Tunisia in November. In Morocco, a research team led by ONEE with IAV, and RSs is preparing a proposal on decentralized sanitation. In Tunisia, a team of INRGREF, IAV, and NCARE is preparing a proposal on “Technology Development for Improved Water Use Efficiency in Small and Large Scale Basins.” During the meetings, the research teams developed the technical proposals and decided roles for each participating Center. The COP provided guidance on strengthening the project and proposal.

Planned Activities for the Sixth 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. FABRI Grants Manager Ken Ludwa will tentatively meet with proposal teams in Qatar, Oman, and United Arab Emirates in late January or early February 2013.

Requirement 1.6: Network Strengthening Through Private Sector Participation

During this quarter, FABRI finalized the “Opportunities for Private Sector Partnership with MENA NWC” (private sector mapping) report for Jordan and received USAID’s final approval on the report.

As the member Centers progressed in preparing their proposals for the research grants, FABRI provided technical assistance in identifying partnerships with the private sector. FABRI’s Private Sector Investment Specialist participated in proposal development meetings in Morocco and Tunisia and provided technical support and assistance to research Centers in proposal development and private sector participation.

Planned Activities for the Sixth Quarter:

- Disseminate the “Opportunities for Private Sector Partnership with MENA NWC” report to member Centers.
- Initiate private sector mapping in Morocco.
- Initiate work on the MENA NWC Business Plan.
- Finalize a brochure on the partnership approach for MENA NWC.

RESULT 2: INTEGRATED WATER RESOURCES MANAGEMENT PROGRAMMING STRENGTHENED

FABRI will implement Result 2, Integrated Water Resources Management (IWRM) Strengthening, through MENA NWC research projects. As described in the results for Requirement 1.5, FABRI tracked research teams' proposal progress during the fifth quarter. Two research teams were preparing or planning proposals relating to IWRM (see table below). FABRI expects several of these teams to submit proposals early in the sixth quarter.

Proposals Relating to Integrated Water Resources Management (IWRM)

PROPOSAL TOPIC	PARTICIPATING CENTERS	EXTERNAL PARTNERS
Proposals In Progress		
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 Eawig
Maximizing the Use of Treated Wastewater in Irrigation by Year-round Crop Rotation and Conjunctive Use of Groundwater	SQU INRGREF UJ	University of Florida

Planned Activities for Sixth 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 fifth quarter, FABRI worked closely with the African Water Association (AfWA) and the National Office for Water and Sanitation (ONEA) as a lead convener of the second NRW Workshop, which was held in Ouagadougou, Burkina Faso from October 29 to November 3, 2012.

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

Non-Revenue Water Program

FABRI convened and facilitated the second NRW workshop in Burkina Faso. Hosted by ONEA, the workshop brought together 54 managers and senior technical staff (including 12 NRW Task Force members). Participants represented 17 water utilities in 15 African countries. Representatives from USAID, SUWASA, JICA, GWOPA, AMCOW, ONEE, AfWA and FABRI also participated in this workshop, for a total of 65 participants.



NRW Workshop participants, Ouagadougou, Burkina Faso, October 31-November 2, 2012

The workshop 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 and outcome of each of the three segments during the week is listed below.

1) NRW Task Force Start-Up Meeting - During the NRW Task Force Start-Up meeting, October 29 and 30, 2012, twelve members of the newly formed AfWA NRW Task Force accomplished the following:

- Defined the Phase 1 Diagnostic Process
- Drafted the Audit Report Format
- Reviewed the basic steps of the audit and estimated the amount of time needed to plan for, conduct and write the report for each audit.
- Agreed on a new audit team training program that includes two 7-day training sessions (one in English / one in French) that will provide hands-on experience in conducting water utility audits and writing of the audit reports.
- Agreed that Task Force members would take the lead in conducting the audits for the remaining utilities after the audit training sessions in early 2013. External consultants would be available to support the planning for the audits and review the results of the audits on an as-needed basis.
- Agreed that the audit team would include recommendations and an action plan in the audit report. The utility would then use the recommendations and action plan to develop a performance improvement plan (PIP) following the audit. Task Force members and other resources would be available to support the development of the PIP.
- Identified resources and backing that FABRI and others can provide to support each utility's efforts to develop and implement the PIP
- Clarified the roles of AfWA and FABRI in scheduling, travel arrangements, and payment of per diem for the audits
- Tentatively scheduled the next Task Force meeting to be held in March in Accra to review the process, progress and results of the initial audits.

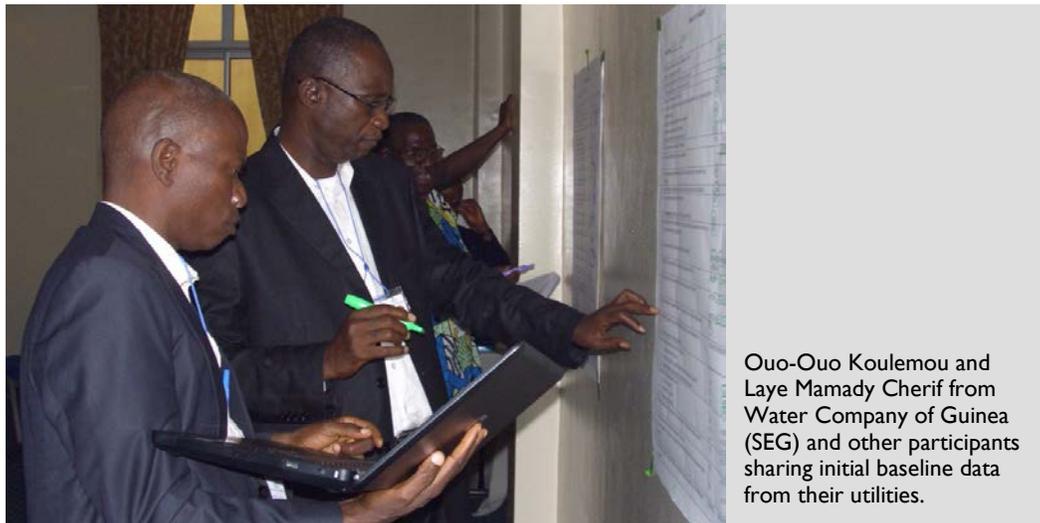


Dieudonne Sawadogo, ONEA Secretary General, during Start-Up meeting

2) Phase 1 Diagnostic Workshop with Utility Representatives - Fifty four utility managers and senior technical staff from 17 water utilities in 15 east, central, and southern Africa participated in the three-day Diagnostic Phase Workshop, from October 31 to November 2, 2012. The workshop provided an opportunity for representatives from participating utilities to:

- Review and discuss the key elements of Non-Revenue Water Management
- Share their current programs and experiences in dealing with NRW
- Share initial baseline data from their own utilities

- Use the water balance easy calc tool to practice estimating a water balance
- Discuss the audit process steps and the products that will be developed during the audit
- Discuss the results of the initial two audits conducted in Kisumu and Nairobi, Kenya in September and identify lessons learned
- Develop specific and detailed action plans for the upcoming audit visits to their utilities
- Explore approaches and technologies that may be appropriate for dealing with water losses that are identified during the audits



3) After Action Review - The core Task Force members met to assess the results of the workshop, highlight the results of the week, plan for next steps, schedule upcoming audit visits, discuss details for Swaziland and Cameroon audits, and the 7-day audit training workshops in Uganda and Senegal.

AfWA Business Plan

FABRI, in the person of Philip Giantris of Valu Add, presented the draft AfWA business plan to the Scientific and Technical Council at its meeting in Conakry, Guinea in November. FABRI was allocated a full day to present the plan which receive many comments to stimulate a revision. The Secretary General of AfWA also presented the plan to the Executive Board for review. The board provided verbal comments in the meeting and written comments later to FABRI, as follow-up to revise the plan.

Communications and Knowledge Sharing

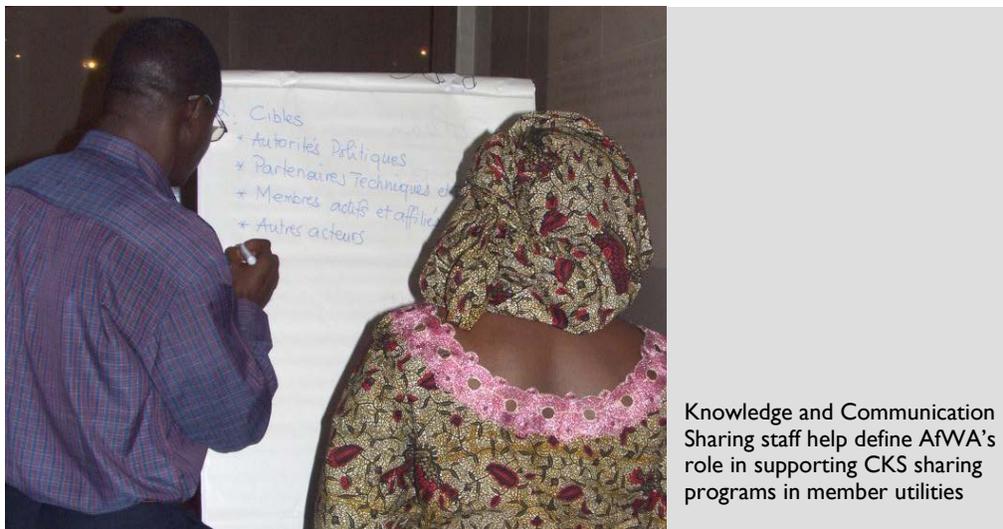
FABRI designed and delivered a three day AfWA communications planning workshop with member utilities' communications staff in Conakry, Guinea November 5-7, 2012. The purpose of the meeting was to work with communications directors and knowledge managers of water and sanitation utilities to determine how AfWA can develop and institutionalize Communications and Knowledge Sharing (CKS) programs to improve performance. The plan will be the basis for AfWA to create a CKS Task Force, hire new dedicated staff, and develop tools.

Specific meeting objectives include:

- Share CKS best practices being implemented by utilities that could be applied to AfWA and other utilities
- Define AfWA's role in supporting CKS programs in member utilities
- Identify one to two CKS initiatives that could be led by AfWA to support member utilities in the short term
- Develop a plan that can be integrated into AfWA's Business Plan

Expected results from the meeting include:

- An AfWA CKS strategy that includes:
 - A description of AfWA's role in developing CKS programs that would enhance member utility performance as well as outreach to their customers
 - Draft job descriptions for AfWA CKS staff who would implement the AfWA CKS Program
- Specific next steps for implementing initiatives outlined in the new AfWA CKS strategy
- A better understanding of how CKS programs can enhance the performance of AfWA and its utility members.
- Formation of a CKS Task Force to guide and support the implementation of the CKS strategy. The Task Force would meet during regularly scheduled Scientific and Technical Council meetings.



Young Water Professionals Conference, Kigali, Rwanda

The FABRI Chief of Party was joined by the AfWA Secretary General, Sylvain Usher, and the President of the AfWA STC, Silver Mugisha of Uganda NWSC to present the draft Annual Program Statement for the Africa Young Water Professionals Small Grants Program under the project. They presented the grants program framework to participants on day one of the meeting. On day two, they organized a half day session that focused on how to organize national YWP chapters in countries still unrepresented. More than 200 participants attend, nearly all YWPs themselves.

Planned Activities for the Sixth Quarter:

- Design and deliver two seven-day training sessions (one in English, one in French) that will provide hands-on experience in conducting water utility audits and writing of the audit reports.
- Conduct additional water utility audits throughout the continent
- Publish NRW E-Newsletter
- Complete the final draft of the business plan for AfWA, financial forecast and revenue streams for presentation at the next STC and Executive Board meeting in Tanzania in March 2013.
- Complete, get USAID approval for, and release the Annual Program Statement for the AYWP Grants Program.

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

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

Planned Activities for the Sixth Quarter:

- Determine the design 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 Sixth 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. As described in the results for Requirement 1.5, FABRI tracked research teams' proposal progress during the fifth quarter. FABRI received one proposal relating to groundwater management, and six other research teams were preparing or planning proposals relating to irrigation, groundwater management, and drought risk assessment and mitigation. FABRI expects several of these teams to submit proposals early in the sixth quarter.

Proposals Relating to Irrigation, Groundwater Management, and Drought Risk Assessment and Mitigation

PROPOSAL TOPIC	PARTICIPATING CENTERS	EXTERNAL PARTNERS
Submitted Proposals		
Guidelines for Artificial Groundwater Recharge Using Flood Farming	UJ ICBA	UNL
Proposals in Progress		
Halting Uncontrolled Agricultural Practices to Secure Groundwater Quality, the Case of Faria Catchment, Palestine	An Najah UJ	USU
Managed Aquifer Recharge Using Treated Wastewater	SQU UJ ONEE	UNL JPL
Improved, Efficient and Environmentally Friendly Water Supply for Agricultural Irrigation Based on Reclaimed Wastewater	Technion NCARE An Najah	Al Quds University, Ministry of Agriculture Extension Service (Israel)
Application of Near-Real Time Soil Monitoring for Irrigated Agricultural Systems in MENA	ICBA INRGREF SQU	Jordan office of ICT
Technology Development for Improved Water Use Efficiency in Small and Large Scale Basins	INRGREF NCARE	
Water Policies for Efficient Water Use Technologies, Improved Productivity and Better Livelihoods in the MENA Region	ICARDA INRGREF RSS	UC/Davis

Planned Activities for Sixth 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 fifth quarter, Oregon State University's Program in Water Conflict Management and Cooperation led by Prof. Aaron Wolf prepared the first 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. 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 Sixth Quarter:

- Finalize the final report from Oregon State University for submission to USAID and for 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 (SIWI). In consultation with USAID, FABRI informed SIWI that it would not be able to carry out the session. Instead, we intend to be quite active in WWW 2013.

Planned Activities for Sixth Quarter:

- No activities are planned.

3. PROJECT MANAGEMENT



During this period FABRI has continued to ramp up its technical and administrative capacity. Hawa Meskinyar, the new FABRI Africa Activity Manager, began working full-time for the project on October 1, 2012. Christel Milazzo, the new FABRI Middle East Activity Manager, began working full-time for the project on December 17, 2012. With the start of Christel Milazzo, the FABRI core team is now complete with seven full-time staff members. On November 28-29, 2012 all seven full-time FABRI team members attended a two day off-site Team Planning Meeting at TRG's offices in Arlington, VA. During this meeting, the team discussed roles and responsibilities and the ambitious FABRI work plan for the coming year.

During this period, FABRI issued three new task orders to the Training Resources Group, Inc (TRG). TRG Task Order #4 was issued for Jawara Lumumba to facilitate the FABRI/PEER Workshop held in Muscat, Oman in October 2012. TRG Task Order #5 was issued for Steve Joyce to facilitate the two day off-site Team Planning Meeting for the FABRI team in November 2012. TRG Task Order #6 was issued to cover Kathy Alison's time on the FABRI Africa Program in 2013. Also in this period, FABRI issued a purchase order (PO) to Malcolm Farley Associates for Malcolm Farley to participate in the water utility audit in Douala, Cameroon in December. FABRI also issued an IQC subcontract to the University of Florida and an independent consultant agreement (ICA) to Shawki Barghouti.

In the coming period, FABRI plans to issue an IQC subcontract to UC/Davis. FABRI plans to issue a new task order to Valu Add for work on the MENA NWC business plan. FABRI also plans to extend the subcontract with Utah State University for a second year and to issue an 18-month institutional strengthening 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 started on 17 December.

Issue 2: FABRI must distribute funds to cover travel costs for AfWA Non-Revenue Water Task Force members who are staff of water utilities across Africa. Getting the funds to them in a cost-effective and timely way has been a continuing problem.

Remedy: Project management, the Chief of Party and the Operations Manager, called an internal meeting at DAI to determine more effective ways to deal with this problem. The meeting included director of cash management, the director of accounts payable, and the operations specialist on the project financial management team. The outcome of the meeting was a decision to set up vendor accounts for every NRW Task Force member, so that FABRI can wire the travel funds to them directly in advance of their participation on utility audits.

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"> 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	

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
Final Event Report - Nairobi Non-Revenue Water Conference	12/11/12
Final Event Report - PEER Proposal Writing Workshop	12/11/12

ANNEX 2: PERFORMANCE INDICATORS

INTERMEDIATE RESULT (IR)	SUB IR	INDICATOR	ME OR AFR	STANDARD INDICATOR NUMBER	2012 TARGET	ACTUAL (CUMULATIVE) AS OF DECEMBER 14, 2012
1. 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	no	no
		1.1.2 Number of essential governance structures established and operative (Founders Committee, Steering Committee, Board of Directors, Secretariat)	ME	NA	2	In process
	1.2 MENA NWC Financially Sustainable	1.2.1 Business plan developed and approved	ME	NA	yes	In process
		1.2.2 Financial support pledged from donors, private sector, and other sources	ME	NA	\$5M	\$0
		1.2.3 Number of types of pledged donors (bilateral, multilateral, foundations, corporate, individual) demonstrates diversity of funding sources	ME	NA	2	0
	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	4	0
		1.3.2 Number of technologies or management practices under field testing as a result of USG assistance	ME	4.5.2-39b	0	0

INTERMEDIATE RESULT (IR)	SUB IR	INDICATOR	ME OR AFR	STANDARD INDICATOR NUMBER	2012 TARGET	ACTUAL (CUMULATIVE) AS OF DECEMBER 14, 2012
		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	0
		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	10	5
		1.3.5 Number of young and women researchers engaged in MENA NWC supported research activities	ME	NA	20	18
		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	0
		1.3.7 Number of visits to the MENA NWC website	ME	NA	0	0
		1.3.8 Number of fans on the MENA NWC Facebook Page	ME	NA	0	0

INTERMEDIATE RESULT (IR)	SUB IR	INDICATOR	ME OR AFR	STANDARD INDICATOR NUMBER	2012 TARGET	ACTUAL (CUMULATIVE) AS OF DECEMBER 14, 2012
	1.4 MENA NWC Strengthened through Private Sector Participation	1.4.1 Number of private sector partners participating in MENA NWC	ME	NA	7	3
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	3	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	0	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	3	0
		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	3	0
		3.1.3 Number of service providers implementing water loss programs with USG assistance	AFR	3.1.8.1-2	12	18

INTERMEDIATE RESULT (IR)	SUB IR	INDICATOR	ME OR AFR	STANDARD INDICATOR NUMBER	2012 TARGET	ACTUAL (CUMULATIVE) AS OF DECEMBER 14, 2012
		3.1.4 Number of private sector sanitation interventions started with USG assistance	AFR	NA	3	0
		3.1.5 Number of visits to African water associations' newly designed websites	AFR	NA	0	0
		3.1.6 Number of fans of the Facebook pages of the African water associations	AFR	NA	0	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	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	0	0
		3.3.2 Number of innovative solutions or mechanisms for mobilizing financing for non-revenue water and sanitation programs	AFR	NA	0	0
4. Research and Development Capacities in Irrigation,	4.1 Best Practices for Efficient, Productive Use of Water in	4.1.1 Number of technologies or management practices under research as a result of USG assistance	ME	4.5.2-39a	4	0

INTERMEDIATE RESULT (IR)	SUB IR	INDICATOR	ME OR AFR	STANDARD INDICATOR NUMBER	2012 TARGET	ACTUAL (CUMULATIVE) AS OF DECEMBER 14, 2012
Groundwater Management, and Drought Risk Assessment and Mitigation Strengthened	Agriculture Identified	4.1.2 Number of technologies or management practices under field testing as a result of USG assistance	ME	4.5.2-39b	0	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	0
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 trans-boundary water resources sustainability assessments undertaken	ME	4.5.2-41e	1	1
	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	0	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	0	0
		6.1.2 Number of USAID staff trained in WASH	ME/AFR	NA	0	0
		6.1.3 Number of WASH guidance materials updated or developed	ME/AFR	NA	2	0
	6.2 USAID WASH Visibility and Outreach Increased	6.2.1 Number of conferences and outreach events facilitated or supported	ME/AFR	NA	2	1