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FURTHER ADVANCING THE BLUE REVOLUTION INITIATIVE (FABRI)

YEAR TWO ANNUAL PROGRESS REPORT AND YEAR THREE WORK PLAN

24 OCTOBER 2013

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Further Advancing the Blue Revolution Initiative Year Two Annual Progress Report and Year Three Work Plan
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ACRONYMS

ACWUA	Arab Countries Water Utilities Association
AGU	American Gulf University
AfWA	African Water Association
AfYWP	African Young Water Professionals
AMCOW	African Ministers' Council on Water
APS	Annual Program Statement
AWW	Arab Water Week
BF	Business Forum
CDE	Camerounaise des Eaux
CKS	Communications and Knowledge Sharing
CNRST	Centre National pour la Recherche Scientifique et Technique (Maroc)
CO	Contracting Officer
COR	Contracting Officer Representative
COP	Chief of Party
CSR	Corporate Social Responsibility
DAI	Development Alternatives, Inc.
DEC	Development Experience Clearinghouse
DRC	Democratic Republic of the Congo
ELI	Environmental Law Institute
FABRI	Further Advancing the Blue Revolution
FOG	Fixed Obligation Grant
FPPO	Fixed Price Purchase Order
GIS	Geographic Information Systems
GMS	Greater Mekong Subregion
GUWL	Ghana Urban Water Company LTD
GWRI	Grand Water Research Institute, Technion Israel Institute of Technology
GYGA	Global Yield Gap Analysis
HAB	Harmful Algal Bloom
HSC+E	Harmon, Curran, Spielberg + Eisenberg LLP
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
ICRISAT	Institute for the Semi-Arid Tropics
IEA	International Institute for Water and Sanitation
INRGREF	National Institute for Research in Rural Engineering, Water and Forestry
IQC	Indefinite Quantity Contract
IRS	[United States] Internal Revenue Service
IWMI	International Water Management Institute
IWRM	Integrated Water Resources Management
JICA	Japan International Cooperation Agency
JPL	Jet Propulsion Laboratory
JUST	Jordan University of Science and Technology
KIWASCO	Kisumu Water and Sewerage Company

MEDRC	Middle East Desalination Research Center
MENA NWC	Middle East and North Africa Water Centers of Excellence
METRIC	Mapping EvapoTranspiration at high spatial Resolution with Internalized Calibration
MOU	Memorandum of Understanding
MPE	Mekong Partnership for the Environment
MRC	Mekong River Commission
NCARE	National Center for Agricultural Research and Extension
NCWSC	Nairobi City Water and Sewerage Company
NGO	Non-Governmental Organization
NRW	Non-Revenue Water
NRWB	Northern Region Water Board (Malawi)
NWSC	National Water and Sewerage Corporation (Uganda)
NWWSSCL	North Western Water Supply & Sewerage Co Ltd (Zambia)
ONEE	National Office of Potable Water
ONEA	National Office for Water and Sanitation
OSU	Oregon State University
PEER	Partnerships for Enhanced Engagement in Research
PIP	Performance Improvement Plans
PR&D	Policy, Research, and Development
QEERI	Qatar Environment and Energy Research Institute
QNFSP	Qatar National Food Security Program
RDMA	[USAID] Regional Development Mission for Asia
REO	[RDMA] Regional Environment Office
RfP	Request for Proposal
R&D	Research and Development
ROPME	Regional Organization for the Protection of the Marine Environment
RSS	Royal Scientific Society
SDE	Senegalaise des Eaux
SEEG	Société d'Énergie et d' Eau du Gabon
SEG	Société des Eaux de Guinée
SIM	Smart Infrastructure for the Mekong Program
SNDE	Société Nationale des Eaux (DRC)
SODECI	Société de Distribution d'Eau de la Cote d'Ivoire
SONEB	Société Nationale des Eaux du Bénin
SQU	Sultan Qaboos University
STE	Société Tchadienne des Eaux
SWSC	Swaziland Water Services Corporation
TAMIS	Technical, Administrative and Management Information System
TAMU	Texas A&M University
TDE	Société Togolaise des Eaux
TOR	Terms of Reference
TRG	Training Resources Group, Inc.
UC	University of California
UJ	University of Jordan
UNL	University of Nebraska – Lincoln

USAID	United States Agency for International Development
USBR	United States Bureau of Reclamation
Usafi	Kariobangi Private Primary Schools Sanitation [Project]
USG	United States Government
USU	Utah State University
WIF	Water Innovation Fellowships
WSA	Water and Sanitation in Africa
WU	Wageningen University
WWW	World Water Week
YWP	Young Water Professionals
YWSP	Young Water Scientist Partnerships

1. YEAR TWO ACHIEVEMENTS

In the Middle East and North Africa during Year Two, following the launch of the Middle East and North Africa Network of Water Centers of Excellence, FABRI developed the Network's governance and research foundations for implementation and sustainability. During the past year, the project has worked with the Network's 18 participating Centers to design and refine their research proposals for grants and for unsolicited research funds. FABRI assisted with the launching of the MENA NWC Founders Committee which met three times during the year and actively set a direction for the Network in governance, business planning, research, and knowledge exchange. It also organized a panel of Founders Committee members to introduce the Network to the global water community at World Water Week in Stockholm in September.

In Africa during its second year, FABRI has continued to raise the profile of USAID in the water sector. It has built strong working relationships with the Africa Water Association (AfWA) in Abidjan, Cote d'Ivoire and with the African Ministers' Council on Water (AMCOW) in Abuja, Nigeria, actively implemented the Non-Revenue Water (NRW) Program in close partnership with AfWA, developed a five-year business plan for AfWA, and released a small grants program targeted at Young Water Professional groups across the continent.

FABRI's Year Two achievements in partnership building have set the stage for Year Three's rapid implementation. The following are specific achievements of the project in the two regions.

MIDDLE EAST AND NORTH AFRICA

Convened the MENA NWC Founders Committee

The Founders Committee's mandate is to guide the establishment of MENA NWC and ensure a smooth transition to the operational phase. The seven members of the Founders Committee are:

- Samir Bensaid, Director General of the International Institute for Water and Sanitation, National Office for Electricity and Potable Water (ONEE-IEA) in Morocco

MENA NWC PARTICIPATING CENTERS

- Arabian Gulf University (Bahrain)
- Institute of Agronomy and Veterinary Science Hassan II (Morocco)
- International Center for Agricultural Research in Dry Areas
- International Center for Biosaline Agriculture (United Arab Emirates)
- International Water Management Institute
- Jordan University of Science and Technology
- Middle East Desalination Research Center
- National Center for Agricultural Research and Extension (Jordan)
- National Institute for Research in Rural Engineering, Water, and Forestry (Tunisia)
- National Office for Potable Water (Morocco)
- National Water Research Center (Egypt)
- Qatar National Food Security Program
- Qatar Environmental and Energy Research Institute
- Royal Scientific Society (Jordan)
- Sultan Qaboos University (Oman)
- Technion – Israel Institute of Technology
- University of Jordan
- Water and Environment Studies Institute, An Najah University (West Bank/Gaza)

U.S. UNIVERSITY PARTNERS

- California Institute of Technology
- Georgia Institute of Technology
- Purdue University
- Texas A&M University
- University of California at Davis
- University of Florida
- University of Nebraska
- University of Rhode Island
- University of Toledo
- Utah State University

- Thameur Chaibi, Head of Department of Rural Engineering at the National Institute for Research in Rural Engineering, Water, and Forestry (INRGREF) in Tunisia
- Manar Fayyad, Professor of Chemistry at The University of Jordan – Vice Chair
- Harvey Perlman, Chancellor of The University of Nebraska-Lincoln
- Muwaffaq Saqqar, Water and Environment Consultant Engineer at the Arab Fund for Social and Economic Development in Kuwait – Chair
- Jill Shaunfield Smail, Science and Technology Advisor in the Bureau of Near East Affairs at the U.S. Department of State
- John Wilson, Bureau Environmental Officer in the Middle East Bureau at USAID, who replaced Hady Amr, Deputy Assistant Administrator for the Middle East Bureau

The Founders Committee met three times, first in Washington, DC in March, then in Rabat, Morocco in June and finally in Stockholm, Sweden in September. Over the course of the meetings, the Founders Committee discussed and made key agreements on the Network’s governance structure and strategy for achieving financial sustainability, reviewed drafts of the five-year MENA NWC Strategic Business Plan, and gave critical input to FABRI on the Network’s capacity building and knowledge exchange initiatives.

Initiated Incorporation of MENA NWC

After careful consideration, the Committee agreed to register the Network in United States. Through a competitive procurement process, FABRI selected the Washington, DC-based law firm of Harmon, Curran, Spielberg + Eisenberg LLP to prepare the documentation for the incorporation of the Network and to claim Federal tax-exempt status. Over the course of the coming months, HSC+E will work collaboratively with the Founders Committee to prepare and file the Network’s documents for incorporation in an appropriate jurisdiction, draft the Network’s bylaws, and prepare and submit to the Internal Revenue Service (IRS) an application for Federal tax exempt status as a 501(c)3.

Received and Evaluated Policy, Research, and Development Grants Proposals and Selected Projects for Award

During Year Two, FABRI received 16 proposals for the Policy, Research, and Development (PR&D) Grants Program. The PR&D Grants Selection Committee met to evaluate the proposals and recommend awards. The Committee is chaired by Sarah Tully (USAID), and includes Jill Shaunfield Smail (Department of State), Peter Reiss (FABRI), and Kenneth Ludwa (FABRI). Committee members reviewed each proposal, prepared a written evaluation and scoring, and made an award/decline decision by consensus. Committee decisions were informed by external expert reviews. Each proposal’s award/decline status is summarized in the table below.

POLICY, RESEARCH, AND DEVELOPMENT GRANTS PROPOSALS AND AWARDS

Proposal Topic	Participating Centers	External Partners	Status
Water Use Efficiency and Productivity Thematic Partnership			
Developing Partnerships and Innovative Technologies to Improve Water Use Efficiency at River Basin Scale in Jordan, Morocco and Tunisia	INRGREF NCARE IAV	UC Davis	Selection Committee recommended provisional award; in negotiation
Application of Near-Real Time Soil Monitoring for Irrigated Agricultural Systems in MENA	ICBA INRGREF SQU NCARE		Selection Committee recommended provisional award; in negotiation
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	Selection Committee declined proposal
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	Selection Committee declined proposal
Non-Conventional Water Thematic Partnership			
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	Selection Committee recommended award; in negotiation
Conjunctive Use of Treated Wastewater and Conventional Water Resources to Sustain Agricultural Production and Mitigate Environmental Pollution: Diagnosis and Optimization	SQU INRGREF UJ	University of Florida	Selection Committee recommended provisional award; 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)	Selection Committee recommended provisional award; in negotiation
Solar Pumping and Desalination	UJ An Najah	USU	Selection Committee invited resubmission; in progress

Proposal Topic	Participating Centers	External Partners	Status
Assessment of Environmental and Health Hazards of Using Treated Wastewater for Agriculture	IAV INRGREF UJ	US Salinity Laboratory	Selection Committee declined proposal
Enhancing Cost Recovery in Wastewater, Greywater and Fecal Sludge Management through Safe Reuse	IWMI SQU JUST An Najah	UC Davis	Selection Committee declined proposal
Groundwater Thematic Partnership			
Guidelines for Artificial Groundwater Recharge Using Flood Farming	UJ ICBA	UNL	FABRI declined proposal
Managed Aquifer Recharge Using Treated Wastewater	SQU UJ RSS	UNL JPL	Selection Committee recommended provisional award; holding award pending securement of additional grants funds
Sustainability of Groundwater Use in Tunisia and Jordan	ICARDA INRGREF NCARE	UC Davis, Environmental Law Institute	Selection Committee invited resubmission; in progress
Water-Food-Energy Nexus Thematic Partnership			
Water, Energy, and Food Nexus: a Basis For Strategic Planning for Natural Resources Sustainability-Challenges for Application in the MENA Region	QNFSP INRGREF UJ	Purdue	Selection Committee recommended provisional award; in negotiation
Energy Efficient and Environmentally Friendly Water Distribution Networks	UJ ONEE QEERI ACWUA		Selection Committee declined proposal
Water Supply and Sanitation Thematic Partnership			
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

FABRI also extended the PR&D Grants proposal deadline from August 3, 2013 to November 3, 2013 and continued to track Centers' progress on proposals. As of September 14, 2013, five teams continued to prepare proposals with intent to submit by the deadline.

Facilitated and Attended Meetings to Prioritize and Develop Research Proposals

In November 2012, FABRI Chief of Party (COP) Peter Reiss met with research teams in Jordan and Morocco. In Morocco, a research team of IAV, RSS, NCARE, and An Najah developed a proposal on resilience and adaptive capacity to climate change. In Tunisia, a team of INRGREF, IAV, ICARDA, and NCARE developed a proposal on technology for improved water use efficiency. During the meetings, the research teams developed work plans and decided roles for each participating Center. The COP provided guidance on strengthening the project and proposal.

In February 2013 FABRI Grants Manager Kenneth Ludwa attended three meetings in Oman, Qatar, and Dubai. In Oman, SQU hosted a meeting with INRGREF, UJ, and the University of Florida to develop a proposal on optimizing the use of treated wastewater in irrigation. In Qatar, QEERI hosted a meeting with UJ and INRGREF to develop a proposal on modeling the food-water-energy nexus. In Dubai, ICBA hosted a meeting with INRGREF and SQU to prepare a proposal on near-real time soil monitoring for irrigated agricultural systems.

In June 2013, FABRI Grants Program Manager Kenneth Ludwa met with QEERI, UJ, RSS, IAV, and AGU in Qatar to prioritize and develop proposals in the Water-Energy-Food Nexus Thematic Partnership. Engineer Miguel Rocha of the U.S. Bureau of Reclamation (USBR) also attended to provide technical support. The attendees chose to develop proposals on low carbon, low cost water supply and optimum pumping technologies for different water applications. The meeting was hosted by QEERI, which covered lodging for the meeting participants and provided meeting space.

Agreed on Terms for Four U.S.-MENA NWC Research Project Partnerships

FABRI supported the development of four research projects which complemented the PR&D Grants Program:

1. *Combatting the Emerging Impacts of Harmful Algal Blooms on Desalination Plants: Bloom Detection, Forecasting, and Strategies for Impact Reduction.*

The proposal is led by MEDRC, partnering with Woods Hole Oceanographic Institution, the National Oceanic and Atmospheric Administration, University of California Santa Cruz, SQU (Oman), and the Regional Organization for the Protection of the Marine Environment (ROPME) in Kuwait. The objective of this project is to develop satellite remote sensing indices and a numerical model to predict harmful algal blooms (HABs), and to develop HAB response plans for desalination plant operators. In Year Two, FABRI and MEDRC agreed on a scope and budget for the project. The team is planning a project kickoff meeting in December 2013.

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

This project will extend the University of Nebraska – Lincoln (UNL) global yield gap analysis to the Middle East and North Africa, to compare optimal and actual agricultural productivity and explain the reasons for the gap. Scientists from IAV, INRGREF, and NCARE will take part in this capacity building effort. The project started on September 1, 2013. The University of Nebraska organized a three-day project kickoff and training workshop at Wageningen University, Holland from September 10-12, 2013. The objectives of the workshop were to (a) provide an opportunity for key scientists involved in the project, from the lead universities UNL, U.S. and Wageningen University (WU) in Holland, and participating Centers from Morocco, Tunisia and Jordan, to meet each other for the first time; (b) introduce to the participating scientists the research methodology and protocols that have been developed during the current GYGA project; and (c) discuss project plans, deliverables and timelines. Participants included seven key scientists from the three participating Centers, two scientists from UNL, five from WU, and one from the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Kenya. The topics covered in the workshop included:

- An overview of global food security and the current status of the greater GYGA project and research methodology
- An overview of major cropping systems and crop production in each of the participating countries and identifying major crops in each country to be included in the GYGA-MENA project
- Crop simulation modeling for estimation of crop yield potentials and hands-on exercise of major crop models used in the GYGA project
- Climate zoning in yield gap analysis and up-scaling
- Data issues with weather, soil, crop management, and crop yield data
- GYGA data portal and visualization of yield gap analysis
- Potential applications of advanced remote sensing in GYGA project
- Discussion of plans, deliverables and timelines for GYGA-MENA project.

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

As conceived by the California Institute of Technology 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. Network Centers include the Institute of Agronomy and Veterinary Science Hassan II (IAV) in Morocco and Sultan Qaboos University (SQU) in Oman. During Year Two, FABRI agreed with Caltech on the scope and budget. FABRI submitted a complete file to the USAID Contracts Office for approval and is awaiting approval.

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

The major objectives of this project, led by 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. During Year Two, FABRI and ACWUA negotiated a scope and budget for submission to USAID for approval.

Collaborated with USAID Partnerships for Enhanced Engagement in Research to Present Research 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 MERDC 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.

Initiated Knowledge Exchange Activities

A strategic goal of the Network is to create and exchange knowledge in practical and useful ways. To this end, FABRI released a Request for Proposal (RfP) to solicit proposals to design and launch a dynamic website for the MENA NWC. The website will introduce the Network to a wide audience which includes the staff of Network Centers, government institutions, private sector partners and potential funders/donors. It will also be an important means to encourage interaction and knowledge exchange between the Centers through its searchable database of Network members, moderated online discussion forums, and MENA Clearinghouse of publications and training materials relevant to researchers and practitioners active in the water sector. The RfP was released to seven firms in August 2013 and three proposals were received in September 2013. In addition to the competitive procurement for website design services, the Network released a quarterly Newsletter that featured its activities, such as meetings of the Founders Committee and grant awards under the PR&D grants program. In order to track readership, the Newsletter was distributed using a digital magazine publishing service, Joomag, which allows FABRI to track the number of readers who accessed the Newsletter, the countries from where the Newsletter was accessed, and the average time readers spent viewing each page.

Released Young Water Scientist Partnerships Small Grants Annual Program Statement

In May 2013, FABRI released the Annual Program Statement (APS) for the Young Water Scientist Partnerships (YWSP) Small Grants Program. The APS sets the terms and conditions for the YWSP small grants program and establishes the proposal format and requirements, including a Technical Proposal Form and a Cost Proposal Worksheet. Each YWSP stimulates collaboration between young water research scientists in two or more Centers through a research

project that aspires to make a concrete impact in the water sector. Research projects must address a policy, operational, technical, or managerial issue that is identified by stakeholders in government, business, NGOs, or civil society. They must also address one or more of MENA NWC's priority research areas: water use efficiency and productivity, groundwater, non-conventional water, water/energy/food nexus, and water supply and sanitation. The small grants program is open to full-time or part-time employees of MENA NWC Centers between the ages of 21 and 40. Proposals must be submitted by two research scientists from two different Centers. Under the APS, FABRI will accept proposals from May 11, 2013 to December 31, 2013. A funding pool of US \$350,000 is available for small grants under this program, with awards ranging in size from \$10,000 to \$50,000, with most projects anticipated at the lower range. Applicants are encouraged to seek funding/co-financing in cash and in-kind from external sources, such as MENA NWC Centers, utilities, governments, businesses, civil society organizations, and similar entities.

Released Water Innovation Fellowships Small Grants Annual Program Statement

In September 2013, FABRI released the APS for the Water Innovation Fellowships (WIF) small grants program. The fellowships seek to stimulate partnerships between researchers and practitioners and to reward innovative thinking to solve water problems. As with the PR&D and YWSP small grants program, research projects must address one of MENA NWC's priority research areas: water use efficiency and productivity, groundwater, non-conventional water, water/energy/food nexus, and water supply and sanitation. Applicants must be citizens and residents of a Middle Eastern and North African country and a full-time employee of an institution or entity based in the Middle East and North Africa. Under the APS, FABRI will accept proposals from September 1, 2013 to February 28, 2014. A funding pool of US \$250,000 is available for small grants under this program, with awards ranging in size from \$5,000 to \$25,000, with most projects anticipated at the lower range. Applicants are encouraged to seek funding/co-financing in cash and in-kind from external sources, such as MENA NWC Centers, utilities, governments, businesses, civil society organizations, and similar entities.

Mapped Business Opportunities in Jordan

The mapping activity comprised a series of consultations and interviews with private sector businesses in Jordan. It identified opportunities for their partnering with MENA NWC by exploring current levels of interest among businesses, current operational challenges that businesses face related to water and energy, identifying both incentives for participation and potential partners for applied research, assessing the potential for support from Corporate Social Responsibility (CSR) funds and in-kind contributions, and listing potential donor groups. Out of twenty-eight companies that we first identified, FABRI interviewed 14 strong candidates that are interested in participating in MENA NWC. The findings were documented in the report "Jordan: Assessing Interests and Opportunities for Private Sector Partnership with the MENA NWC" that was presented and discussed with the Centers in Jordan. The mapping information is the basis for a coherent and effective approach for establishing alliances and partnerships with the private sector, and it highlights key issues that need to be addressed for building successful partnerships.

Continued Dialogue with Businesses in Jordan and Morocco

As a follow-up to the business mapping in Jordan, FABRI continued the dialogue with businesses through face-to-face meetings and solicited private sector interest in participating in specific research proposals. Some companies confirmed their interest to participate in specific research proposals under the Policy, Research and Development Grants program. As part of the preparatory work for mapping business opportunities in Morocco, Razan Quossous, the Private Sector Partnerships Expert, visited Morocco. During the visit, she participated in the International Water Exhibition in Casablanca and met with a number of Moroccan and international firms working in sanitation, wastewater treatment and technology, and irrigation. Discussions with businesses in Morocco provided initial understanding of key issues related to research in Morocco and partnership with MENA NWC.

AFRICA

Issued Institutional Support Grant to the African Ministers' Council on Water

A priority of FABRI is to strengthen regional institutions in Africa that serve as our point of entry in the water and sanitation sector. The African Ministers' Conference on Water (AMCOW) serves as one of the primary partners for FABRI in Africa. FABRI issued an 18-month institutional strengthening grant to AMCOW which started on March 1, 2013. The Fixed Obligation Grant (FOG) is for \$350,000 and provides institutional support to the organization. It funds two program coordinators and governance efforts in establishing AMCOW's sub-regional presence.

Launched the Africa Non-Revenue Water Program in Burkina Faso

As a follow-up to the Nairobi launch of three-year program to reduce non-revenue water in 21 utilities in 19 countries in eastern, central, southern, and western Africa, AfWA and FABRI convened a second launch for West African utilities and any other utilities who were not able to participate in the Nairobi workshop. The National Office for Water and Sanitation (ONEA) hosted the launch. Representatives from the African Minister's Council on Water (AMCOW), JICA and USAID also participated in the launch. The workshop provided an opportunity for representatives from participating utilities to review and discuss the AfWA and FABRI NRW program objectives, expectations, approach, and identify their roles and responsibilities; the role of the AfWA NRW Task Force in implementing the program; NRW management techniques and analytical tools; and utility audit plans, including a schedule for audit visits and audit teams.

Conducted Audit Planning Workshops

During the second year, AfWA and FABRI conducted two audit planning workshops, in English and in French, to ensure that all Task Force members use the same process, procedures and methodology to conduct the utility audits. The workshops provided an opportunity for Task Force members to develop a standard approach and a toolkit that audit teams used to conduct future audits. The standard approach allows for benchmarking of the current NRW situation in

each participating utility and provides data to monitor and compare any improvements that are made over the next several years as a result of the audit findings and performance improvement plans (PIPs).

The first workshop was held January 14-20, 2013 at the African Water Academy in Kampala, Uganda for the seven English speaking Task Force members. The second audit planning workshop was held 10-17 February 2013 in Dakar, Senegal for five French speaking Task Force members. Utility audits were conducted as part of each audit planning workshop so that Task Force members had hands-on experience in the audit process and report writing.

Conducted Non-Revenue Water Utility Audits

During the second year, teams of two to three Task Force Members continued conducting eleven more NRW audits, including SWSC (Swaziland), CDE (Cameroon), NWSC – Jinja and Entebbe (Uganda), SDE (Senegal), SONEB (Benin), TDE (Togo), Benue (Nigeria), Lukanga and NWWSSCL (Zambia), and SEG (Guinea). Auditors developed the water balance in each utility and conducted physical network and institutional assessments. The reports included recommendations for action-based next steps in the short and long run. The audit visits included initial meetings with utility management and ended with workshops with utility staff. AfWA shared all the audit reports with the utilities for development of their performance improvement plans to begin implementation of the recommended actions.

The following remaining audits, SNDE (Congo Brazzaville), SEEG (Gabon), GUWL (Ghana), ONEA (Burkina Faso), SODECI (Cote d'Ivoire), STE (Chad), NRW (Malawi) and Bauchi (Nigeria), will be rescheduled during the upcoming Task Force Meeting in Swaziland, November 9-11, 2013. The map on the following page shows completed and pending audits by country.

Planned the NRW Task Force Meeting

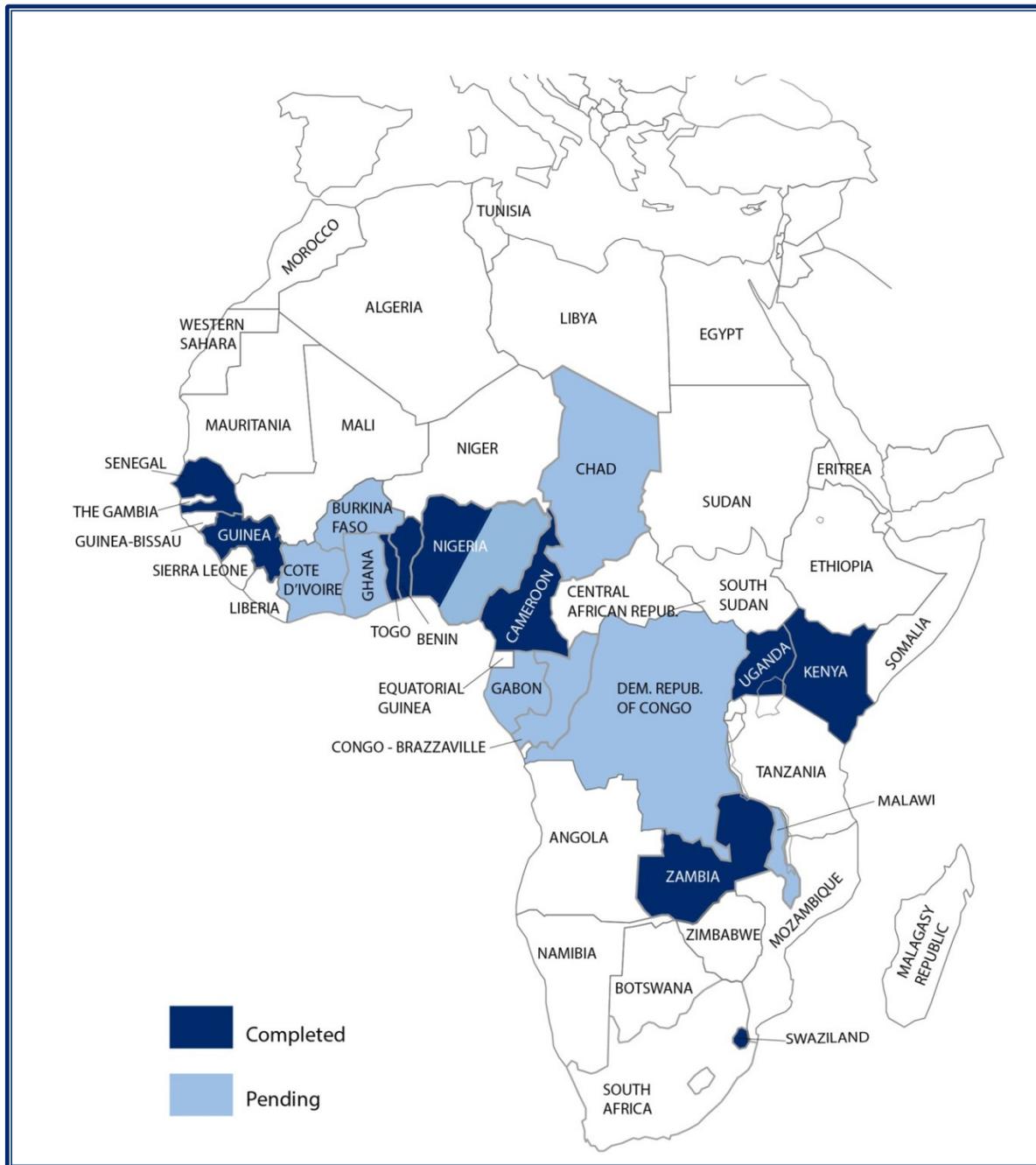
AfWA and FABRI are planning the second AfWA NRW Task Force meeting November 9-11, 2013 in Mbabane, Swaziland. The agenda topics include: audit reviews/feedback, PIPs, partnerships with MENA and ACUWA on audits and events, and as well planning for various meetings during the 2014 AfWA Congress, including for managing directors, donors, and young water professionals, and on communications and knowledge sharing.

Swaziland Water Services Corporation (SWSC), an AfWA member and NRW program participant, has offered to host the meeting at their utility. In addition to hosting the event, they will also cover the cost of all lunches and breaks during the three-day meeting. FABRI will cover the cost of lodging, transport, and interpretation services.

Completed the AfWA Business Plan

Working closely with the AfWA Secretary General and the Executive Committee, FABRI helped to develop a five-year business plan that will set the course for the strengthening, expansion, and sustainability of the association. The business plan identifies the core business of AfWA, projects expenditures over the period, and realistic identification of revenue streams to

NON-REVENUE WATER UTILITY AUDITS BY COUNTRY



cover those expenses. The Business Plan was presented to the Executive Board at an STC meeting in Conakry, Guinea in November 2012, and a final, revised version will be presented to the Executive Board during the AfWA Congress in Abidjan on February 17-20, 2014.

Initiated Development of AfWA Communication and Knowledge Sharing (CKS) Plan

In November 2012, AfWA and FABRI convened a planning meeting in Conakry, Guinea for AfWA representatives and communications managers from 14 member utilities to determine how AfWA can better support communications and knowledge sharing (CKS) programs in member utilities. One of the meeting outcomes was the establishment of an AfWA CKS Task Force that will guide, revise, monitor, and support implementation of the CKS plan. Additionally, the AfWA website design APS was completed. As AfWA is a membership-based organization, the main goal of the website will be to provide technical resources to its members. As well, it will 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' water, sanitation, and health accomplishments, it will also highlight AfWA's technical programs and incorporate training and education materials.

Released AfYWP Annual Program Statement

In partnership with FABRI, on March 16, 2014, AfWA released the African Young Water Professionals (AfYWP) Small Grants Program Annual Program Statement. The APS sets the terms and conditions of the AfYWP Small Grants Program, and establishes the proposal format and requirements. Under the APS, FABRI will accept proposals through March 14, 2014. The small grants program is an important channel for stimulating innovation and addressing the challenges of NRW and urban sanitation in Sub-Saharan Africa. The ultimate goal of the program is to improve lives by increasing access to reliable and safe water and sanitation services. The program also seeks to build careers of young water professionals and give them an opportunity to address the needs and challenges of the water sector. In order to participate in the grants program, the young water professional has to be a member of a national YWP chapter.

AfWA received the first AfYWP proposal from a Kenyan AfYWP, titled "Kariobangi Private Primary Schools Sanitation (Usafi) Project. This four-month project hopes to bridge the gap between water, sanitation, and health programs and private schools, which are often not included. By working with fourth through sixth graders in seven private schools, the project hopes to promote sanitation awareness through teacher trainings and an art competition. Additional proposals were received, but they are pending selection committee review upon finalization of the national chapter registration.

Supported the Formation of AfYWP National Chapters

Since AfYWP chapters were only active in Kenya, Rwanda, Uganda, and South Africa, the release of the AfYWP small grants program APS and flyer has led to the formation of several new national chapters, including Cameroon, Chad, Mali, Senegal, Tanzania, and Togo. FABRI has received a dozen or more weekly inquiries from young water professionals from sub-Saharan African countries regarding the chapter registration process and grant application steps. Previously formed national chapters included Kenya, Malawi, Namibia, Uganda, Rwanda, Tanzania, South Africa, and Swaziland. The next group expected to be formed by December 2013 includes Benin, Burkina Faso, Burundi, Cote d'Ivoire, DRC, Ghana, Mozambique, and Zimbabwe.

ASIA

Providing Long-term Support to the Mekong River Commission through the Regional Development Mission for Asia

USAID asked FABRI to provide a full-time expert for one year to assist with Mekong River Commission (MRC) support and identify other potential opportunities and leverage the activities of other USG agencies, USAID missions, development partners (through the Friends of Lower Mekong), regional institutions, national governments and the private sector. Following an open competition, Klomjit Chandrapanya was chosen to serve as Senior Mekong Affairs Advisor. The role of the Advisor is to prepare a comprehensive long-term MRC strategy for the Regional Development Mission for Asia (RDMA) to promote fair and effective governance of water, food, and energy in the Greater Mekong Subregion (GMS), particularly as it relates to development of hydropower on the Mekong River. She is also responsible for strategy execution and coordination, including development of a five-year Plan of Action to implement the RDMA's MRC 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. Since starting, the Senior Mekong Affairs Advisor has gathered information on what the USG agencies that are working with MRC are, summarized what they are doing, and identified the point of contact for each agency into an annex. She also wrote a two-page report on the importance of better coordination of US technical and financial support to the MRC for coherence in policy messages that have been articulated at a very high level in the USG. With the report, the State Department convened a teleconference including multiple USG agencies to underscore that it is best that efforts be better communicated and coordinated through the State Department and not as independent, ad hoc activities.

PROJECT MANAGEMENT

FABRI's Year Two project management achievement ensure that FABRI has the necessary infrastructure in place to move ahead quickly with technical activities in Year Three. In Year Two, FABRI solidified the core team, continued to update the customized management information system, increased the participation of external technical resources, and issued Annual Program Statements for two new grants programs.

Solidified the FABRI Core Team

In addition to the FABRI home office team members that were already in place at the end of Year One, FABRI added one position, the Middle East Activity Manager, in Year Two. Christel Milazzo joined the team in December 2012 to fill the role of Middle East Activity Manager. During Year Two, the FABRI Project Coordinator, Julie Carp, left the project to pursue other professional interests. She was quickly replaced with the new FABRI Senior Project Coordinator, Megan Delph, who will begin working with the project in October 2013. The Information Management Specialist, Kathy Alison, left the project in March 2013, and FABRI decided not to fill her position. FABRI will use short-term technical assistance as needed to fulfill the project's needs in the areas of information management, communications, and knowledge exchange. Lastly, at USAID's request, FABRI added a new full-time staff position

based in Bangkok, Thailand. Klomjit Chandrapanya began work on August 5, 2013 as the Senior Mekong Affairs Advisor based in Bangkok. She will work closely with the USAID mission in Thailand to complete a comprehensive external outreach strategy on development of the Mekong River Basin in close consultation with various stakeholders, and then operationalize it. Her major tasks will focus on strategy development; strategy execution and coordination; and communications and outreach.

Continued to Update the Customized Management Information System

During Year Two, the FABRI team continued to regularly update the customized Technical and Administrative Management Information System (TAMIS) with all important project documents. The TAMIS forms the core of FABRI's filing and document management system. In addition to managing the storage of all project documents, the TAMIS is also used to manage the grants process and to ensure that all grants issued under the FABRI project are compliant with both USAID regulations and DAI policies.

Continued to Increase the Participation of Technical Resources Outside of the FABRI Core Team

In the second year of the project, FABRI has signed over 15 contracting vehicles, including IQC subcontracts with the University of Florida and the University of California-Davis; three new task orders with the Training Resources Group, a new task order with Valu Add, a new task order with the University of Nebraska (UNL), and two new task orders with the University of Florida; a one-year extension to the subcontract with Utah State University (USU); three new Purchase Orders to Malcolm Farley Associates and a new Purchase Order with the Environmental Law Institute (ELI); an institutional strengthening grant to AMCOW; and three Independent Consultant Agreements (ICAs) with Shawki Barghouti, Norval Stan Peabody, and Rita Klees.

2. YEAR THREE ANTICIPATED RESULTS

The following are highlights of planned Year Three results, described in detail in Section 3:

Middle East and North Africa

- MENA NWC incorporated in a United States jurisdiction as a 501(c)3
- MENA NWC Founders Committee's final meeting and convening of the Board of Directors
- MENA NWC Business Plan approved by the Board of Directors
- MENA NWC Financial Sustainability Strategy and Action Plan developed and implemented
- Multiple grants awarded to participating Centers for cutting edge research
- Partnerships established with outstanding U.S. institutions to bring new technologies and techniques to the region
- Centers collaborating with each other and external collaborators on multiple Policy, Research, and Development (PR&D) grant projects
- Centers exchanging technical results and research project management experience in Thematic Partnership meetings
- US-MENA NWC Research Project Partnerships building regional expertise and technology capacity and applying advanced technologies to regional issues
- Business partnerships created to expand MENA NWC agenda
- MENA NWC website launched and communities of practice activated
- Capacity development activities underway, including a training in proposal conceptualization and writing for young water scientists

Africa

- AfWA Business Plan implemented with increased staff and surer financial footing
- AfWA website launched
- NRW utility audits completed
- NRW performance improvement plans completed
- AfWA NRW Task Force increasingly active in technical leadership role
- Non-USAID donor participation in NRW program
- AfWA/ACWUA partnership formalized in a memo of understanding
- Small grants awarded to young water professionals

Asia

- USAID/Regional Development Mission for Asia strategy for working with the Mekong River Commission and other donors completed, approved, and implemented

Project Management

- Fulfilled expectations of USAID and regional partners on a timely basis

3. RESULTS / REQUIREMENTS MATRIX

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

Requirement	Activities	Objectives	Description	Deliverables	Time Frame	Experts (Lead in Bold)
1.1: Support MENA NWC Establishment	Completed in Year One.					
1.2: Design a Trust Fund or Endowment to Help Ensure the Sustainability of the Network	The MENA NWC Founders Committee has decided to postpone this activity until 2017, our Year Four of the Business Plan.					
1.3: Support Operations of the MENA NWC Secretariat	Finalize the MENA NWC Business Plan	<ul style="list-style-type: none"> ▪ Review the Business Plan with Founders Committee and Centers ▪ Receive Board of Directors approval following its convening 	The five-year business plan will clarify the core business of the Network, clarify anticipated expenditures, and identify potential and realistic revenue streams. Development of the plan requires visits to participating Centers, donors and businesses in the Middle East, U.S., and Europe. The document is also intended to attract investment by outside groups.	<ul style="list-style-type: none"> ▪ Business plan reviewed and approved by the Board of Directors following concurrence by the Founders Committee 	Completion June 2014	Peter Reiss Philip Giantris Juliana Filo

Requirement	Activities	Objectives	Description	Deliverables	Time Frame	Experts (Lead in Bold)
	Incorporate MENA NWC	<ul style="list-style-type: none"> ▪ Complete the legal incorporation of MENA NWC in a US jurisdiction 	HCS+E will work prepare a report for the Founders that evaluates the appropriateness of Maryland, Virginia, Delaware, and Washington DC as venues for incorporation of the Network.	<ul style="list-style-type: none"> ▪ Assessment of jurisdictions for MENA NWC incorporation ▪ Articles of Incorporation 	November 2013	Christel Milazzo Peter Reiss
	Acquire 501(C)3 Tax-Exempt Status for MENA NWC	<ul style="list-style-type: none"> ▪ Receive Internal Revenue Service approval of tax-exempt status 	HCS+E will work closely with FABRI and the Founders Committee to draft the bylaws and submit to the Internal Revenue Service (IRS) an application for Federal tax-exempt status as a 501 (c)3 for MENA NWC.	<ul style="list-style-type: none"> ▪ Bylaws ▪ Application for federal tax exempt status 	June 2015	Christel Milazzo Peter Reiss

Requirement	Activities	Objectives	Description	Deliverables	Time Frame	Experts (Lead in Bold)
1.4: MENA NWC Founders Committee Established and Transitioned to Board of Directors	Convene the Final Meeting of the Founders Committee	<ul style="list-style-type: none"> ▪ Convene the final meeting in Amman ▪ Prepare for transition to the Board of Directors 	FABRI and the Secretariat will convene a final meeting of the Founders Committee in Amman during the first quarter of 2104.	<ul style="list-style-type: none"> ▪ Agendas and minutes of each meeting ▪ Reports on issues requiring special attention 	January or February 2014	Peter Reiss Christel Milazzo
	Create and Convene the Board of Directors	<ul style="list-style-type: none"> ▪ Create a representative board structure with the expertise and experience needed for fiduciary and general Network management 	The Board, chosen by the Founders Committee, will be the guiding and administrative body of the Network which is responsible for financial and strategic oversight; it will operate consistent with best practices for non-profit governance.	<ul style="list-style-type: none"> ▪ An invested Board of Directors with at least nine members 	June 2014	Peter Reiss
	Finalize Draft Documents Supporting Board of Directors Governance	<ul style="list-style-type: none"> ▪ Clarify and formalize the roles and responsibilities of committee members 	Draft terms of reference (TOR) and operation procedures need to be finalized and then approved by the Founders Committee at its first meeting.	<ul style="list-style-type: none"> ▪ Final versions of the TOR and operating procedures 	February 2013	Peter Reiss

Requirement	Activities	Objectives	Description	Deliverables	Time Frame	Experts (Lead in Bold)
	Establish and Convene Specialized Sub-Committees	<ul style="list-style-type: none"> ▪ Increase the engagement of committee members in Network matters ▪ Complete special requirements quickly and efficiently 	At the first meeting of the Board of Directors, the Interim Management Unit will propose the immediate formation of three special sub-committees to oversee Network: legalization, business planning, and financial sustainability.	<ul style="list-style-type: none"> ▪ TOR for the subcommittees ▪ Scope of work for the lawyer to support the legalization process ▪ Approval fundraising strategy ▪ Updates and progress reports 	Sub-committee formation at first meeting and follow-up meetings to carry out sub-committee functions	Peter Reiss
1.5: Technical Demonstration Activities of the Network Launched	Negotiate and Award PR&D Grants	<ul style="list-style-type: none"> ▪ Ensure grant-funded projects are cost-effective and aligned with MENA NWC objectives ▪ Ensure grant awards are consistent with USAID regulations and DAI policies ▪ Establish grant agreements 	For most projects receiving award recommendations, FABRI has issued provisos for award, requesting modifications to the Technical Proposal and/or Cost Proposal. Investigators will modify proposals in response to provisos and FABRI will review the modified proposal. After negotiations are complete, FABRI will prepare separate grant agreements for each institution on the project team, and send the agreements for signatures.	<ul style="list-style-type: none"> ▪ Provisional letters and final modified proposals ▪ Signed grant agreements 	October 2013 – March 2014	Kenneth Ludwa Christel Milazzo Bethany Hu Peter Reiss

Requirement	Activities	Objectives	Description	Deliverables	Time Frame	Experts (Lead in Bold)
	Support PR&D Grants Kickoff Meetings	<ul style="list-style-type: none"> ▪ Establish project roles and responsibilities ▪ Develop detailed project work plan, the first major deliverable required for each grant 	Each project will hold a project kickoff meeting, involving the principal investigators, external collaborators, and other key project personnel. The primary purpose of the meeting will be to develop a detailed project work plan that describes each Center's specific activities and how the Centers will coordinate and synthesize the activities to achieve the project objectives. FABRI will attend these meetings to provide support and guidance.	<ul style="list-style-type: none"> ▪ Detailed project work plan for each grant 	November 2013 – March 2014	Kenneth Ludwa Peter Reiss Christel Milazzo Bethany Hu
	Monitor Projects	<ul style="list-style-type: none"> ▪ Identify implementation problems ▪ Ensure that grantees are meeting milestones ▪ Ensure compliance with USAID and DAI policies 	FABRI staff will visit grantees at their home institutions or in grant project meetings, review progress reports, and check progress against proposed milestones, and offer support where needed. Responsibility for monitoring.	<ul style="list-style-type: none"> ▪ Grant progress reports 	November 2013 – September 2014	Kenneth Ludwa Peter Reiss Christel Milazzo Bethany Hu

Requirement	Activities	Objectives	Description	Deliverables	Time Frame	Experts (Lead in Bold)
	Manage U.S.-MENA NWC Research Project Partnerships	<ul style="list-style-type: none"> ▪ Use non-grant research projects to build regional expertise and technology capacity ▪ Apply advanced technologies to regional issues 	These research projects address a regional need using technologies and expertise outside the capacity of regional researchers. FABRI will attend the project kickoff meetings to provide support and guidance. FABRI will visit the regional project sites and meetings, review progress reports, and check progress against proposed milestones, and offer support where needed.	<ul style="list-style-type: none"> ▪ Subcontract awards ▪ Progress reports 	October 2013 – September 2014	Peter Reiss Kenneth Ludwa Christel Milazzo Bethany Hu
	Develop and Implement Training in Business Development Strategies	<ul style="list-style-type: none"> ▪ Train MENA NWC staff in business development 	MENA NWC Centers have varying success securing outside funding for research projects. FABRI will collaborate with UNL to design and implement a capacity building program in business development for Network Centers that will cover topics such as donor research, funding opportunity identification, technical proposal writing, and cost proposal development.	<ul style="list-style-type: none"> ▪ Training program materials 	July 2014	Peter Reiss UNL Christel Milazzo

Requirement	Activities	Objectives	Description	Deliverables	Time Frame	Experts (Lead in Bold)
	Develop and Implement Training in Technical Topics	<ul style="list-style-type: none"> ▪ Train MENA NWC scientists in methods and technologies for application to MENA NWC research 	Through Thematic Partnership meetings and other engagements, FABRI will work with MENA NWC scientists to identify technical training needs and opportunities that will augment ongoing research activities. The training may occur at the beginning of a research project in order to use it in the project, or it may occur as peer-to-peer knowledge sharing during or after the project.	<ul style="list-style-type: none"> ▪ Training program materials 	Throughout the work plan period	Peter Reiss Christel Milazzo Kenneth Ludwa
	Convene Thematic Partnership Meetings	<ul style="list-style-type: none"> ▪ Hold one meeting of each Thematic Partnership to develop research priorities and encourage information sharing and exchange 	Thematic Partnerships are mutually agreed upon technical focal areas: (1) water use efficiency and productivity, (2) groundwater management, (3) non-conventional water, (4) water/energy/food nexus, and (5) water supply and sanitation. Over the course of the work plan period, the members of each Thematic Partnership will meet to determine research priorities, identify training needs and encourage information sharing and exchange. This will also be an opportunity to share present and engage users in the online collaboration tools built in the MENA NWC website and initiate communities of practice.	<ul style="list-style-type: none"> ▪ Meeting agendas ▪ Meeting reports 	Throughout the work plan period	Peter Reiss Ken Ludwa Christel Milazzo

Requirement	Activities	Objectives	Description	Deliverables	Time Frame	Experts (Lead in Bold)
	Launch MENA NWC Website and Clearinghouse	<ul style="list-style-type: none"> ▪ Launch dynamic MENA NWC website ▪ Engage MENA NWC Center researchers and staff in website platforms, such as online discussions and clearinghouse 	The MENA NWC website will build recognition, awareness and interest in the activities of the MENA NWC and the programs it offers. Through its online discussion forums, it will provide an online platform for Network researchers and water practitioners to collaborate on research and other topics of mutual interest. It will also provide a clearinghouse of publications, data, newsletters, training materials relevant to the water sector in MENA that can be easily searched, and widely accessed and shared.	<ul style="list-style-type: none"> ▪ Website ▪ 2-3 active online discussions on a technical topic ▪ 200 registered users ▪ Robust Clearinghouse accessed by users in the Middle East and elsewhere 	Website launch in May 2014	Christel Milazzo Peter Reiss

Requirement	Activities	Objectives	Description	Deliverables	Time Frame	Experts (Lead in Bold)
1.6: Network Strengthening through Private Sector Participation	Map Businesses in Selected Countries	<ul style="list-style-type: none"> ▪ Conduct a business mapping activity in Morocco. ▪ Develop profiles of businesses in the water sector in Morocco ▪ Identify business partnership opportunities in Morocco for MENA NWC 	FABRI will continue to identify opportunities for MENA NWC business partnerships. After completing the business mapping in Jordan FABRI will conduct a business mapping activity in Morocco and identify companies in the fields of water and sanitation and wastewater treatment and irrigation and solicit their interest to participate in MENA NWC.	<ul style="list-style-type: none"> ▪ Business Partnerships country report for Morocco 	January-July 2014	Razan Quossous Said Ouattar Ouiam Lahlou
	Develop Fundraising Strategy, Action Plan, and Marketing Materials for the Financial Sustainability of MENA NWC	<ul style="list-style-type: none"> ▪ Broaden MENA NWC's interests and impact in the region ▪ Increase research and outreach funding 	FABRI also compete a tender to hire a fundraising company in the U.S. to develop a strategy, action plan, and marketing materials to ensure the financial sustainability of the Network. Based on this activity, it will prepare a strategy for establishing business partnerships with the private sector.	<ul style="list-style-type: none"> ▪ Strategy, action plan, and marketing materials for fundraising ▪ Strategy for business partnerships with MENA NWC ▪ Network brand 	November 2013-September 2014	Peter Reiss Razan Quossous Kenneth Ludwa Christel Milazzo

Requirement	Activities	Objectives	Description	Deliverables	Time Frame	Experts (Lead in Bold)
	Convene Business-Focused Roundtables	<ul style="list-style-type: none"> ▪ Target industrial and commercial interests to build alliances ▪ Refine the Network's agenda by including private sector issues to attract investment 	Foster conversations among the private sector, the government, the research community, and civil society. These alliances and partnerships will prosper with political and financial backing. We will encourage Centers to host and facilitate the roundtable discussions and meetings, as much as possible.	<ul style="list-style-type: none"> ▪ Two roundtables in the Middle East in member Center countries 	January-December 2014	Razan Quossous Peter Reiss
	Formalize Business Partnerships	<ul style="list-style-type: none"> ▪ Cement relations with businesses ▪ Expand the funding for MENA NWC activities 	During the period, FABRI will seek to formalize financial partnerships with businesses in the Middle East, U.S. and Europe that provide additional technical and financial resources to the Network.	<ul style="list-style-type: none"> ▪ Signed memoranda of understanding, agreements ▪ Contracts formalizing service exchanges 	Through September 2014	Razan Quossous Peter Reiss Shawki Barghouti
	Build the capacity of MENA NWC in to develop partnerships	<ul style="list-style-type: none"> ▪ Develop institutional tools to support MENA NWC in building partnerships 	FABRI will develop guidelines/manual on how to build partnerships for MENA NWC, design and deliver a training program on partnerships for MENA NWC centers, and develop models of agreement with businesses to be used by MENA NWC.	<ul style="list-style-type: none"> ▪ Manual/guidelines on building partnerships ▪ Training program on partnerships ▪ Template (s) for MOU agreements with general terms and conditions 	January-December 2014	Razan Quossous Peter Reiss

RESULT 2: INTEGRATED WATER RESOURCES MANAGEMENT PROGRAMMING STRENGTHENED

Requirement	Activities	Objectives	Description	Deliverables	Time Frame	Experts (Lead in Bold)
2.1: Strengthen the Legal and Regulatory Framework for IWRM	Develop and Disseminate IWRM Technologies and Practices	<ul style="list-style-type: none"> ▪ Strengthen research capacity and disseminate knowledge in agricultural water use efficiency and productivity 	The PR&D Grants Selection Committee recommended award of the IWRM project “Conjunctive Use of Treated Wastewater and Conventional Water Resources to Sustain Agricultural Production and Mitigate Environmental Pollution: Diagnosis and Optimization,” led by SQU, with partner Centers INRGREF and UJ. The objective of the project is to provide policy, regulatory, and technical guidance to decision makers and practitioners for optimal agricultural production by irrigating with treated wastewater supplemented with conventional water, and using best management practices to control human health and environmental risks.	<ul style="list-style-type: none"> ▪ Grant award ▪ Work plan ▪ Quarterly progress reports 	November 2013 – September 2014	Kenneth Ludwa Peter Reiss Christel Milazzo Bethany Hu
2.2: Implement Methodologies to Improve and Promote Efficient Use of Water	Test Approaches to Integrate Upstream and Downstream Water Users	<ul style="list-style-type: none"> ▪ Promote multiple-use planning in the water sector 	The PR&D Grants Selection Committee recommended award of the project “Developing Partnerships and Innovative Technologies to Improve Water Use Efficiency at River Basin Scale in Jordan, Morocco and Tunisia,” led by INRGREF, with partner Centers NCARE and IAV. The objective of the project is to evaluate the use of water and energy models and decision support tools to guide decisions about water allocation and management, and target investments in water use efficiency.	<ul style="list-style-type: none"> ▪ Grant award ▪ Work plan ▪ Quarterly progress reports 	November 2013 – September 2014	Kenneth Ludwa Peter Reiss Christel Milazzo

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

Requirement	Activities	Objectives	Description	Deliverables	Time Frame	Experts (Lead in Bold)
3.1: Strengthen the Performance of Water and Sanitation Providers	Strengthen the Africa Water Association as Regional Entity	<ul style="list-style-type: none"> ▪ Support AfWA as a technical leader in the Africa Water Sector ▪ Support USAID goals to strengthen regional institutions globally ▪ Establish a long-term vision for AfWA's financial viability 	A key goal of FABRI's Africa Component is to strengthen the technical and management capacities of two regional institutions: AfWA and AMCOW. For AfWA management strengthening, FABRI supported the development of a business plan and a communication and knowledge sharing plan in Conakry in November and the formation of the permanent AfWA Communications and Knowledge Sharing Task Force. For technical strengthening, see below.	<ul style="list-style-type: none"> ▪ Five year business plan for AfWA ▪ AfWA website launch ▪ Presentations at international meetings and conferences 	October 2013-September 2014	Philip Giantris Juliana Filo Peter Reiss Hawa Meskinyar
	Strengthen the AfWA NRW Task Force	<ul style="list-style-type: none"> ▪ Schedule audits ▪ Raise the technical profile of AfWA as a leader and problem-solver in Africa ▪ Introduce program to donors 	FABRI and AfWA will convene a second NRW Task Force member meeting of participating utilities in Mbabane, Swaziland. Audit feedbacks, PIP, MENA/ACUWA partnerships, and managing director, donor, YWP and CKS side meeting at AfWA Congress will be discussed.	<ul style="list-style-type: none"> ▪ Meeting agenda ▪ Meeting technical materials ▪ Audit schedule ▪ Meeting proceedings in English and French ▪ Synthesis Report outline ▪ PIP outline 	Through the period	Peter Reiss Malcolm Farley Hawa Meskinyar

Requirement	Activities	Objectives	Description	Deliverables	Time Frame	Experts (Lead in Bold)
	Conduct NRW Audits and Assist with Planning Performance Improvement for Water Utilities	<ul style="list-style-type: none"> Gain a verifiable understanding of the water loss status in each utility 	FABRI in association with the AfWA Task Force will conduct audits of 21 utilities, including a water balance, institutional assessment, and initial performance improvement plan.	<ul style="list-style-type: none"> Audit reports of each utility participating in the program PIP drafts from each utility 	Through the period	Peter Reiss Malcolm Farley Hawa Meskinyar
	Convene Meeting of Utility Managing Directors	<ul style="list-style-type: none"> Reach agreement on overall program objectives and process 	AfWA and FABRI will convene a meeting of the managing directors of participating utilities to review the results of Phase 1: Audits and discuss Phase 2: Implementation.	<ul style="list-style-type: none"> Agenda for meeting Proceedings of agreements 	April-May 2014	Peter Reiss Malcolm Farley Hawa Meskinyar
	Finalize Utility Performance Improvement Plans	<ul style="list-style-type: none"> Develop a document which clarifies FABRI and utility responsibility for NRW interventions and improvements 	Following the initial round of visits to all utilities to conduct the NRW audits, FABRI and the AfWA Task Force will finalize the improvement plans in consultation with the utilities. The goal is to identify groups of utilities for more efficient and cost effective implementation.	<ul style="list-style-type: none"> Performance Improvement Plan for each participating utility 	July-September 2014	Malcolm Farley Hawa Meskinyar
	Develop Implementation Action Plan	<ul style="list-style-type: none"> Determine Phase 2 interventions 	Using the utility improvement plans as the foundation, FABRI will work with AfWA and donors to develop a program-wide implementation action plan on which to base project interventions and funding commitments.	<ul style="list-style-type: none"> Phase 2 NRW Program Implementation Action Plan 	May 2014	Peter Reiss Hawa Meskinyar

Requirement	Activities	Objectives	Description	Deliverables	Time Frame	Experts (Lead in Bold)
	Coordinate Donor Participation	<ul style="list-style-type: none"> ▪ Increase the program's profile and the commitment of other key sector players ▪ Support the expansion of the program and the role of AfWA as a regional leader 	FABRI seeks to work with bilateral and multilateral donors in order to determine productive and useful financial and technical roles in the NRW Program. Their resources will expand the program geographically, enrich interventions in participating Centers, and provide sustained support following FABRI's close.	<ul style="list-style-type: none"> ▪ Promotional materials ▪ Memoranda of understanding ▪ Joint action plans and reports ▪ Joint presentations at international conferences 	Through the period	Peter Reiss
	Implement the Young Water Professionals Small Grants Program	<ul style="list-style-type: none"> ▪ Provide research and implementation opportunities to young professionals to develop innovations 	FABRI will implement a small grants program under AfWA in association with young water professional (YWP) groups in east, west and south Africa. It will award grants that focus on creative and innovation approaches for non-revenue water reduction, expanding sanitation access and knowledge sharing.	<ul style="list-style-type: none"> ▪ 7-10 small grants awarded in non-revenue water ▪ Support the formation of 6-8 AfYWP national chapters 	Through the period	Peter Reiss Hawa Meskinyar

Requirement	Activities	Objectives	Description	Deliverables	Time Frame	Experts (Lead in Bold)
	Strengthen the African Ministers' Council on Water (AMCOW) as a Regional Entity	<ul style="list-style-type: none"> ▪ Support AMCOW as a technical leader in the Africa Water Sector ▪ Support USAID goals to strengthen regional institutions globally ▪ Support AMCOW knowledge sharing efforts ▪ 	A key goal of FABRI's Africa Component is to strengthen the technical and management capacities to two regional institutions: AfWA and AMCOW. For AMCOW, FABRI will continue supporting two long-term technical staff through a grant. This grant fulfills a commitment made to AMCOW by the U.S. government. In addition, FABRI has been asked to assist in improving AMCOW's knowledge sharing efforts. To that end, the AMCOW director of communications.	<ul style="list-style-type: none"> ▪ Finalized and activated grant agreement ▪ Work plan for two program managers ▪ Meeting reports ▪ Knowledge sharing plan, if requested by AMCOW following Conakry meeting 	Through the period	Peter Reiss Hawa Meskinyar
3.2: Improve the Operating Environment for Water and Sanitation Service Providers	Finalize the Sanitation Program Design	<ul style="list-style-type: none"> ▪ Clarify FABRI's programmatic objectives and role in sanitation in Africa 	Following on the high-profile co-conveners role at Africa Water Week, FABRI will work with USAID, AMCOW, the Water and Sanitation Program of the World Bank and other key players in sanitation in Africa to determine the most useful and effective role it can play.	<ul style="list-style-type: none"> ▪ Program design document 	November 2012-February 2013	Peter Reiss

Requirement	Activities	Objectives	Description	Deliverables	Time Frame	Experts (Lead in Bold)
	Implement the Sanitation Program	<ul style="list-style-type: none"> ▪ Have a pronounced impact on sanitation policy and interventions in Africa ▪ Strengthen AMCOW's leadership role in sanitation 	FABRI will most likely work at a high policy or coordination level in Africa, supporting AMCOW efforts, but USAID will determine its specific role based on donor to donor negotiations.	<ul style="list-style-type: none"> ▪ Reports, analyses and other documents ▪ Presentations at international and national conferences and meetings 	October through September 2014	Peter Reiss
	Implement the Young Water Professionals (AfYWP) Small Grants Program	<ul style="list-style-type: none"> ▪ Provide research and implementation opportunities to young professionals to develop innovations 	FABRI will implement a small grants program under AfWA in association with YWP groups in east, west and south Africa. It will award grants that focus on creative and innovation approaches for non-revenue water reduction, expanding sanitation access and knowledge sharing.	<ul style="list-style-type: none"> ▪ 7-10 small grants awarded in non-revenue water ▪ Support the formation of 6-8 AfYWP national chapters 	Through the period	Peter Reiss Hawa Meskinyar
	Design and Implement a Utility Financial Sustainability Program	<ul style="list-style-type: none"> ▪ Use the NRW Program as the entry point for improved financial sustainability 	FABRI is awaiting instructions from USAID concerning the direction of financial sustainability efforts. Those efforts are likely to focus on NRW since it is as much a financial issue for utilities as it is a technical and operational or management challenge. USAID is currently in discussions with other donors about donor partnerships in this area.	<ul style="list-style-type: none"> ▪ Program design ▪ Action Plan ▪ Reports 	Through the period	Peter Reiss Hawa Meskinyar

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

Requirement	Activities	Objectives	Description	Deliverables	Time Frame	Experts (Lead in Bold)
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	Develop and Disseminate technologies and practices for Efficient, Productive Use of Water in Agriculture	<ul style="list-style-type: none"> Strengthen research capacity and disseminate knowledge in agricultural water use efficiency and productivity 	The PR&D Grants Selection Committee recommended award of the project “Application of Near-Real Time Monitoring Systems for Irrigated Agriculture in MENA,” led by ICBA, with partner Centers INRGREF, SQU, and NCARE. The objective of the project is to Evaluate and demonstrate soil and plant sensors, combined with telemetry, to provide accurate and water-saving irrigation scheduling to farmers.	<ul style="list-style-type: none"> Grant award Work plan Quarterly progress reports 	November 2013 – September 2014	Kenneth Ludwa Peter Reiss Christel Milazzo
	Investigate Food Production Yield Gaps in the Middle East	<ul style="list-style-type: none"> Estimate food production capacity with available water supply Estimate need for additional land and water under different policy scenarios Prioritize research and inform agricultural policies to ensure food and water security Identify causes of yield gaps and locations where 	FABRI awarded a subcontract with University of Nebraska – Lincoln (UNL), to evaluate the food production yield gap in the Middle East and North Africa, using methods previously applied in Africa, Asia, and Latin America. The project will build capacity in yield gap research at three MENA NWC Centers: Institute of Agronomy and Veterinary Science (IAV) in Morocco, INRGREF in Tunisia, and NCARE in Jordan. The project will include training and research activities led by UNL, with the three Centers integrated into research activities.	<ul style="list-style-type: none"> Quarterly progress reports Training program materials 	October 2013 – September 2014	Peter Reiss Kenneth Ludwa Christel Milazzo

Requirement	Activities	Objectives	Description	Deliverables	Time Frame	Experts (Lead in Bold)
		<p>new technologies or technology packages have greatest potential to close them</p> <ul style="list-style-type: none"> ▪ Build capacity in yield gap research at MENA NWC Centers 				

RESULT 5: TRANSBOUNDARY WATER COOPERATION STRENGTHENED IN KEY RIVER BASINS

Requirement	Activities	Objectives	Description	Deliverables	Time Frame	Experts (Lead in Bold)
5.1: Conduct Analysis of U.S. and Regional Transboundary Water Cooperation Programs, with a Focus on the Euphrates, Tigris, and Nile Basins	Carry out Transboundary Cooperation Investigation	<ul style="list-style-type: none"> ▪ Analyze 10 cases of transboundary cooperation to identify best practices and lessons learned ▪ Use the lessons learned to design a transboundary pilot project 	FABRI has subcontracted Oregon State University (OSU) to prepare a report that analyzes transboundary water cooperation, to be used to design a pilot project in the Tigris-Euphrates basin.	<ul style="list-style-type: none"> ▪ Analysis of transboundary cooperation 	December 2014	Peter Reiss Aaron Wolf Jacob Petersen-Perlman
5.2: Produce Report	Finalize Report on Transboundary Water Cooperation	<ul style="list-style-type: none"> ▪ Complete report 	FABRI will work with OSU to complete the report and obtain USAID approval.	<ul style="list-style-type: none"> ▪ Final report 	December 2013	Peter Reiss Aaron Wolf Jacob Petersen-Perlman
5.3: Distribute Report	Disseminate the Report	<ul style="list-style-type: none"> ▪ Disseminate the report widely 	FABRI will distribute the report to a wide audience in the U.S. government and others.	<ul style="list-style-type: none"> ▪ Distributed report 	January 2014	Peter Reiss
5.4: Present Findings of Analysis	Present the Report to USAID and Other Stakeholders	<ul style="list-style-type: none"> ▪ Attain support for the report findings 	FABRI will work with OSU to prepare the presentation.	<ul style="list-style-type: none"> ▪ Presentation to USAID other 	January-February 2014	Peter Reiss Aaron Wolf

Requirement	Activities	Objectives	Description	Deliverables	Time Frame	Experts (Lead in Bold)
5.5: Launch Pilot Project in Key River Basins (i.e., Tigris-Euphrates and Mekong)	Investigation the platform for regional cooperation in the Mekong Basin	<ul style="list-style-type: none"> ▪ Analyze the role of MRC, how members of MRC cooperate on transboundary water management ▪ Use the information to develop a strategy on how USAID's Regional Development Mission (RDMA) for Asia could help strengthen the MRC 	FABRI has recruited an expert to prepare a strategy for RDMA on how to help strengthen MRC. She will carry out investigation on the platform for regional cooperation in the Mekong Basin –MRC.	<ul style="list-style-type: none"> ▪ Strategy developed, approved and implemented 	Strategy developed by November 2013 and finalized in December 2013	Klomjit Chandrpanya
	Identify potential opportunities to build upon RDMA's comparative advantage	<ul style="list-style-type: none"> ▪ Map out donors' projects in the Lower Mekong Basin along the LMI pillars, starting with the water and environment pillar ▪ Use the information to develop a plan for joint capacity building activities with other donors (via Friends of the Lower Mekong) 	FABRI will support RDMA in donor mapping, developing a plan and coordinating with other donors in the Lower Mekong Basin to launch a series of capacity building activities. The expert will identify potential opportunities to build upon RDMA's comparative advantage and leverage the activities of other USG agencies, development partners, regional institutions, national governments and the private sector.	<ul style="list-style-type: none"> ▪ Donor mapping completed, plan developed and implemented 	January 2014 mapping completed Plan developed by March 2014 Activities launched by September 2014	Klomjit Chandrpanya

Requirement	Activities	Objectives	Description	Deliverables	Time Frame	Experts (Lead in Bold)
	Engage with GMS-BF and other stakeholders	<ul style="list-style-type: none"> ▪ Explore the possibility of working with the GMS Business Forum (GMS-BF) ▪ Develop a plan to conduct joint activities with the GMS/BF and other related stakeholders 	FABRI will support RDMA in engaging with the GMS-BF and other stakeholders to develop a plan to incentivize the private sector to consider disaster-sensitive planning and investments.	<ul style="list-style-type: none"> ▪ Working relations and mechanism for working with the GMS-BF established ▪ Report on launching of joint USAID-GMS/BF activity 	October 2013-September 2014	Klomjit Chandrpanya
	Advise RDMA offices on Mekong issues	<ul style="list-style-type: none"> ▪ Advise and assist the RDMA Regional Environment Office (REO) on its Smart Infrastructure for the Mekong Program (SIM) ▪ Advise and assist the RDMA/REO on its Mekong Partnership for the Environment (MPE) program 	FABRI consultant will support RDMA/REO in engaging with national governments in the Lower Mekong Basin on this new program.	<ul style="list-style-type: none"> ▪ Quarterly report on advice and assistance provided to the program 	October 2013-September 2014	Klomjit Chandrpanya

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

Requirement	Activities	Objectives	Description	Deliverables	Time Frame	Experts (Lead in Bold)
6.1: Increase the Technical Capacity of USAID Staff Relevant to Water and Sanitation	Share Results of Utility NRW Audits with USAID / Water Team and Africa Bureau Plus Africa Bilateral and Regional Missions	<ul style="list-style-type: none"> ▪ Raise awareness of the innovative work FABRI is doing in non-revenue water 	FABRI will compile and synthesize the results of NRW audits.	<ul style="list-style-type: none"> ▪ Synthesis report 	June 2014	Kathy Alison Malcolm Farley
6.2: Increase USAID's Visibility and Outreach on Water Issues	Represent USAID at Arab Water Week, the African Water Association Congress, Africa Water Week and other international venues	<ul style="list-style-type: none"> ▪ Raise profile of ▪ Identify potential donors and business partners to expand MENA NWC and AFR programs 	Design and deliver session on USAID / FABRI's initiation and successes of the MENA NWC and AfWA. Sessions will highlight USAID's involvement in the launching of the MENA NWC and AfWA and progress of the grants program.	<ul style="list-style-type: none"> ▪ Session at AfWA Congress and elsewhere 	Throughout 2014	Peter Reiss Kenneth Ludwa

PROJECT MANAGEMENT AND ADMINISTRATION

Activities	Tasks	Description	Outputs	Time Frame	Experts (Lead in bold)
Deliverables and Reporting Requirements	Prepare Quarterly Progress Reports	FABRI will prepare progress reports every three months for submission to USAID.	<ul style="list-style-type: none"> Quarterly Progress Reports submitted to USAID for approval 	October 20, 2013; January 10, 2014; April 10, 2014; July 10, 2014	Bethany Hu Peter Reiss Kenneth Ludwa Hawa Meskinyar Christel Milazzo Klomjit Chandrapanya Megan Delph Razan Quossous
	Write Summary Annual Progress Report and Annual Work Plan	FABRI will write a Summary Annual Progress Report and Annual Work Plan specifying a timetable for implementation of planned activities and deliverables.	<ul style="list-style-type: none"> Summary Annual Progress Report and Annual Work Plan submitted to USAID for approval 	October 31, 2013	Peter Reiss Kenneth Ludwa Hawa Meskinyar Christel Milazzo Klomjit Chandrapanya Bethany Hu Megan Delph Razan Quossous
	Track the Completion of Standards and Deliverables	FABRI will track the completion of the standards and deliverables listed in the contract to ensure that all deliverables are submitted on time.	<ul style="list-style-type: none"> Record of completed standards and deliverables 	Regularly throughout the year	Peter Reiss Bethany Hu Megan Delph
	Submit Deliverables to Development Experience Clearinghouse (DEC)	FABRI will submit all required deliverables to the DEC.	<ul style="list-style-type: none"> Required deliverables submitted to DEC 	Regularly throughout the year	Megan Delph Bethany Hu

Activities	Tasks	Description	Outputs	Time Frame	Experts (Lead in bold)
	Store All Project Records in TAMIS	FABRI will ensure that all project records are stored in the Technical and Administrative Management Information System (TAMIS).	<ul style="list-style-type: none"> All project records stored in TAMIS 	Regularly throughout the year	Megan Delph Bethany Hu
Contracts Management	Hold Weekly Contracts Meetings	FABRI will meet weekly with the DAI Contracts Manager to review the status of all pending contractual actions.	<ul style="list-style-type: none"> Contracting vehicles submitted to USAID for approval 	Weekly throughout the year	Bethany Hu Peter Reiss Megan Delph
	Issue New Subcontracts, Independent Consultant Agreements, and Fixed Price Purchase Orders (FPPOs), as Necessary	FABRI will request the appropriate USAID consent/approval and will issue new subcontracts, independent consultant agreements, and FPPOs, as necessary, to implement project activities.	<ul style="list-style-type: none"> Signed subcontracts, independent consultant agreements, and purchase orders 	Regularly throughout the year	Bethany Hu Megan Delph
	Review and Approve Invoices for Subcontractors, Consultants, and FPPOs	FABRI will review invoices for payment as they are received and submit them to the FABRI COP for final approval.	<ul style="list-style-type: none"> Payments sent to subcontractors, consultants, and vendors for work completed 	Regularly throughout the year	Megan Delph Peter Reiss Bethany Hu
Project Procurement	Procure Office Supplies and Equipment for the Project Office	FABRI will procure office supplies and equipment on an as-needed basis for the project office.	<ul style="list-style-type: none"> Inventory items in the office and ready for use 	Regularly throughout the year	Megan Delph Bethany Hu
Project Financial Management	Submit Monthly Invoices to USAID for Payment	FABRI will compile all costs and send invoices to USAID for payment on a monthly basis.	<ul style="list-style-type: none"> Final invoices submitted to USAID for payment 	Monthly throughout the year	Megan Delph Peter Reiss Bethany Hu

Activities	Tasks	Description	Outputs	Time Frame	Experts (Lead in bold)
	Maintain Overall Project Pipeline	FABRI will maintain a pipeline of overall project spending as well as individual pipelines for all subcontractors and independent consultants.	<ul style="list-style-type: none"> Updated monthly pipelines for overall project, subcontractor, and independent consultant budgets 	Updated monthly throughout the year	Bethany Hu Christel Milazzo Hawa Meskinyar Megan Delph
Travel and Logistics	Organize Travel Logistics and Purchase Plane Tickets	FABRI will organize travel logistics and purchase plane tickets for all FABRI travelers and participants at workshops, conferences, and meetings.	<ul style="list-style-type: none"> Issued plane tickets 	Regularly throughout the year	Megan Delph Bethany Hu
	Audit Employee Expense Reports	FABRI will review and approve expense reports for all FABRI travelers.	<ul style="list-style-type: none"> Approved expense reports 	Regularly throughout the year.	Megan Delph Peter Reiss Bethany Hu
Recruitment and Staffing	Provide Training and On-Boarding for New FABRI Team Members	The FABRI Operations Manager will provide training and on-boarding for all new FABRI team members.	<ul style="list-style-type: none"> Trained FABRI team members 	Regularly as new team members are hired	Bethany Hu
Internal Project Reviews	Hold Quarterly Progress Review Meetings	FABRI will hold Quarterly Progress Review meetings with the DAI home office team to address any issues that come up and ensure that project progress remains on track.	<ul style="list-style-type: none"> Notes from Quarterly Progress Review meetings 	Quarterly throughout the year	Bethany Hu Peter Reiss Megan Delph