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# IMPROVING WATER AND SANITATION SERVICES IN THE MENA REGION (IWSMR)

ANNUAL PROGRESS REPORT YEAR 1 (OCTOBER 2013 – SEPTEMBER  
2014)

INCLUDING THE FOURTH QUARTER (JULY-SEPTEMBER 2014)

October 2014  
Report No. 13

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The author's 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

<b>Abbreviations</b>	<b>Full Name</b>
ACWUA	Arab Countries Water Utilities Association
AfWA	Africa Water Association
BOD	Board of Directors
CAQA	Center for Accreditation and Quality Assurance
CIS	Certification Information System
HBRC	Housing and Building National Research Center
HCWW	Holding Company for Water and Wastewater
EWRA	Egyptian Water Regulatory Authority
IQC	Indefinite Quantity Contract
ISD	Instructional Systems Design
IT	Information Technology
IWSMR	Improving Water and Sanitation Services in the MENA Region
LOA	Letter of Agreement
M&E	Monitoring and Evaluation
MENA	Middle East and North Africa
MOU	Memorandum of Understanding
OMEPA	(USAID) Office of Middle East Programs
PMP	Performance Monitoring Plan
PR	Program Result
RFP	Request for Proposals
RFQ	Request for Quotations
ROCTP	Regional Operator Certification and Training Program
TCN	Third Country National
TIA	Training Impact Assessment
TOT	Training of Trainers
USAID	United States Agency for International Development
VAT	Value Added Tax
WB	West Bank
WWTO	Wastewater Treatment Operator

# 1. INTRODUCTION

## 1.1 Introduction

The MENA region is one of the driest areas of the world and demand for water exceeds available resources. High birth rates and the need for economic, commercial, and agricultural development have exacerbated an already precarious water situation, where water requirements often exceed renewable supplies. To address these critical necessities, regional governments and international donors are investing heavily in water infrastructure rehabilitation and construction of new water and wastewater treatment plants; collection and distribution networks; and related smaller projects. Efficient water facility management, operation, and maintenance; control of non-revenue water and leakage reduction; and, conservation and rationing are helping to make the best use of limited water supplies.

These critical conditions evident throughout MENA dictate more efficient use of water sector infrastructure and personnel. In October 2013, USAID/OMEP launched the 24-month Improving Water and Sanitation Services in the MENA Region (IWSMR) program to enhance water/wastewater engineer and operator performance. Earlier studies and evaluations had identified the need for improved operations and maintenance (O&M) practices, supported by job training regulated by a certification process. By improving operator knowledge and skills, expensive facilities can perform to expected standards and stay in service longer while protecting these large capital investments.

To achieve these objectives, IWSMR is working with the Arab Countries Water Utilities Association (ACWUA) and its members to build capacity and establish a Regional Operator Certification and Training Program (ROCTP). This innovative program introduces a new approach to human resources development in the water sector region-wide, requiring operators to demonstrate job knowledge and skills by passing professional tests, and by granting them state-recognized certification. The program provides standardized training linked to best O&M practices for operator certifications in water treatment and distribution, wastewater treatment and collection, and utility management. A capacity building module offers certified courses in train-the-trainers (TOT); and, curricula and test development emphasizing on-job application of practical skills. The program closes O&M knowledge and skills gaps contributing to improved O&M performance at plants and network facilities as well as greater self-esteem for licensed managers, engineers and technicians.

## 1.2 Project Background

The IWSMR program provides technical and capacity building resources to ACWUA to support the development and delivery of regionally recognized water and wastewater operation certifications. The IWSMR program is being implemented in close coordination with USAID and other donors in the sector that aim to improve water supply and sanitation services in the Middle East and North Africa (MENA) region. To achieve this objective, the IWSMR program is providing technical expertise and assistance around the following three activities:

### Operator Certification

**Water/wastewater operator:** manager, engineer, or technician who has direct responsibility in a water/wastewater facility that safeguards public health, the environment, and infrastructure.

**Operator certification:** the legal process by which a duly constituted body establishes minimum professional standards for the O&M of public water/wastewater systems and assesses the qualifications (education, experience), and job knowledge (written examination results) of operators to determine if all specified requirements are satisfied.

- Building the capacity of ACWUA to enable it to achieve its mandate to promote certification of water and wastewater utility professionals and accreditation of associated programs.
- Evaluating the feasibility of, and developing and implementing a mechanism to effectively expand existing water and wastewater operator certification programs in Jordan and/or Egypt to a regional scale.
- Leverage regional USAID-funded improvements in water and wastewater utility management and operation by exploring training opportunities (such as utility twinning “Knowledge Exchange”) to encourage information and best practice sharing in the MENA water and wastewater industry.



### 1.3 Annual Progress Report - Summary of Major Activities in Year 1

The IWSMR program initiated an ambitious agenda for Year 1 optimizing its limited time and resources to rapidly build consensus, assess conditions, develop work plans and successfully implement a broad array of capacity building, sector coordination and operator training activities.

*Consensus building* – IWSMR kicked-off Year 1 in October 2014 with intensive coordination sessions with ACWUA and USAID to ensure full coverage of the IWSMR contract requirements within the context of the ACWUA organization and the MENA environment. As Chemonics had been the prime contractor of the Jordan Operations and Maintenance Training (OMT), the Egypt Water Policy and Regulatory Reform (WPRR) and the Egypt Water/Wastewater Sector Support (WWSS) projects; the Chemonics team was able to capitalize on its detailed understanding of the foundation of the IWSMR program and the close working relations with ACWUA leadership to accelerate formalizing key aspects of the proposed ROCTP approach.

*ACWUA and its members agree to recognize...*

**“...the need to expand the deployment of the Water Operators Certification Program implemented by the Arab Countries Water Utilities Association for water operators in the Arab water utilities.”**

*Excerpt from ACWUA’s “Algeria Declaration,” at the conclusion of the 6th Best Practices Conference in Algiers, December 4, 2013*

Therefore, IWSMR, ACWUA and USAID were able to quickly establish consensus on a ROCTP approach, as fully described in the Components section of this report, which leverages the accomplishments of the OMT, WPRR and WWSS projects while providing a platform for the continued development of ACWUA

capacity, the expansion of operator certification among ACWUA member countries and the related improvements in the O&M at regional W/WW facilities. This approach which was endorsed at the ACWUA conference in Algiers (box above) features the following:

- Use of the Jordan system as the Interim Certification Platform with the Center of Accreditation and Quality Assurance (CAQA) recognized as the legal authority issuing certificates in accordance with CAQA standards and requirements
- Implementation of ROCTP at pilot utilities in three ACWUA member countries with scale-up based on experience and lessons-learned
- The training and testing materials developed, evaluated and refined by the Jordan OMT project will be utilized on an interim basis by ACWUA
- A Regional Operator Certification Task Force comprised of responsible Jordanian and Egyptian representatives will be established to address optimizing the programs in use in each country
- To contribute to ROCTP sustainability, participating utilities will become self-sufficient in conducting training by using their own employees who have completed and passed a standardized training of trainers (TOT) course to promote affordable ROCTP costs/fees

*Assessment-driven strategy* – In Year 1, IWSMR, with ACWUA participation, conducted and completed Stage 1 of a comprehensive assessment of ROCTP related demand and issues as a basis of decision-making concerning program interest among ACWUA members with emphasis on pilots in West Bank, Lebanon and Yemen; program design including distance-learning and twinning options; and related challenges and recommendations. The Assessment Report – Stage 1 was delivered on time in January 2014.

Stage 2 of the assessment will be conducted in Year 2 and will support the development of the ACWUA Training Roll-out Plan for implementation by ACWUA in Year 2 and the period immediately after the IWSMR project phase out.

*Carefully coordinated planning and budgeting* – Based on the Assessment-Year 1; IWSMR, ACWUA and USAID conferred and agreed to Work and Performance Monitoring Plans for Years 1 and 2 including associated Implementation Plans (Annex A).

#### **1.4 Implementation – Component Accomplishments Summaries**

##### **Component 1. Build ACWUA Capacity**

- ACWUA Strategic Business Plan – A “bridging memo” to update the current ACWUA business plan for 2010-14 emphasizing ROCTP was delivered in January and approved in May 2014. A working group of ACWUA board members was established to participate with



IWSMR in developing the ACWUA Strategic Business Plan for 2015-19. This process included completion of a survey questionnaire and a series of meetings to review drafts. As of the end of Year 1, the final draft of the business plan was in the ACWUA approval process with conclusion expected in October 2014.

- Certification Information System (CIS) – The ACWUA/IWSMR team collaborated closely to develop CIS specifications that formed the basis of a local procurement of a customized CIS software product. As of the end of Year 1, the CIS activity was on schedule with software testing underway. The CIS is planned to be fully operational and in use by ACWUA in November 2014 (*See below screen shots of CIS Development*).

The screenshot displays the ACWUA Employee Information System (EIS) interface. The header includes the ACWUA logo, a language selector (English/Arabic), and user information (Welcome acwua\_admin@acwua.org, All companies, Change Password, Logout). The navigation menu includes Admin, Operators, Self service, Procedures, Reports, and Security. The breadcrumb trail shows 'You Are Here: Home | Operators | Add/Edit employee'.

The main content area is titled 'Employee general information' and contains a form with the following fields:

- Code: JOR1 (Retrieve employee record)
- First name (\*): حسن
- Second name: جبريل
- Third name: حسن
- Fourth name:
- Family name (\*): الدنان
- First name in English: Hasan
- Second name in English: Jebriil
- Third name in English: Hasan
- Fourth name in English:
- Family name in English: Aldanan
- Employee designation: - Select -
- Job title (\*): مشغل ثاني - شبكات توزيع مياه
- Manager Code:
- Manager: - Select -
- Utility (\*): Jordan Valey
- Organizational unit (\*): - Select -
- Unit: ISS Business
- Division:
- Department:
- Employment date (\*): 1/5/2013
- Permanent date: 10/5/2013
- Section:
- Career path: المسار المهني للموظف الحاصل على الدرجة الجامعية الاولى في تخصص هندسي ذي صلة

A 'Save' button is located at the bottom left of the form. A green arrow icon points to the left. A message at the bottom states 'Fields marked with an asterisk (\*) are required'.

On the right side, there is a profile picture of Hasan Jebriil Hasan Aldanan. Below the photo, the name and ID are listed: Hasan Jebriil Hasan Aldanan, JOR1. Below that, there is a language selector (English/Arabic) and the name 'Miyahona'. There is an 'Upload' button and a 'Choose File' button. A message below the upload area states 'File uploaded successfully!'.

The screenshot shows the 'Add/Edit Course offering' form in the ACWUA HRMS. The form is titled 'Course offering' and contains the following fields:

- Required course (\*): مستلزمات تقنية المياه المستوى 1
- Course cost: 100
- Course instructor (\*): Ahmad
- Start date: 05/10/2014
- Expected end date: 16/10/2014
- Location: Egypt
- Number of allowed operators: 22

Buttons: Save, Clear

Fields marked with an asterisk (\*) are required.

- Capacity Development and Certification Unit – ACWUA requested that this activity be triggered by approval of the ACWUA Strategic Business Plan 2015-19. During Year 1, preliminary discussions were underway to determine the mission and structure of this new ACWUA unit emphasizing that it is critical to the effective and efficient delivery of ROCTP services to members and to program sustainability.
- Responsibility determination – This high-priority activity proceeded quickly and smoothly during Year 1 with completion of a survey of ACWUA finance and management systems by a local firm in June 2014. At the end of Year 1, IWSMR was assisting ACWUA in making improvements to their systems and related manuals to be further reviewed by USAID in Year 2. Securing the responsibility determination is a validation that ACWUA is worthy of receiving continued support from USAID and will also encourage other interested donors to provide support to ACWUA. With this status, ACWUA will be well positioned to request the support necessary to ensure both adequate resources for ACWUA activities and long-term ROCTP sustainability.

## Component 2. Regional Water and Wastewater Operator Certification Program

- Assessment – In January 2014, IWSMR delivered Assessment Report - Stage 1 which provided a comprehensive evaluation of ACWUA capacity to deliver ROCTP, approaches to scale-up ROCTP, and, improving utility performance through knowledge exchange and twinning methods. While the Stage 1 report emphasized data collection from pilot countries; Stage 2, to be completed in Year 2, will cover all interested ACWUA member countries and will be the basis for the ACWUA Training Roll-out Plan.
- Interim Certification Platform – As described above, early in Year 1 ACWUA agreed to use and abide by the current Jordanian certification process as implemented by the Center for Accreditation and Quality Assurance (CAQA). In taking this critical decision, the ACWUA/IWSMR team was able to accelerate implementation of 4 TOT events in Year 1 and agree to implement 3 pilot operator courses and 4 training-of-trainers/ISD/UM courses in Year 2.

***“We have greatly benefited from the TOT course. I am using a big part for courses I currently deliver. All who passed the certification test and got the license should start a branch in Iraq for the purpose of communication, training, and development of programs.” TOT Trainee, Ministry of Water, Baghdad, Iraq***

- Training Course Report- Please see Annex G for a list of IWSMR/ACWUA trainings conducted during Year 1 and planned for Year 2.

### Component 3. Utility Twinning and Leveraging Best Practices

- Although no activity was planned for Component 3 during Year 1, knowledge exchange was evaluated in Assessment Report - Stage 1 including making contact with organizations experienced in twinning for further coordination and sharing of lessons-learned.

#### *Performance Monitoring*

- Performance Monitoring Plan (PMP) Tracking – The IWSMR PMP was developed jointly with ACWUA and was submitted and approved as part of the work planning process. Year 1 results can be found in Annex B. The PMP contains indicators for all IWSMR program and intermediate results.
- Training Impact Assessment (TIA) – This approach was developed during the USAID/Jordan OMT project, adopted by ACWUA and implemented during IWSMR Year 1. It is a comprehensive method of tracking O&M performance improvement at participating utilities by collecting both quantitative operational and financial performance data as well as qualitative pre and post training opinion-based data from ROCTP certified operators and their supervisors. A summary of TIA Year 1 reporting can be found in Annex B.

### **1.5 ACWUA and ROCTP Sustainability**

- Self-sufficient Training Model – The ACWUA adoption of a training model that makes each participating utility qualified to offer recognized accredited operator training using their own trainers is a clear demonstration of ACWUA’s commitment to sustain ROCTP. ACWUA is providing training of trainers courses to all participating utilities so that training costs can be minimized by utilities using their own training staff. In addition, ACWUA is providing the USAID-funded training materials to each utility at no cost and is simply charging fees that are affordable to utilities to cover ROCTP administrative and coordination expenses. This cost-effective model promotes self-sufficiency at each participating utility and substantially overcomes the challenge of high training costs typically faced by these utilities.
- Responsibility determination – As described above, this responsibility determination is critically essential to the future of ACWUA and ROCTP sustainability, as it will facilitate ongoing USAID and donor support. Securing this determination has been a top-priority during Year 1 and ACWUA has been fully cooperating with the process. ACWUA financial and management systems and associated manuals will be complete in November 2014 with a realistic target of USAID approval early in Year 2. Accomplishing responsibility determination will be a major contributor to ACWUA and

ROCTP sustainability and a key IWSMR project result.

- Training Roll-out Plan and Training of Trainers – The ROCTP scale-up is a gradual process initiated by supporting the three currently planned pilots in the West Bank, Yemen and Lebanon. In Year 1, the ACWUA IWSMR team drafted a MOU for ROCTP Pilots to ensure management commitment and overall buy-in from participating pilot utilities. This MOU will continue to be used as ROCTP expands to additional MENA countries and utilities. Planning for the continued expansion of pilots to additional countries will be associated with assessment activities scheduled for Year 2 and the multi-year Training Roll-out Plan for ACWUA implementation which will include all interested ACWUA countries and utilities. The plan will ensure that an adequate number of certified operators who have also completed TOT are available to drive the expansion on a self-sufficient cost-effective basis. In preparing the Training Roll-out Plan, ACWUA and USAID will be aware of the resources required for ROCTP sustainability.
- Certification Testing – To ensure timely, cost-effective and sustainable administration of ROCTP certification tests, ACWUA and IWSMR will explore alternatives for test administration/proctoring currently exclusively conducted by CAQA for TOT and ROCTP pilots. As the number of training events increases, CAQA has already indicated difficulty keeping up with the demand. Costs for CAQA testing are also rising due to need for additional time in country for the testing process. NGOs such as AMIDEAST as well as local universities that already conduct exams such as the SAT and TOEFL should be considered to share the testing burden with CAQA.

***“The certification test was real and created a spirit of determination and seriousness.”*** TOT trainee - Project Manager, Palestinian Hydrology Group, West Bank
- Training Impact Assessment – The TIA approach developed during the USAID/Jordan OMT project and adopted by ACWUA tracks key management, financial and technical indicators to demonstrate O&M performance improvement at participating utilities. Achievement of concrete O&M results attributable to ROCTP will provide evidence-based proof of ROCTP results and this proof of return on investment will contribute to long-term ACWUA and ROCTP sustainability.
- Inclusion of Women and Youth – ACWUA is committed to a target of 25% female ROCTP trainees as well as innovative measures to involve young engineers and technicians. This inclusive approach will garner broad support as greater numbers of women and youth are enrolled contributing to ACWUA and ROCTP sustainability.

***“The TOT training course was great and worked as a motivator to develop the personal, scientific, and language skills for all participants.”*** Female Trainee, Design and Planning Department, Sana’a, Yemen

- Continuous Improvement based on Lessons Learned from Pilots – By implementing a flexible interactive training approach based on conducting pilots and fully engaging participating utilities via formal written Regional Operator Certification MOUs, ACWUA is well positioned to leverage lessons learned from their ROCTP training experience and make changes necessary to improve training impacts, management and service quality leading to increased demand and thus long-term ROCTP sustainability.



ACWUA is committed to a target of 25% female participants for IWSMR training activities.  
TOT/West Bank, August 2014

## 1.6 Recommended Actions for Year 2

The following are the key actions for priority ACWUA/IWSMR attention and completion during Year 2. Detailed activities for immediate implementation in Quarter 5 are included in Part 3 of this report.

- Carry out approved Implementation Plan for Year 2 – In September 2014, USAID approved the IWSMR Work Plan – Year 2 which contains the updated Implementation Plan for the final year of the IWSMR project. This version of the Implementation Plan was developed with the full understanding and cooperation of ACWUA and is based on consensus to accomplish all planned activities as scheduled and within IWSMR budgetary constraints.
- Approve ACWUA Strategic Business Plan 2015-19 – Complete actions necessary for ACWUA board approval of this plan emphasizing adoption of ROCTP as a new ACWUA strategic objective and a significant new ACWUA revenue stream for the coming five years.
- Follow-up the USAID Responsibility Determination – This is a top-priority activity that is a key to ACWUA and ROCTP sustainability.

- Intensify ACWUA promotion of ROCTP – With approval of the ACWUA Strategic Business Plan 2015-19, encourage greater board participation in promoting achievement of all ACWUA objectives especially ROCTP implementation. Actively publicize the affordability of ROCTP fees using the ACWUA web-site, conferences and events.
- Fully implement CIS and disseminate to ACWUA member utilities – In Year 2, the CIS will be in full operation by ACWUA and will contain all training data relevant to ROCTP and capacity building courses. Priority will be placed on disseminating CIS access to ACWUA member utilities participating in pilots as well as operators and TOT trainees so that they can take full advantage of this information sharing system.
- Establish and develop ACWUA Capacity Development and Certification Unit – Given ACWUA support of ROCTP, ACWUA is committed to establishing a new unit within the current ACWUA structure for capacity building (TOT, ISD) and ROCTP. ISWMR will assist in organizing and training staff assigned to this unit to ensure responsive and efficient service delivery to ACWUA members.
- Explore alternatives for test administration/proctoring currently exclusively conducted by CAQA for TOT and ROCTP pilots - NGOs such as AMIDEAST as well as local universities that already conduct exams such as the SAT and TOEFL should be considered to share the testing burden with CAQA.
- Continue to leverage existing programs in Jordan and Egypt – The synergy of certification activities in these two countries demonstrates how other ACWUA member countries can take advantage of existing programs to establish their own national operator certification schemes. Completion of technical studies currently underway by the Jordan/Egypt Task Force will provide valuable direction on future program coordination.
- Continue to explore opportunities for women and youth – As unemployment continues to challenge most ACWUA member countries, identification of greater opportunities for women and young professionals and technicians in the water/wastewater sector takes on increased importance. IWSMR and ACWUA efforts during Year 2 will determine realistic and cost-effective means for ACWUA to promote employment and promotion of MENA women and youth throughout the sector.
- Study effective and appropriate uses of distance-learning – As more ACWUA members obtain reliable internet connectivity, during Year 2, IWSMR and ACWUA will identify means to extend the utilization of existing donor-funded platforms to offer ROCTP in various practical distance-learning modes. ACWUA will continue to leverage its relationships with California State University

***“The integration of Jordanian/Egyptian operator certification programs is the most challenging and important component for all Jordanian and Egyptian water and wastewater utilities and involved agencies. This is the first time the Operator Certification Program has been raised to a regional level and in compliance with CAQA standards.” Secretary General, ACWUA***

Sacramento (CSUS), Association of Boards of Certification (ABC), and other international associations regarding their guidance and potential support for distance-learning options.

- Conduct twinning pilots and evaluate results – As per the approved Implementation Plan, IWSMR and ACWUA will implement five virtual twinning activities, implementing two of them on a multilateral basis and supporting ACWUA in implementing the other three activities depending on the outcome/results of the first two. In addition, ten more potential twinning activities will be identified during Year 2. The MOU for Pilots will be used to set mutual terms and TIA methods will be used to assess results.
- Support ROCTP Sustainability – Within the final year of the project, the IWSMR/ACWUA team will develop a realistic and practical plan to ensure continued ROCTP scale-up using pilots in new countries based on use of agreed MOUs and further ROCTP expansion in the three countries where operator certification was initiated by the project. Financial planning to secure sustainability will be an essential part of this process.
- IWSMR Project Completion - Demobilization, Close-out and Reporting – As per contract, during the final quarter of Year 2, IWSMR will develop, deliver and implement all actions required for an orderly phase-out and project completion.

## 2. PROGRESS BY COMPONENT

This section reports on the accomplishments of the activities as presented in the approved IWSMR work plan. Annex A – IWSMR Implementation Plan Timeline contains a summary table that shows planned activities and progress cumulatively.

### 2.1 Component 1 – Build ACWUA Capacity

#### ***Update ACWUA strategic business plan***

This activity has two stages: first, to revise the 2014 part of the current Strategic Business Plan (2010 – 2014) to emphasize the new ACWUA Regional Operator Certification and Training Program, and second, to develop the ACWUA Strategic Business Plan for 2015-2019 working closely with the ACWUA Board of Directors. The output of the first stage was a “Bridging Memo,” which serves as a link to the next five-year plan and increases the ACWUA emphasis on certification (see box). This ACWUA commitment is essential to the long-term sustainability of the ROCTP.

The “Bridging Memo” was drafted in cooperation with ACWUA personnel, and included as an annex to the Assessment Report which was submitted to USAID on January 31, 2014. The memo was updated in May 2014 to reflect the final adjustments to the joint IWSMR-ACWUA Implementation Plan (Annex A) made in Quarter 2, and its activities were immediately underway.

IWSMR development of ACWUA’s Strategic Business Plan for 2015-2019 began in Quarter 1 and is scheduled to conclude in Quarter 5 (October – December, 2014). During Year 1, ACWUA formed a business planning committee composed of five members of its Board of Directors, from the West Bank, Egypt, Lebanon, Jordan, and Tunisia. The IWSMR business planning consultant has been working closely with this committee, which has been empowered by the Board of Directors to develop and approve the new strategy. The first business planning committee meeting was held in Amman from June 17 – 18 and facilitated by the IWSMR business planning consultant. All but the Tunisian representative attended the committee meeting and had a fruitful discussion.

Outputs of the meeting included a consensus agreement on the broad strokes of the plan comprising the ACWUA vision and mission statements as well as updated strategic objectives for the next five years, including a new objective for the establishment, support and sustainability of the ROCTP.

*Quarter 4* - Work on the draft strategic plan continued in Quarter 4 in accordance with the implementation plan timeline. A draft of the business plan and budget/financial model was completed in September based on active ACWUA involvement in August when the IWSMR consultant was able to meet with ACWUA Board members at a previously-scheduled ACWUA event. At the end of Year 1, final adjustments to the plan were underway with ACWUA committee review and approval planned for October.

#### **ACWUA Incorporates Operator Certification into its Strategy**

*Facilitated by IWSMR, a 2014 update to ACWUA’s current business plan (2010 – 2014), centers on the addition of a new strategic objective:*

***“To disseminate the operator certification and training culture in the MENA region and to broaden its application through facilitating such services and making them available to utilities at minimum cost and maximum efficiency.”***

#### **ACWUA Vision Statement 2015 – 2019 Business Plan**

***“ACWUA, as an international center of excellence, will partner with water supply and wastewater utilities in Arab countries to build their capacities and reinforce the application of best practices in order to achieve their stated goals.”***

*(Translation from draft BP in Arabic)*

The ACWUA strategic business planning process is a critical element in ensuring the long-term sustainability of the ROCTP. The approved business plan will be a concrete demonstration of ACWUA board commitment to standardized operator certification and training throughout the MENA region. This emphatic inclusion of ROCTP in the ACWUA strategy provides a solid basis for on-going support from USAID and will serve to attract assistance from other interested donors.

**Develop a Certification Training Information System (CIS)**

The intent of the proposed CIS, as outlined in IWSMR’s scope of work and work plan, is to enable ACWUA to track training and certification programs, utilities, trainees, and trainers throughout the region while allowing operators to peruse training options and store training and certification records.

Detailed parameters for the proposed system were outlined jointly by IWSMR and ACWUA during the assessment phase and included in the Assessment Report submitted in January 31 (see box).

<b>Proposed CIS Parameters - Outline</b>	
•	Certification Framework and Courses
•	Country Profiles
•	Utility Profiles
•	Training Administration (Enrollment, Trainer Records, Test Records, etc.)
•	Collaboration Tools (Calendar, Wiki, Blog, etc.)
•	Reports and Tracking

The system specifications were further refined in a draft Request for Proposal in March, which was finalized and released to Jordanian IT firms. An RFP was released to three Jordanian IT firms in April 2014. All three firms submitted bids by the May 8 deadline, however only two firms met the technical criteria. After a competitive range with the two qualifying firms, IWSMR completed a best and final negotiation with a single firm and arranged multiple demonstrations of the system with ACWUA personnel, who provided useful feedback throughout the sessions. A CIS contract was then signed with Integrated Standard Solutions on June 24, ahead of schedule.

Quarter 4 - CIS design and development began in Quarter 4 and all milestones as outlined in the subcontract (see box) have been completed on time. At the end of Quarter 4, the CIS was being tested by IWSMR and ACWUA personnel.

The CIS web-based system requires MSSQL server software. Although MSSQL Server Express was previously installed on the ACWUA server, this edition will not properly run the CIS. After consulting the CIS developer contractor, and to avoid future performance problems, it was concluded that the CIS will best run with MSSQL Standard Edition server software. IWSMR will compete and procure the upgraded MSSQL that is compatible with CIS and ensure installation on ACWUA’s server.

<b>CIS Development Expected Milestones</b>	
• Software designed	July 27
• Software programmed	August 24
• ACWUA hardware and server upgraded	August 28
• Software tested	September 30
• Software installed; technical report submitted	October 12
• ACWUA staff training concluded	October 16
• CIS operational	November 13

The CIS software is expected to be fully operational as per schedule in November 2014 at which point and IWSMR/ACWUA team will begin populating the system with the required training data. An organized and automated training management system such as the ACWUA CIS will make a strong contribution to ROCTP

sustainability by allowing member countries, utilities and operators to efficiently monitor the credentials of technical employees and ensure full and long-term compliance with certification policies at their water/wastewater treatment and network facilities and as enforced by CAQA/Jordan, the recognized interim regional certification authority.

***Determine the institutional requirements needed to establish a Capacity Development and Certification Unit within ACWUA***

Developing the capabilities of ACWUA to effectively manage and operate ROCTP and related capacity building is essential to the reputation of the ACWUA ROCTP and its long-term sustainability. Smooth and efficient management of the ROCTP will encourage greater participation among ACWUA members from pilot countries and members contemplating implementation of ROCTP at their water and wastewater facilities.

As a key part of the business planning process, ACWUA is reviewing its overall organizational structure and human resources to guarantee that adequate and appropriate staff is assigned to a new ACWUA Capacity Development and Certification Unit and receive job training. This unit will be responsible for the day-to-day management and operation of the ROCTP.

*Quarter 4-* At the request of ACWUA, this task will be undertaken when their new organizational chart is developed as part of the business planning process. The new timeline for this task will be reflected in updates to the Implementation Plan.

***Request a USAID pre-award survey to obtain a responsibility determination of ACWUA management systems***

In accordance with Section 2.1.3 of the Task Order Scope of Work, upon discussions with USAID in February 2014, it was agreed that the best mechanism for this activity was an IWSMR-tendered contract to a USAID/Jordan approved auditing firm. Given its long history of grants (and sub-grants) to Jordanian institutions, USAID/Jordan recommended a short list of qualified local firms in March, 2014. IWSMR developed and released an RFQ to three firms on March 19, 2014 and received bids in the closing days of Quarter 2.

In Quarter 3, a competitive range was concluded, and negotiations proceeded with PricewaterhouseCoopers before a contract was signed with them on May 14. The scope of this activity requires the selected contractor to objectively evaluate ACWUA's financial and management systems and submit a report to IWSMR and USAID. Based on the report's findings, IWSMR will work with ACWUA to address any deficiencies and then submit a responsibility determination to USAID. This is a pre-requisite to any direct USAID grants, which is a valuable element in ROCTP sustainability.

PwC concluded their non-US organization pre-award survey (NUPAS) of ACWUA on July 23, working closely with ACWUA personnel throughout the process. Their draft report, submitted on July 23, detailed areas where ACWUA's systems were adequate for managing USAID funds and other areas recommended for improvement. Noted shortcomings included documentation of existing accounting practices and weaknesses in selected internal control systems, such as segregation of duties. ACWUA responded to the

recommendations on July 25, and their responses, including a detailed action plan and specific time frame for implementation of the recommendations, were incorporated into PwC's final report, submitted in July.

IWSMR is committed to supporting ACWUA in making the necessary improvements, including an update to their financial manual, development of a new project management manual, and the adjustment of various human resource and other internal processes to incorporate proper segregation of duties for an organization of ACWUA's size. The action plan includes activities throughout the remainder of 2014. The Office of Middle East Programs, in coordination with the USAID/Egypt Contracting Office, intends to evaluate ACWUA as soon as updates to ACWUA's Financial Manual have concluded, in order to assess progress against the NUPAS recommendations and make the responsibility determination.

**Action Plan Updates to ACWUA's internal systems facilitated by PwC and IWSMR:**

1. NUPAS Implementation Checklist created August 24, 2014
2. Draft ACWUA Financial Manual by November 09, 2014
3. Final ACWUA Financial Manual delivered November 27, 2014
4. Presentation of updated Financial Manual to ACWUA on November 30, 2014

*Quarter 4* - IWSMR initiated a subcontract with PwC to procure assistance to ACWUA in making the necessary changes to the Financial Manual and, in developing a Project Management Manual for use by ACWUA in managing donor-funded activities.

Securing the responsibility determination is a validation that ACWUA is worthy of receiving continued support from USAID and will also encourage other interested donors to provide support to ACWUA. With this status, ACWUA will be well positioned to request the support necessary to ensure both adequate resources for its activities and long-term ROCTP sustainability. As such, the responsibility is one of the key outcomes of the IWSMR project and therefore is being treated as a top-priority.

## **2.2 Component 2 – Regional Water and Wastewater Operator Certification Program**

### ***Certification assessment and market analysis***

As reported previously, the assessment was divided into two stages to reflect a realistic application of program resources within the 24-month IWSMR timeframe. Stage 1, completed in January and documented in the Assessment Report submitted in January and in its final form at the end of March, focused on the countries and elements directly related to the early implementation of three training pilots. Stage 2, scheduled in the approved Implementation Plan - Year 2, will gather data from other interested ACWUA members for consideration in the ACWUA Training Roll-out Plan to also be delivered in Year 2.

The Stage 1 assessment questionnaires were distributed in the Quarter 1 to all member countries. Questionnaires from pilot countries were collected, analyzed, and incorporated into the Assessment Report and Implementation Plan. In Quarter 2, raw data were also provided to ACWUA in soft copy format for eventual inclusion in the new Certification Information System. Collected data and information from the questionnaires confirmed no existing in-country initiatives to establish certification schemes, and no

**Assessment Questionnaire Sections**

1. Legislative Dimension (country level)
2. Training Resources (utility level)
3. Training Demand (utility level)
4. Training Supply (utility level)
5. Twinning Partnerships (utility level)

constraints preventing the recognition of CAQA-issued certificates. Results also confirmed availability of training facilities in Palestine and Lebanon, but not in Yemen, and ability to pay on the part of the West Bank utility, but not the others.

In Quarter 3, the questionnaire for this stage was finalized and circulated, data from ten countries was collected, and IWSMR and ACWUA staff continued to follow up on the questionnaires from the remaining nine countries, which include the Gulf States, Syria, and Algeria. The data collected in Stage 2 will be analyzed in Year 2, and combined with the lessons learned from the pilot operator certification courses to propose the ACWUA Training Roll-out Plan before the end of the IWSMR Program.

*Quarter 4* –Efforts continued to obtain data from the remaining ACWUA member countries with the following providing the requested data: Syria, Algeria, Bahrain, Qatar, UAE, Saudi Arabia, and Kuwait. IWSMR also considered further revisions to the questionnaire to focus on twinning. It was agreed that a follow-up questionnaire would be developed and distributed to those countries who expressed an interest in participating in twinning when responding to the original survey.

The ACWUA Training Roll-out Plan is the most important output of the two-stage assessment process. ACWUA will implement this plan with initial support from IWSMR and ACWUA will continue the implementation beyond the end of the IWSMR project. This plan will provide a realistic number of ROCTP activities to continue in the first three pilot countries and expand ROCTP to new pilot countries based in the results of Assessment Stage 2. The ACWUA Training Roll-out Plan will provide a platform for scale-up of ROCTP at a sustainable pace based on prevailing financial considerations and the degree to which USAID and other donors continue their support.

### ***Formulate a market based, sustainable, regional training and certification approach***

As detailed in the Assessment Report, the groundwork for a regional certification program was laid by USAID work in Jordan and Egypt, and by ACWUA's endorsement of the program among its members throughout the region (see box below).

The regional certification approach proposed by IWSMR is outlined in the Assessment Report and is summarized as follows:

- Jordan's Center for Accreditation and Quality Control (CAQA) as interim testing and certifying agency, until country-specific certification frameworks are established. CAQA has agreed to certify non-Jordanians who comply with CAQA requirements. Therefore eventually more than one certifying authority is expected with Egypt being the next to offer services regionally.
- Use of the Jordanian training program for pilots and in the interim, until country-specific programs (competencies, training courses, tests, etc.) are established or until countries have adopted ACWUA programs. Once country-specific frameworks are in place, after the conclusion of IWSMR, ACWUA will facilitate the development of training programs to the maximum possible extent.
- Launch of the Regional Operator Certification Task Force, composed of representatives from existing programs in Jordan and Egypt, along with IWSMR and ACWUA personnel, to assess the programs in Jordan and Egypt and update them for regional application.

- Minimizing cost to utilities by: 1) promoting use of internal (utility) trainers; 2) providing USAID-funded training materials via ACWUA at no cost to the trainees, and 3) controlling operating costs of training events and, thus, ACWUA administrative and coordination fees.

During Quarter 3, IWSMR developed the task force terms of reference (TOR) and agreed upon it with ACWUA before officially establishing the task force and nominating its various members in May, 2014. Members include representatives from:

- The Holding Company for Water and Wastewater Egypt
- The Housing and Building National Research Center Egypt (HBRC)
- The Center for Accreditation and Quality Assurance Jordan (CAQA)
- ACWUA
- IWSMR

This preparatory activity which focused on establishing the interim regional certification platform for the duration of IWSMR, was concluded with the signing of the MOU by the ACWUA, CAQA, and IWSMR.

In June, 2014 (Quarter 3), IWSMR staff facilitated the first meeting of the Task Force in Amman, which was attended by all members with the exception of the representative from the Egyptian Holding Company for Water and Wastewater. The two-day session featured presentations by all members covering: the purpose of the Task Force; summaries of the existing certification programs in Jordan and Egypt, including the respective policy frameworks; a comparison of the two programs; and, a discussion of reciprocity between the two programs. The meeting culminated with agreement on the recommended next steps (see box above), which were facilitated by IWSMR in Quarter 4.

*Quarter 4* - The second task force meeting took place in September in Amman, Jordan and the two sub-committees reviewed the draft technical report prepared by IWSMR. The meeting concluded with the signature of summary conclusions as follows:

1. The task force members agreed on the importance of the integration of the two operator certification programs for water and sanitation services that are applied in Jordan and Egypt.
2. All parties expressed their desire to cooperate as follows:
  - Cooperate in the certification programs for water and sanitation services through ACWUA

**Task Force, Meeting 1  
Recommended Next Steps**

1. Establish two sub committees to study the Egyptian and Jordanian programs – legal and technical.
2. Modify the Jordanian and the Egyptian Certification Programs accordingly.
3. Draft MOUs between ACWUA and CAQA and between ACWUA and HBRC to modify both programs.
4. Propose amending the Egyptian program to target both operators and engineers.
5. Update Task Force data on the Egyptian program in accordance with the delegation's presentation.

- Exchange the training materials and the training competencies for both countries
- Implement certification tests (passing standard) according to the legislation in force in each country

3. Agreement to sign memorandums of understanding among the concerned parties.

The task force presented and discussed the final technical report and the related MoUs in Jordan on Sep 17-18. The meeting concluded with the terms of the final MoUs negotiated and agreed to by the Egyptian Housing and Building National Research Center (HBRC), the Holding Company for Water and Wastewater (HCWW), and the Egyptian Water Regulatory Agency (EWRA). Final counter-signature of the MoUs for proceeding with the two programs will be achieved in Quarter 5.

The outputs of the task force, in addition to the information gathered for the Stage 2 Assessment Report - Year 2 as well as impact assessments of the pilot training programs, will inform the proposal for the long-term platform, structure and sustainability of the certification program, to be formulated in Year 2. The Stage 2 Assessment will also explore practical means to encourage greater participation by women and young professionals as well as potential Distance/E-Learning Options.

### **Implementation of training and proof of concept**

In Quarter 1 and 2, using the regional certification approach described above, IWSMR planned a series of pilot training initiatives to test the approach and generate demand for ROCTP. The planned training pilots are summarized in the adjacent box and were outlined in detail in the approved Implementation Plan submitted to USAID in April. The certification training pilots will be coupled with Training of Trainers courses, to build cadres of capable trainers in the pilot countries and other potential markets identified by ACWUA. To further support regional program development, Jordanian and Egyptian subject matter experts will participate in an Instructional Systems Design (ISD) course intended to facilitate further development of their existing programs per the recommendations of the Regional Certification Task Force.

The detailed implementation plan schedule can be found in Annex 1, which shows the implementation of the aforementioned pilot and TOT courses taking place from May, 2014 through November, 2014.

#### **Planned Training, TOT, and ISD Pilots**

- TOT Amman- 18-22 May 2014 (24 participants)
- TOT West Bank- 3-7 Aug 2014 (12 participants)
- TOT Yemen- 17-21 Aug (12 participants)
- TOT Egypt (1)- 28 Sep- 2 Oct (18 participants)
- TOT Lebanon- 27-31 Oct (12 participants)
- TOT Egypt (2)- 23-27 Nov (16 participants)
- ROCTP West Bank 12-26 Oct (24 participants)
- ROCTP Lebanon February 2014 (24 participants)
- ROCTP Yemen December 2014 (24 participants)
- Utility Management Training, Level 1. April 2015  
Regional participation (7 countries, 24 participants)
- Instructional Systems Design Course – December 2014 (15 participants from Jordan and Egypt)

***“A sustainable operators’ certification program will upgrade the level of operators, increasing their skills, which will reflect in upgrading plant efficiency and the quality of water treatment, limiting pollution, maintaining public health, and thus serving the community.”*** Head of Sanitary & Environmental Engineering Research Institute, HBRC/Egypt

In Quarter 3, the first planned Training of Trainers course was held in Amman from 18 – 22 May for 22 participants (20 Jordanian; 2 Iraqi). In a significant development, CAQA accredited the TOT course in April, making it an official certification course for use across all sectors in Jordan. IWSMR’s implementation of the course, then, represented the first-ever certification of TOT graduates in Jordan, and resulted in 22 participants passing the exam and earning the certification credentials, which bodes well for the future sustainability of an affordable operator certification program.

The second TOT event, scheduled for June in Nablus, Palestine, was postponed at the request of the Palestinian counterpart at the Nablus municipality, due to the ongoing conflict situation. It was conducted in Amman from 3-7 August 2014 for 12 participants who all passed the test.

Please see Annex G - Training Course Report, for a list of actual trainings held to date, and remaining Year 2 planned courses.

*Quarter 4* – As part of the development of the IWSMR Work Plan Year 2, the detailed implementation plan schedule was updated. In September, the third TOT course was conducted for Yemeni trainees with 12 participants successfully passing the certification test.



Water sector TOT trainees in Yemen improve their training skills in support of the ROCTP rollout, August, 2014.

### **Implementation of Capacity Building Training**

Capacity building training includes the planned Training of Trainers events as well as the Instructional Systems Design course. The steps for the planning and execution of each TOT event are detailed in the implementation timeline in Annex A and are implemented jointly with ACWUA. They include:

- Coordinate with relevant authority (list of trainees, logistics)

***“We look forward to additional cooperation which contributes specifically in developing the performance of the water and sanitation sector in Yemen and generally in ACWUA participating countries.”*** Director General of Water & Sanitation Local Corporation, Sana’a, Yemen

- Identify and secure certified trainers
- Conduct TOT training
- Conduct TOT test
- Prepare Training Evaluation Report (Trainees evaluation form, Trainer evaluation)
- Prepare Test Report
- Award certificates for successful trainees

*Quarter 4* - The Egypt TOT commenced in Quarter 4 and will conclude in Quarter 5. The event was conducted between 28 September and 2 October with 18 trainees passing the test.



### ***Implementation of Certification Training Pilots***

The first certification training pilot is scheduled for Wastewater Treatment Operators in October in the West Bank, as detailed in Annex A. Planning and coordination began in August.

*Quarter 4* - The specific tasks concluded during the quarter include:

- Coordination to conclude agreement with West Bank/Nablus pilot utility

- Coordinate with pilot utility (list of trainees, logistics, etc.)
- Identify and secure certified trainers

The remaining two certification training pilots are scheduled for Quarters 5 and 6, in Yemen and Lebanon, respectively. ACWUA/IWSMR drafted a MOU for ROCTP Pilots during Quarter 4 to be used to ensure full understanding of the ROCTP approach and the specific roles and responsibilities of each participating pilot utility, ACWUA, and IWSMR during implementation and TIA phases. This signing process will kick-off each pilot starting with the Wastewater Treatment Operator Pilot planned with the Nablus Municipality/West Bank in Quarter 5.

### ***Improved training materials and programs***

In Quarter 2, discussions with ACWUA and USAID concerning of the assessment revealed that extensive work on materials development is not a priority for ACWUA, since proven training materials are already in place from the Jordanian program.

In Quarter 3, during the first meeting of the Regional Certification Task Force, held in Amman in May, it was agreed that a Technical Subcommittee composed of the Egyptian Holding Company for Water and Wastewater, CAQA, IWSMR, and ACWUA, would review the following documents from the two existing certification programs:

- Program outlines
- Available certification training courses and materials
- Certifications tests, results, and evaluations
- Results of training evaluations
- Results of Training Impact Assessments (TIAs)
- The IWSMR comparison report between the two programs
- The IWSMR Egypt mission report
- Any other available resources, which will be documented in the final report.

After their review, the task force sub-committee members with the assistance of IWSMR developed a technical report documenting the gaps in the existing programs and their recommendations for improvements before regional application.

*Quarter 4* - The final technical report and three MoUs were prepared on September 1 and circulated to all task force members to review and provide their feedback before final endorsement was received in Amman on 18 September, 2014.

## **2.3 Component 3 – Utility Twinning and Leveraging Best Practices**

During Quarter 1 and 2, as part of Assessment - Stage 1 of the assessment, IWSMR conducted an extensive review of the literature pertaining to knowledge exchanges and twinning. As part of this effort, IWSMR made contact with GWOPA, WaterLinks Alliance and Africa Water Association (AfWA) to gather information and lessons learned regarding Water Operator Partnerships and twinning. IWSMR and ACWUA reviewed preliminary recommendations (see box) for ACWUA knowledge exchange and twinning opportunities, in addition to plans for ongoing assessment, recommendations, and action planning. These

results, and those forthcoming from Stage 2, will serve as the basis for developing a twinning program that ACWUA can undertake given the availability of required financial resources.

As resolved in the IWSMR Work and Implementation Plans, in Year 2, IWSMR and ACWUA will collect data from member utilities on their needs and areas of focus for twinning arrangements, as inputs to a “match-making” process among utilities. IWSMR will work with ACWUA to develop a plan for implementation of five virtual twinning activities and will directly support implementation of two of them on a multilateral basis while ACWUA takes the lead on the remaining three. Furthermore, IWSMR and ACWUA will jointly identify ten more twinning activities to be implemented in the future beyond the life of IWSMR.

In Year 2, IWSMR will also support ACWUA in developing a twinning manual that can be used to carry out any twinning exercise in the future including suggested measureable indicators and impact evaluation techniques.

<b>Assessment, Stage 1 Contents for Component 3 – Twinning and Knowledge Exchange</b>
<ul style="list-style-type: none"><li>• Draft criteria for selection of knowledge exchange activities</li><li>• Catalogue of knowledge exchange instruments and delivery modes</li><li>• Lessons learned from organizations with exchange/twinning experience, including WaterLinks</li><li>• Viability considerations for an ACWUA twinning program</li><li>• Recommendations for an ACWUA Twinning and Knowledge Exchange Program</li></ul>

*Quarter 4* – No knowledge exchange/twinning activities were scheduled.

### **3. PLANNED ACTIVITIES IN NEXT QUARTER**

All activities through the remaining months of the IWSMR Program are outlined in the implementation plan timeline, updated and included in Annex A to show actual progress. Those activities that will be active in the coming Quarter 5 (October- December 2014) are summarized below.

#### **3.1 Component 1 – Build ACWUA Capacity**

*Quarter 5 Expected Results:*

1. Completion of auditing ACWUA’s internal systems for the ability to receive direct funds from USAID and other donor agencies. ACWUA responsibility determination to receive direct funds from USAID and other donor agencies secured
2. Approval of ACWUA’s strategic business plan and organizational structure for the period 2015–2019. ACWUA strategic business plan 2015-19 ratified by ACWUA board
3. Full installation of Certification Information System (CIS) and completion of training for ACWUA staff empowering them to use the system. CIS is fully functional with ACWUA assuming responsibility supported by IWSMR as required
4. Implementation of two ROCTP events for the WWT-L1 course in West Bank and Yemen

#### ***Update ACWUA’s Strategic Business Plan***

Meet ACWUA Board Planning Committee to review and discuss the draft business plan, organizational structure and associated functions and update the second draft of the business plan in October. Make final

adjustments to the plan and send to ACWUA committee members for review and approval in November. IWSMR and ACWUA will coordinate to ensure acceptance and ratification of the new business plan by the ACWUA board in January 2015 during the Arab Water Week.

### **Establish ACWUA Certification Information System**

***“ACWUA is pleased to have such a system which will enable the usage of stored data in developing an operator peer network for utilities, the information will definitely help utilities throughout the region.” Secretary General, ACWUA***

The CIS system development, testing, and installation will proceed as scheduled with the system fully operational in November. Final installation and training of ACWUA staff will take place in October. IWSMR will continue to assist ACWUA staff in populating the CIS with available training and TIA data to ensure accuracy and standardization upon project completion. For instance, the CIS system can be utilized by ACWUA to track information of number of operators trained, promoted or changing position or employer.

### **Determine the institutional requirements needed to establish a Certification Unit within ACWUA**

Pending approval of the ACWUA Strategic Business Plan, IWSMR will assist ACWUA in developing a new organization structure showing the addition of the Capacity Development and Certification Unit with unit functions and position descriptions including education and experience requirements.

### **Pre-Award Survey for Responsibility Determination**

Having already obtained the NUPAS in Quarter 2, as described in section 2.1 above, IWSMR’s next steps include facilitating changes to ACWUA’s financial and administrative policies and procedures with auditor support from PwC. IWSMR will assist ACWUA in making the necessary changes to the Financial Manual and in developing a Project Management Manual for use by ACWUA in managing donor-funded activities. PwC will complete the financial and administrative audit of ACWUA’s policies and procedures and will document specific elements to be changed by the end of November 2014. IWSMR and ACWUA will coordinate and follow-up with the USAID/Egypt Contracting Office and transition to USAID/Washington in December to ensure that the responsibility determination will be granted by project completion.

## **3.2 Component 2 - Regional Water and Wastewater Operator Certification Program**

### **Quarter 5 Expected Results:**

1. An update of the comparison between the Egyptian and Jordanian certification programs underway. MOUs between ACWUA and HCWW, EWRA, HBRC officially signed and endorsed
2. Operator certification and training needs identified (Assessment 2 underway)
3. MOU for ROCTP Pilot concluded with West Bank and Yemen including TIA
4. Two pilot ROCTP Wastewater Treatment Level 1 (WWT-L1) training courses completed in West Bank and Yemen
5. Two TOT training courses completed in Lebanon and Egypt

### ***Egyptian and Jordanian certification programs***

IWSMR will support the two certification bodies to develop certification test questions for the specified training materials by contracting two SMEs (Egyptian and Jordanian). IWSMR will update the comparison between the Egyptian and Jordanian certification programs in cooperation with the Task Force sub-committees. The Egyptian and Jordanian representatives will officially sign and endorse the results between ACWUA and HCWW, EWRA, and HBRC.

### ***Certification assessment and market analysis***

In Assessment Phase 2, The ACWUA/IWSMR team will start reviewing the demand for operator certification and training among all ACWUA members, their willingness/ability to pay and capacity to mobilize resources to leverage existing programs to the fullest extent possible ensuring the financial sustainability of the training and certification program beyond IWSMR's conclusion. In order to maintain a cost-effective approach for conducting tests on-site at member utilities throughout the MENA region, CAQA, ACWUA, and IWSMR will start discussing a possible alternative whereby some tests can be administered by a third party (public/private sector) under CAQA control and standards.

### ***Implementation of training and proof of concept***

Starting November 13, using the CIS, the ACWUA/IWSMR team will track operators who experience career advancement, and/or secure employment as operators outside their home countries due directly to obtaining ROCTP certification. With IWSMR assistance, ACWUA will start using the Training Needs Assessment (TIA) quantitative and qualitative indicators to assess the impact of training on water/wastewater service delivery improvements and financial viability of participating utilities.



ACWUA ROCTP covers the most current technologies and O&M practices as shown at this Jordan water facility.

### ***Conduct ROCTP in West Bank and Yemen***

Wastewater Treatment Level 1 (WWT- L1) course will be conducted according to planned schedule (Annex G/Year 2) in October for the West Bank and in December in Yemen. Baseline quantitative TIA data for 2013 will be collected from the two participating pilot utilities (West Bank and Yemen). Should security concerns in Sana'a, Yemen necessitate restrictions on travel, IWSMR will adjust event dates

accordingly and conduct the Lebanon ROCTP Pilot in December, moving the Yemen ROC Pilot to February (Quarter 6).

### **Implementation of final two TOT courses**

In accordance with the Training Plan and Schedule/Year 2 (Annex G):

- Conduct TOT in Lebanon for 12 local participants in October 2014
- Conduct 2<sup>nd</sup> TOT in Egypt for 16 participants in November 2014 including participants from other ACWUA member countries

### **3.3 Component 3 – Utility Twinning and Leveraging Best Practices**

*Quarter 5 Expected Results:*

1. Assessment of twinning needs and priorities analyzed.

### **Baseline Assessments**

IWSMR will initiate Assessment-Phase 2 to determine the twinning needs and priorities of interested ACWUA members. ACWUA will support IWSMR in obtaining the required feedback including areas of training, from its member utilities.

## **4. CHALLENGES AND RECOMMENDATIONS**

In general, IWSMR Year 1 went smoothly with all major goals as per the approved Implementation Plan successfully completed on or before schedule. As with any start-up, IWSMR had to overcome some difficulties aligning expectations with realities on the ground especially pertaining to the types of training to be offered; member participation and trainee selection; and, number of TOT/Capacity Building and ROCTP pilot courses to be conducted. Once these issues were settled and reflected in the approved Implementation Plan, IWSMR and ACWUA coordinated closely to conduct high quality planning, capacity building and ROCTP activities on schedule.

This section points out major hurdles that ACWUA and IWSMR jointly dealt with and resolved during Year 1.

4.1 Training Implementation & Rescheduling of Activities – The MENA region is currently unstable with broad political change and growing conflicts which directly impact IWSMR regional planning and training implementation. Most notably, during Year 1, IWSMR had to coordinate closely with authorities in the West Bank to reschedule ROCTP training that was affected by the turmoil in Gaza during the summer of 2014. Travel and visa restrictions further complicated training to be conducted for West Bank operators. As of this report, ROCTP training for the West Bank originally planned for August was rescheduled to take place in October 2014. As adverse circumstances prevail throughout the region, IWSMR and ACWUA will remain flexible and committed to accommodating schedule changes necessary to advance all planned capacity building and ROCTP activities. IWSMR and ACWUA are proud to report that given the local situation, during Year 1 training took place in Jordan, Egypt and Yemen on schedule.

4.2 Project Team – Changes to project staff are not unusual during project start up. After staffing up to mobilize, IWSMR underwent changes in two key positions. The original Chemonics chief of party was replaced by the current COP, Arwa Al-Mothaffar, who has established productive and cordial relationships with ACWUA and USAID. At the end of Year 1, Chemonics was engaged in finding an appropriate replacement for the IWSMR home office director as the original director resigned in July 2014. Elyse Wesbey, the PMU manager is ably coordinating required backstopping with all project deliverables approved and implementation on-time and on-budget. Chemonics expects to designate a new IWSMR director in Quarter 5.

4.3 Project Resources – IWSMR is a ‘small’ project with limited resources and duration to accomplish a demanding scope of work. Budgets and timeframes are always tight dictating careful and collaborative planning with ACWUA and USAID to ensure a shared vision going forward based on optimizing resources to achieve results. Maintaining the delicate balance between expectations and the adequacy of funds will be an ongoing IWSMR challenge especially as ACWUA requests additional support and IWSMR identifies new and legitimate needs. To date, IWSMR projects that barring substantial unforeseen expenditures such as a request from ACWUA for expansion of any training/twinning activities, current IWSMR funding will be adequate to fulfill all planned training events and deliverables.

4.4 Long-term ROCTP Sustainability – This annual report has endeavored to raise and address the issue of ACWUA and ROCTP sustainability in order to give USAID and other donors ample time to determine the extent to which they may continue to support ACWUA and ROCTP.

Over the 24 months of IWSMR, only 3 of ACWUA’s 18 member countries will participate in pilot ROCTP courses and in these cases the pilots are limited to Operator Level 1 of a 4-level certification career path. As reported here, within the IWSMR scope and available resources, the project has taken significant action to assist ACWUA in sustaining its nascent regional operator certification program.

Key among these actions are assistance to ACWUA in securing responsibility determination from USAID; encouraging ACWUA to provide training materials free of charge and to establish a ROCTP fee structure compatible with ability to pay; conducting a generous TOT program to make utilities self-sufficient in conducting training with their own qualified trainers to reduce costs; insisting on a MOU for ROCTP Pilots securing buy-in commitment from participating utilities; and, implementing a Training Impact Assessment approach to convince utilities that ROCTP will yield positive performance improvements that justify their training investment.

When looking forward beyond Year 2, real concerns arise as to whether the limited IWSMR scope will be enough to allow ROCTP to take root and prosper throughout the MENA as it has in Jordan where USAID conducted the 5-year OMT project strictly focused on establishing the first legitimate and sustainable operator certification program in the region.

***“It is strongly believed that TIA will assist in showing the impact of conducted training back to the workplace and how far the participant trainees could transfer the knowledge into their job, as well as implementing the needed performance improvements at their utilities.” Secretary General, ACWUA***

During Year 2, IWSMR will continue to assist ACWUA by all available means to secure the long-term future of ROCTP. However after Year 1, the project feels compelled to raise an early red flag to warn USAID that upon the conclusion of the project in September 2015, ACWUA capacity, new trainer ability, and ROCTP scale-up, expansion and enduring sustainability will remain in question.

Given the USAID process, it is recommended that if USAID wishes to continue ACWUA and ROCTP support, the agency consider immediate action to put resources in place to avoid any gap after the completion of IWSMR in September 2015.

## **5. ADMINISTRATIVE ELEMENTS**

### **5.1 Office Space and Operations**

By Quarter 4, IWSMR finance and administrative operations were well established and continued smoothly. In July, IWSMR hired a Coordinator for Program Development with extensive data analysis and training tracking experience who could support IWSMR's ramp-up of technical training activities and help track large-scale ToT and future ROCTP pilot activities in accordance with ADS 253 "Participant Training for Capacity Development" standards. IWSMR's TraiNet account was activated during Quarter 4 and is utilized, per USAID's requirements, for all participant trainees tracking.

Two notable procurements occurred during Quarter 4, as detailed in the procurement table below. In July, IWSMR finished the competition and bidding process for the Certification Information System (CIS) RFP to relevant IT companies. ACWUA and IWSMR jointly selected Integrated Standard Solutions (ISS) as the CIS platform developer, the subcontract was executed in early July. System development commenced thereafter and will be fully installed in early October. IWSMR is in the process of updating ACWUA's SQL version for full CIS compatibility on ACWUA's server. In August, IWSMR fully competed and executed a subcontract with PricewaterhouseCoopers (PwC) for the procurement of auditing services to update ACWUA's Financial Manual, following recommendations from the Non U.S. Organization Pre-Award Survey completed in June. Throughout Quarter 4, as detailed above in section 2.1, IWSMR staff worked closely with ACWUA to help them build a project manual, mentor ACWUA's new Finance Accountant and Finance Director as they implement PwC's Financial Manual recommendations, and improve internal HR management systems.

## 5.2 Procurement Plan Update

The project moved forward with procuring the following major commodities and services outlined in the Year 1 Work Plan. Major procurements completed during Year 1 (including Quarter 4, July– September, 2014) include the following:

Procurements (Equipment, Materials, Services) Year 1				
Commodity/Service for Year 1	Total/ Items	Amount Year 1	Destination	Timing (Month/Year)
Project Vehicle	1	\$19,500	Jordan	January, 2014
Office Equipment, Office Make Ready and continued Maintenance	<ul style="list-style-type: none"> <li>Furniture</li> <li>Phones</li> <li>Office Supplies</li> </ul>	\$18,750	Jordan	October – December, 2013
IT Hardware, Software, and Support Services	<ul style="list-style-type: none"> <li>Computers</li> <li>Server</li> <li>Software</li> </ul>	\$19,737.29	Jordan	November, 2013-September, 2014
Eco Consult Time and Materials Subcontract	<ul style="list-style-type: none"> <li>1 Long-Term and 1 Short-Term Personnel</li> </ul>	\$119,554.71	Jordan	October, 2013-September, 2014
Fixed Price Subcontracts	<ul style="list-style-type: none"> <li>Computer Information System (CIS)</li> <li>PwC NUPAS</li> <li>PwC Finance Manual</li> <li>Professional Services</li> </ul>	\$50,272.69	Jordan	May, 2014 – September, 2014

1. *U.S. Manufactured Vehicle:* Per the approved proposal budget, and with the approval of the CO Susan Thomas, the project purchased one U.S. manufactured vehicle to transport project staff and complete daily project errands. The vehicle was purchased in January 2014.
2. *Office and IT equipment:* Office furniture and IT equipment was purchased during project start-up to provide desks and computers for project staff members.
3. *Eco Consult-Time and Materials Subcontract:* Beginning in October 2014, Eco Consult began furnishing the IWSMR program with long-term and short-term labor. As DCOP and Training Specialist, Zaid AlQaisi, is providing support to TOT events, Egypt-Jordanian Taskforce activities, and overarching technical support to IWSMR. Short-Term, Lina Sheqem, is providing support to Arab Countries Water Utilities Association (ACWUA) Business Plan for 2015-2019. CO Consent to subcontract with Eco Consult was provided under section H. 20 “Subcontractor Approval,” of the IWSMR contract.
4. *PwC NUPAS Report:* In accordance with Section 2.1.3 of the contract, IWSMR procured a pre-award survey of ACWUA’s existing financial and management systems. The result was a detailed NUPAS report and action plan of recommendations for internal systems improvements.
5. *PwC Finance Manual Update:* In accordance with recommendations from the NUPAS issued by PwC in June, 2014, IWSMR re-competed and hired PwC in August, 2014 to implement

management and financial audit recommendations for the purpose of strengthening ACWUA’s management systems in the hopes of obtaining a responsibility determination from USAID.

6. *Computer Information System (CIS)*: A subcontract with Integrated Standard Solutions (ISS) has already been executed for the purpose of developing a web-based training information system. This system is expected to be complete in Year 2.
7. *Other Fixed Price Subcontracts*: In Year 1, other fixed price subcontracts include minor subcontracts for occasional labor and/or professional services relating to IT support which will be renewed/executed, as needed. No other major fixed price subcontracts were issued in Year 1 but may be initiated in the future to support training, materials development, and twinning efforts.

### 5.3 Staffing

The IWSMR long-term team is fully staffed and actively involved in project implementation for the duration of the fourth quarter. All technical activities have taken place according to the implementation plan and the staff continues to support each other while members of the IWSMR team are traveling, conducting meetings, and working on specific tasks. The IWSMR team has also successfully hired short-term staff to serve as trainers for the West Bank and Yemen TOT events.

Staff members performing during the quarter were:

Name	Position
Arwa Al-Mothaffar	Chief of Party
Zaid AlQaisi	Deputy Chief of Party/ Training Specialist (Contracted long-term through ECO Consult)
Duaa Al-Kreisha	Coordinator of Program Development
Suha Shalabieh	Director of Finance and Administration
Razan Al-Musa	Finance and Administration Assistant
Mohamed Khalilee	Project Driver

IWSMR short-term staff during the July - September 2014 period include:

Name	Position
Howard Sokoloff	Senior Technical Advisor
Lina Sheqem	Institutional Expert (Contracted short- term through ECO Consult)
Ayad Al-Ashram	Training of Trainers Trainer

## 6. QUARTERLY FINANCIAL REPORT

### 6.1 Financial Elements

The fourth quarter of the IWSMR project has been completed with invoice submissions on the following dates:

Invoice 1	July 23, 2014 (June Invoice)
Invoice 2	September 02, 2014 (July Invoice)
Invoice 3	September 26, 2014 (August Invoice)

The IWSMR accruals through the end of the third quarter are as follows:

Accruals as of September 30, 2014	
Total Funds Obligated	██████████
Total Life-of-Project Expenditures at End of Previous Quarter (As of June 30, 2014)	██████████
Total Projected Quarterly Expenditures for Current Quarter (July 01, 2014- September 30, 2014)	██████████
Remaining Obligated Funds Available at End of Current Quarter (As of September 30, 2014)	██████████

### 6.2 Quarterly Financials (July – September, 2014)

The total budget under this task order is \$1,991,240.00, all of which has been obligated. Below is the estimated monthly expenditure summary for IWSMR during the reporting period for both programmatic and operations costs.

Monthly Project Expenditures for IWSMR				
Month	Total Amount Spent in Month	Total Amount Spent to Date	Obligated Amount Remaining	Total Contract Ceiling Amount Remaining
July-14	██████████	██████████	██████████	██████████
August-14	██████████	██████████	██████████	██████████
September-14	██████████	██████████	██████████	██████████

### 6.3 ECO Consult Subcontract Expenditures

During the fourth quarter, ECO Consult personnel continued to assist IWSMR with finalizing the Business Plan documents for ACWUA, as well as finalizing discussions with HCWW in Cairo, Egypt. Zaid AlQaisi facilitated the taskforce meeting between the Egyptian and Jordanian certification programs to promote

regional certification in August. The group reached a consensus and Mr. AlQaisi assisted with drafting the MOUs, the terms of which were negotiated in September. Mr. AlQaisi also continued to facilitate the West Bank and Yemen TOT training events on behalf of IWSMR. Ms. Lina Sheqem continued to work on the final draft of the 2015-2019 Business Plan milestones and deliverables, which will be presented at the Business Plan Committee Meeting in October.

The below table provides a breakdown of ECO Consult’s expenditures during the July - September 2014 period:

Name	LOE (Days)	Total (includes labor, fringe and multiplier)	Combined Total
Zaid AlQaisi/ LTTA	July – full month August – full month September – full month	██████████	██████████
Lina Sheqem/ STTA	July –4.06 days August – 7.5 days September – 13.13 days	██████████	

The IWSMR Program projects the following expenditure for the ECO Consult subcontract over the remaining life of the project:

Commodity/Service	Total/ Items	Estimated Amount	Estimated Timing (Month/Year)
Eco Consult Time and Materials Subcontract	<ul style="list-style-type: none"> <li>• 1 Long-Term DCOP</li> <li>• 1 Short-Term Consultant</li> </ul>	██████████	October 2014-September 2015

### 6.4 Contractual Elements

To date, the IWSMR Task Order No. AID-263-TO-13-00003 issued under the Integrated Water and Coastal Resources Management IQC Contract No. EPP-I-00-04-00020-00 has received one administrative modification increasing the task order obligation from \$466,163 to \$1,991,240.00. There are no other contractual considerations to note, at this time.

## 7. ACCUMULATED DOCUMENTS AND DELIVERABLES SUBMITTED TO USAID

To date, the following deliverables have been submitted to USAID:

Report No.	Title of Report	Submission Date
01	Year 1 Work Plan September 30, 2013 – September 29, 2014	November 27, 2013
02	Performance Monitoring Plan (PMP)	November 27, 2013
03	1st Quarterly Progress Report	January 15, 2014
04	Quarterly Financial Report	January 15, 2014
05	Assessment Report and Draft Implementation Plan (IP)	January 31, 2014
06	IP Review Summary Agreement	April 01, 2014
07	2 <sup>nd</sup> Quarterly Progress Report	April 15, 2014
08	Quarterly Financial Report	April 15, 2014
09	Branding Implementation Plan and Marking Plan	June 16, 2014
10	3 <sup>rd</sup> Quarterly Progress Report	July 15, 2014
11	Quarterly Financial Report	July 15, 2014
12	Year 2 Work Plan September 30, 2014-September 29, 2014	September 05, 2014
13	First Annual Progress Report (Includes 4 <sup>th</sup> QPR)	October 17, 2014



















## ANNEX B: PMP & TIA QUANTATIVE COMPARISON OF PROJECT ACCOMPLISHMENTS

### IWSMR Performance Monitoring Indicators

<b>Program Objective: Improved water and sanitation services in the MENA region</b>
Quality of W/WW treated: Noncompliance citations per year at participating utilities
PR 1: Increased ACWUA capacity to carry out its mandate
Milestone: ACWUA business plan updated; annual business plan targets met; certification unit established
IR 1.1: Improved management and information systems within ACWUA
Milestone: Training and certification information system (CIS) launched
Milestone: USAID Responsibility Determination secured
IR 1.2: Improved reliability of ACWUA's year-to-year revenue streams
Revenues generated from ACWUA Operator Certification and Training Program
PR 2: Scaled up operator certification programs to a regional level
Milestone: Interim regional certification platform established
Number of countries participating in the regional certification program
Number of operators obtaining regionally recognized certification
Percentage of operators passing standardized certification tests
Number of certified trainers (Training of Trainers - TOT graduates)
Number of certified operators obtaining new positions, promotions, or added incentives
Number of certified operators working in markets outside of their country of origin and country of certification
Change in technical and management skills due to obtaining operator certification
Change in job performance due to obtaining operator certification
Change in attitude, confidence and self-esteem due to obtaining operator certification
IR 2.1: Enhanced training materials and certification framework
Number of courses (materials) and tests approved by ACWUA and finalized for regional certification
PR 3: Improved performance of regional water and wastewater utilities by leveraging USAID-funded improvements

Utility performance measures selected for each twinning pair based on scope of partnership, e.g., collection rates, non-revenue water (NRW) rates
IR 3.1: Increased exchange between water and wastewater utilities
Number of twinning arrangements piloted
Change in technical and management skills attributed to twinning exchange
Change in job performance attributed to twinning exchange

<b>IWSMR Year 1 Performance, October 2013-September 2014</b>			
<b>Indicator</b>	<b>Target- Year 1 2013/14</b>	<b>Results through September 2014</b>	<b>Disaggregation / Notes</b>
Program Objective: Improved water and sanitation services in the MENA region			
Quality of W/WW treated: Noncompliance citations per year at participating utilities	0	N/A	N/A
PR 1: Increased ACWUA capacity to carry out its mandate			
Milestone: ACWUA business plan updated; annual business plan targets met	Complete	Bridging Memo completed. New business plan draft in progress.	N/A
IR 1.1: Improved management and information systems within ACWUA			
Milestone: Training and certification information system (CIS) launched	CIS launched	Local contract awarded	Software design and development underway.
IR 1.2: Improved reliability of ACWUA's year-to-year revenue streams			
Revenues generated from ACWUA Operator Certification and Training Program	TBD	\$8,224.80	From TOT 1 – Jordan, TOT 2- WB, TOT 3- Yemen. The TOT courses were accredited by CAQA during the quarters.
PR 2: Scaled up operator certification programs to a regional level			
Milestone: Interim regional certification platform established	Approved	Approved	Jordan platform approved by ACWUA Board of Directors
Number of countries participating in the regional certification program	Year 1 - 0	4 participating countries identified	West Bank, Lebanon, Yemen & Jordan
Number of operators participating in regionally recognized certification program	Year 1 – 0 Year 2 – 96	N/A	Based on enrollment; 25% women

Percentage of operators passing standardized certification tests	Total Trainees Passing: 75%	N/A	Passing Grade: 60%, per CAQA policy, approved by ACWUA BOD
Number of certified trainers (Training of Trainers and Instructional Systems Design course graduates)	Year 1 & 2 total - 109	Year 1- 66	66 total. Comprised of Jordanians, Iraqis; Yemenis, Egyptians; and Palestinians;  16 female TOT graduates  Year 2 - 28 additional certified trainers and 15 certified curricula developers planned from ten member countries.
Number of certified operators obtaining new positions, promotions, or added incentives	None	N/A	Tracking and reporting only
Number of certified operators working in markets outside of their country of origin and country of certification	None	N/A	Tracking and reporting only
Change in technical and management skills due to obtaining operator certification	80%	N/A	As reported via Training Impact Assessments (TIA) for Utility Management graduates
Change in job performance due to obtaining operator certification	80%	N/A	As reported via TIA for Operator Certification graduates
Change in attitude, confidence and self-esteem due to obtaining operator certification	80%	N/A	As reported via TIA for Operator Certification graduates
IR 2.1: Enhanced training materials and certification framework			
Number of courses (materials) and tests approved by ACWUA and finalized for regional certification	Year 1 & 2 total - 16	1 TOT course approved, accredited, and piloted for regional certification. 1 GIS course accredited.	14 additional courses planned:  Operator – 13  Utility Manager – 1
PR 3: Improved performance of regional water and wastewater utilities by leveraging USAID-funded improvements			

Utility performance measures selected for each twinning exercise based on scope of partnership, e.g., collection rates, non-revenue water (NRW) rates	TBD	N/A	As reported via TIA based on selected utility function for pilot
IR 3.1: Increased exchange between water and wastewater utilities			
Number of twinning arrangements piloted	TBD	N/A	2 twinning pilots planned
Change in technical and management skills attributed to twinning exchange	80%	N/A	Training Impact Assessments
Change in job performance attributed to twinning exchange	80%	N/A	Training Impact Assessments

### IWSMR Performance Indicator Reference Sheets

IWSMR Performance Indicator Description			
<b>Program Objective:</b> Improved Water and Sanitation Services in the MENA region			
<b>Program Result:</b> N/A			
<b>Intermediate Result:</b> N/A			
<b>Indicator:</b> Quality of W/WW treated: Noncompliance citations per year at participating utilities			
DESCRIPTION			
<b>Definition:</b> Treated water and effluent quality tested by external agencies according to established country standards. This indicator tracks the results of these tests.			
<b>Unit of Measure:</b> Occurrence of reported non-compliance			
<b>Disaggregated by:</b> Type of facility (Water or Wastewater Treatment); Country; Training/Certification Received			
PLAN FOR DATA ACQUISITION & REPORTING			
<b>Data Collection Method:</b> TIA reporting			
<b>Data Source(s):</b> Utility			
<b>Frequency/Timing of Data Acquisition:</b> Every 6 months			
<b>Reporting of Data:</b> TIA reports; IWSMR quarterly and annual progress reports			
PERFORMANCE INDICATOR VALUES			
Year	Target	Actual	Notes
1	0	N/A	Utilities provide results annually; Baseline 2013
2	80%		Participating Utilities
THIS SHEET LAST UPDATED: October 2014			

IWSMR Performance Indicator Description			
<b>Program Objective:</b> Improved Water and Sanitation Services in the MENA region			
<b>Program Result:</b> 1. Increased ACWUA capacity to carry out its mandate			
<b>Intermediate Result:</b> N/A			
<b>Indicator:</b> ACWUA strategic business plan updated; Certification Unit established within the ACWUA directorate			
DESCRIPTION			
<b>Definition:</b> The current ACWUA business plan runs through 2014 – it will be updated. Following the 2014 update, the 2015-19 plan will be completed.			
<b>Unit of Measure:</b> Milestone			
<b>Disaggregated by:</b> N/A			
PLAN FOR DATA ACQUISITION & REPORTING			
<b>Data Collection Method:</b> The ACWUA Secretary General is the immediate counterpart. A committee established within the ACWUA board to work directly with IWSMR on the draft plan, which will then be presented to the full board for approval.			

<b>Data Source(s):</b> ACWUA			
<b>Frequency/Timing of Data Acquisition:</b> Data will be collected from ACWUA headquarters and from members using a survey questionnaire and follow-up. This planning activity will be completed by April 2014.			
<b>Reporting of Data:</b> ACWUA Strategic Business Plan – 2014 Update; 2015-19; Draft and Final. IWSMR quarterly and annual progress reports			
PERFORMANCE INDICATOR VALUES			
Year	Target	Actual	Notes
1	Complete	Draft	Bridging Memo/2014 Update completed and approved. ACWUA Business Plan 2015-19; Draft in progress
2	Approved		Consensus agreement from ACWUA board Certification Unit established within the ACWUA directorate
THIS SHEET LAST UPDATED: October 2014			

IWSMR Performance Indicator Description			
<b>Program Objective:</b> Improved Water and Sanitation Services in the MENA region			
<b>Program Result:</b> 1. Increased ACWUA capacity to carry out its mandate			
<b>Intermediate Result:</b> 1.1 Improved management and information systems within ACWUA			
<b>Indicator:</b> Training and certification information system (CIS) launched; ACWUA management and financial systems improved to secure USAID Responsibility Determination			
DESCRIPTION			
<b>Definition:</b> The web-based CIS will be the central repository for all data pertinent to the ACWUA operator certification, testing and training and twinning activities.			
<b>Unit of Measure:</b> Milestone			
<b>Disaggregated by:</b> N/A			
PLAN FOR DATA ACQUISITION & REPORTING			
<b>Data Collection Method:</b> CIS needs will be collected from ACWUA and compared with standard training management software. Parameters and specifications will be reviewed and approved by ACWUA.			
<b>Data Source(s):</b> ACWUA needs; Standard training management software products; Similar systems in MENA.			
<b>Frequency/Timing of Data Acquisition:</b> Data will be collected from ACWUA headquarters and from members. Actual certification, testing, training and twinning data will be entered into the fully operated CIS in Year 1.			
<b>Reporting of Data:</b> The CIS will generate all standard reports including but not limited to certification, testing and training data disaggregated by country, utility, program, trainee, trainer, gender and cost. IWSMR quarterly and annual progress reports			
PERFORMANCE INDICATOR VALUES			
Year	Target	Actual	Notes
1	CIS launched	Beta Version	Local contract awarded; CIS operational/under test
2	CIS functional		CIS populated and in use by ACWUA
THIS SHEET LAST UPDATED: October 2014			

<b>IWSMR Performance Indicator Description</b>			
<b>Program Objective:</b> Improved Water and Sanitation Services in the MENA region			
<b>Program Result:</b> 1. Increased ACWUA capacity to carry out its mandate			
<b>Intermediate Result:</b> 1.2 Improved reliability of ACWUA's year-to-year revenue streams			
<b>Indicator:</b> Revenues generated from ACWUA Operator Certification and Training Program			
<b>DESCRIPTION</b>			
<b>Definition:</b> ACWUA will collect fees from the new revenue streams associated with provision of operator certification, testing and training services. These revenues will be based upon the number of trainees enrolled in various ACWUA programs, courses, twinning activities and tests.			
<b>Unit of Measure:</b> Jordanian Dinars/US Dollars			
<b>Disaggregated by:</b> Payment source			
<b>PLAN FOR DATA ACQUISITION &amp; REPORTING</b>			
<b>Data Collection Method:</b> Reports from the ACWUA financial department			
<b>Data Source(s):</b> ACWUA financial department			
<b>Frequency/Timing of Data Acquisition:</b> On going as fees received for certification, testing and training service.			
<b>Reporting of Data:</b> Monthly ACWUA financial reports. IWSMR quarterly and annual progress reports.			
<b>PERFORMANCE INDICATOR VALUES</b>			
Year	Target	Actual	Notes
1, 2	TBD	<b>\$8,224.80 Collected</b>	<b>Based on actual ACWUA coordination fees for ROCTP and TOT enrollment and testing</b>
THIS SHEET LAST UPDATED: October 2014			

<b>IWSMR Performance Indicator Description</b>			
<b>Program Objective:</b> Improved Water and Sanitation Services in the MENA region			
<b>Program Result:</b> 2. Scaled up operator certification programs to a regional level			
<b>Intermediate Result:</b> N/A			
<b>Indicator:</b> Interim regional certification platform established			
<b>DESCRIPTION</b>			
<b>Definition:</b> Until each ACWUA member country has established its own legally recognized certification scheme; ACWUA will rely on an interim approach whereby operators from member countries/utilities will be certified by the Center for Accreditation and Quality Assurance (CAQA) in Jordan in accordance with their regulations. The ACWUA board must approve this interim approach.			
<b>Unit of Measure:</b> Milestone			
<b>Disaggregated by:</b> N/A			
<b>PLAN FOR DATA ACQUISITION &amp; REPORTING</b>			
<b>Data Collection Method:</b> Report from ACWUA Board of approval			
<b>Data Source(s):</b> ACWUA Board			
<b>Frequency/Timing of Data Acquisition:</b> No later than February 2014 (IWSMR month 5)			
<b>Reporting of Data:</b> IWSMR quarterly and annual progress reports			

PERFORMANCE INDICATOR VALUES			
Year	Target	Actual	Notes
1	Approved	Approved	Interim platform (CAQA/Jordan) approved by ACWUA Board
THIS SHEET LAST UPDATED: October 2014			
IWSMR Performance Indicator Description			
<b>Program Objective:</b> Improved Water and Sanitation Services in the MENA region			
<b>Program Result:</b> 2. Scaled up operator certification programs to a regional level			
<b>Intermediate Result:</b> N/A			
<b>Indicator:</b> Number of countries participating in the regional certification program (Not including Jordan and Egypt)			
DESCRIPTION			
<b>Definition:</b> Participating countries must accept the ACWUA interim regional certification platform including CAQA certificates and tests as well as agree that these will be honored at such time that the country has its own certification platform. The country must agree to pay for all fees related to the training, testing and certification.			
<b>Unit of Measure:</b> Number of countries; MOU between ACWUA and each country			
<b>Disaggregated by:</b> Country			
PLAN FOR DATA ACQUISITION & REPORTING			
<b>Data Collection Method:</b> Report from ACWUA Secretary General (or delegate) of country agreement			
<b>Data Source(s):</b> ACWUA Secretary General (or delegate)			
<b>Frequency/Timing of Data Acquisition:</b> Upon MOU signing			
<b>Reporting of Data:</b> IWSMR quarterly and annual progress reports			
PERFORMANCE INDICATOR VALUES			
Year	Target	Actual	Notes
1	0 Country	N/A	<b>Training conducted for a member utility in each country. These initial training programs are pilots to build ACWUA and regional capacity necessary for ACWUA to replicate on a sustainable basis.</b>
2	4 Countries		<b>ROCTP Pilots: West Bank, Yemen, Lebanon; Jordan</b>
THIS SHEET LAST UPDATED: October 2014			

IWSMR Performance Indicator Description			
<b>Program Objective:</b> Improved Water and Sanitation Services in the MENA region			
<b>Program Result:</b> 2. Scaled up operator certification programs to a regional level			
<b>Intermediate Result:</b> N/A			
<b>Indicator:</b> Number of operators obtaining regionally recognized certification			
DESCRIPTION			
<b>Definition:</b> Operators who meet the prerequisites, attend the designated ACWUA courses and pass the associated CAQA tests will obtain the regionally recognized interim CAQA certification as per CAQA regulations.			
<b>Unit of Measure:</b> Number of operators passing CAQA tests			
<b>Disaggregated by:</b> Country, certification program, level, gender, and institution/utility.			
PLAN FOR DATA ACQUISITION & REPORTING			
<b>Data Collection Method:</b> CAQA Certification and Testing Report via ACWUA Secretary General (or delegate)			
<b>Data Source(s):</b> CAQA via ACWUA Secretary General (or delegate)			
<b>Frequency/Timing of Data Acquisition:</b> Within 10 days after each CAQA test			

<b>Reporting of Data:</b> IWSMR quarterly and annual progress reports			
PERFORMANCE INDICATOR VALUES			
Year	Target	Actual	Notes
1	0	N/A	<b>No Operator training in Year 1; Based on enrollment; 25% women</b>
2	96 ROCTP	N/A	By agreement the original 200 is divided between TOT and ROCTP with no ROCTP in Year 1
THIS SHEET LAST UPDATED: October 2014			

IWSMR Performance Indicator Description			
<b>Program Objective:</b> Improved Water and Sanitation Services in the MENA region			
<b>Program Result:</b> 2. Scaled up operator certification programs to a regional level			
<b>Intermediate Result:</b> N/A			
<b>Indicator:</b> Percentage of operators passing standardized certification tests			
DESCRIPTION			
<b>Definition:</b> The passing grade on CAQA tests is 60%. This indicator measures the percentage of operators who achieve the passing standard.			
<b>Unit of Measure:</b> Percentage of operators passing CAQA tests			
<b>Disaggregated by:</b> Country, certification program, level, gender, and institution/utility.			
PLAN FOR DATA ACQUISITION & REPORTING			
<b>Data Collection Method:</b> CAQA Certification and Testing Report via ACWUA Secretary General (or delegate)			
<b>Data Source(s):</b> CAQA via ACWUA Secretary General (or delegate)			
<b>Frequency/Timing of Data Acquisition:</b> Within 10 days after each CAQA test			
<b>Reporting of Data:</b> IWSMR quarterly and annual progress reports			
PERFORMANCE INDICATOR VALUES			
Year	Target	Actual	Notes
1, 2	75%		<b>60% passing grade based on CAQA policy and approved by ACWUA board</b>
THIS SHEET LAST UPDATED: October 2014			

IWSMR Performance Indicator Description			
<b>Program Objective:</b> Improved Water and Sanitation Services in the MENA region			
<b>Program Result:</b> 2. Scaled up operator certification programs to a regional level			
<b>Intermediate Result:</b> N/A			
<b>Indicator:</b> Number of certified trainers			
DESCRIPTION			
<b>Definition:</b> The ACWUA strategy is to provide each participating country/utility with the capacity of conducting training on their own with operators who have also received CAQA certification as qualified trainers. This approach will help to ensure the sustainability of training by making utilities self-sufficient. Selection of TOT candidates will be from the top performing operators based on their test results.			
<b>Unit of Measure:</b> Percentage of operators attending Training of Trainers (TOT) course and passing CAQA TOT test			
<b>Disaggregated by:</b> Country, certification program, level, gender, and institution/utility.			
PLAN FOR DATA ACQUISITION & REPORTING			

<b>Data Collection Method:</b> CAQA Certification and Testing Report via ACWUA Secretary General (or delegate)			
<b>Data Source(s):</b> CAQA via ACWUA Secretary General (or delegate)			
<b>Frequency/Timing of Data Acquisition:</b> Within 10 days after each CAQA test			
<b>Reporting of Data:</b> IWSMR quarterly and annual progress reports			
PERFORMANCE INDICATOR VALUES			
Year	Target	Actual	Notes
1	3 Courses	66 Trainees	Comprised of Jordanian, Iraqi, Yemeni, Palestinian and Egyptian trainees; 16 female trainees
2	3 Courses	43 Trainees	28 TOT; 15 ISD
THIS SHEET LAST UPDATED: October 2014			

IWSMR Performance Indicator Description			
<b>Program Objective:</b> Improved Water and Sanitation Services in the MENA region			
<b>Program Result:</b> 2. Scaled up operator certification programs to a regional level			
<b>Intermediate Result:</b> N/A			
<b>Indicator:</b> Number of certified operators obtaining new positions, promotions, or added incentives			
DESCRIPTION			
<b>Definition:</b> As per USAID request, IWSMR and ACWUA will track this indicator only. No target will be assigned			
<b>Unit of Measure:</b> Number of certified operators who experience a change in employment status/salary			
<b>Disaggregated by:</b> Country, certification program, level, gender, and institution/utility.			
PLAN FOR DATA ACQUISITION & REPORTING			
<b>Data Collection Method:</b> Data posted by utilities to ACWUA CIS			
<b>Data Source(s):</b> Participating utilities (Operators may have access to post based on ACWUA Board approval of this procedure)			
<b>Frequency/Timing of Data Acquisition:</b> Quarterly			
<b>Reporting of Data:</b> CIS reports. IWSMR quarterly and annual progress reports			
PERFORMANCE INDICATOR VALUES			
Year	Target	Actual	Notes
1, 2	None		Tracking via ACWUA CIS only
THIS SHEET LAST UPDATED: October 2014			

IWSMR Performance Indicator Description			
<b>Program Objective:</b> Improved Water and Sanitation Services in the MENA region			
<b>Program Result:</b> 2. Scaled up operator certification programs to a regional level			
<b>Intermediate Result:</b> N/A			
<b>Indicator:</b> Number of certified operators working in markets outside of their country of origin and country of certification			
DESCRIPTION			
<b>Definition:</b> As per USAID request, IWSMR and ACWUA will track this indicator only. No target will be assigned.			
<b>Unit of Measure:</b> Number of certified operators who obtain employment abroad			
<b>Disaggregated by:</b> Country, certification program, level, gender, and institution/utility.			
PLAN FOR DATA ACQUISITION & REPORTING			

<b>Data Collection Method:</b> Data posted by utilities to ACWUA CIS			
<b>Data Source(s):</b> Participating utilities (Operators may have access to post based on ACWUA Board approval of this procedure)			
<b>Frequency/Timing of Data Acquisition:</b> Quarterly			
<b>Reporting of Data:</b> CIS reports. IWSMR quarterly and annual progress reports			
PERFORMANCE INDICATOR VALUES			
Year	Target	Actual	Notes
1, 2	None		Tracking via ACWUA CIS only
THIS SHEET LAST UPDATED: October 2014			

IWSMR Performance Indicator Description			
<b>Program Objective:</b> Improved Water and Sanitation Services in the MENA region			
<b>Program Result:</b> 2. Scaled up operator certification programs to a regional level			
<b>Intermediate Result:</b> N/A			
<b>Indicator:</b> Change in technical and management skills due to obtaining operator certification and/or participation in twinning			
DESCRIPTION			
<b>Definition:</b> Qualitative measure as reported by the trainee and his/her supervisor in response to TIA questionnaire and interview			
<b>Unit of Measure:</b> Percentage reporting degree of improvement in technical and management skills			
<b>Disaggregated by:</b> Country, certification program, level, twinning, gender, and institution/utility, trainee, supervisor			
PLAN FOR DATA ACQUISITION & REPORTING			
<b>Data Collection Method:</b> TIA questionnaires and interviews (CIS may allow posting)			
<b>Data Source(s):</b> Trained operators and their immediate supervisors at participating utilities			
<b>Frequency/Timing of Data Acquisition:</b> Upon completion of training and at 6-month interval thereafter.			
<b>Reporting of Data:</b> CIS reports. IWSMR quarterly and annual progress reports			
PERFORMANCE INDICATOR VALUES			
Year	Target	Actual	Notes
1, 2	80%	Y1 – N/A	Trainees and supervisors reporting positive improvement via TIA in Year 2 for ROCTP.
THIS SHEET LAST UPDATED: October 2014			

IWSMR Performance Indicator Description			
<b>Program Objective:</b> Improved Water and Sanitation Services in the MENA region			
<b>Program Result:</b> 2. Scaled up operator certification programs to a regional level			
<b>Intermediate Result:</b> N/A			
<b>Indicator:</b> Change in job performance due to obtaining operator certification and/or participation in twinning			
DESCRIPTION			
<b>Definition:</b> Qualitative measure as reported by the trainee and his/her supervisor in response to TIA questionnaire and interview			

<b>Unit of Measure:</b> Percentage reporting degree of improvement in job performance			
<b>Disaggregated by:</b> Country, certification program, level, twinning, gender, and institution/utility, trainee, supervisor			
PLAN FOR DATA ACQUISITION & REPORTING			
<b>Data Collection Method:</b> TIA questionnaires and interviews (CIS may allow posting)			
<b>Data Source(s):</b> Trained operators and their immediate supervisors at participating utilities			
<b>Frequency/Timing of Data Acquisition:</b> Upon completion of training and at 6-month interval thereafter.			
<b>Reporting of Data:</b> CIS reports. IWSMR quarterly and annual progress reports			
PERFORMANCE INDICATOR VALUES			
Year	Target	Actual	Notes
1, 2	80%		Trainees and supervisors reporting positive improvement via TIA
THIS SHEET LAST UPDATED: October 2014			

IWSMR Performance Indicator Description			
<b>Program Objective:</b> Improved Water and Sanitation Services in the MENA region			
<b>Program Result:</b> 2. Scaled up operator certification programs to a regional level			
<b>Intermediate Result:</b> N/A			
<b>Indicator:</b> Change in attitude, confidence and self-esteem due to obtaining operator certification			
DESCRIPTION			
<b>Definition:</b> Qualitative measure as reported by the trainee and his/her supervisor in response to TIA questionnaire and interview			
<b>Unit of Measure:</b> Percentage reporting degree of improvement in attitude, confidence and self-esteem resulting from obtaining certification			
<b>Disaggregated by:</b> Country, certification program, level, gender, and institution/utility, trainee, supervisor			
PLAN FOR DATA ACQUISITION & REPORTING			
<b>Data Collection Method:</b> TIA questionnaires and interviews (CIS may allow posting)			
<b>Data Source(s):</b> Trained operators and their immediate supervisors at participating utilities			
<b>Frequency/Timing of Data Acquisition:</b> Upon completion of training and at 6-month interval thereafter.			
<b>Reporting of Data:</b> CIS reports. IWSMR quarterly and annual progress reports			
PERFORMANCE INDICATOR VALUES			
Year	Target	Actual	Notes
1, 2	80%		Trainees and supervisors reporting positive improvement via TIA
THIS SHEET LAST UPDATED: October 2014			

IWSMR Performance Indicator Description			
<b>Program Objective:</b> Improved Water and Sanitation Services in the MENA region			
<b>Program Result:</b> 2. Scaled up operator certification programs to a regional level			
<b>Intermediate Result:</b> 2.1 Enhanced training materials and certification framework			
<b>Indicator:</b> Number of courses (materials) and tests finalized for regional certification			

DESCRIPTION			
<p><b>Definition:</b> Operator certification and training courses/tests approved by the ACWUA Board and finalized for regional use. Each ACWUA course includes: Trainee Guide; Trainer Guide; Visual Aids; and, Tests (Controlled by CAQA)</p> <p><b>Unit of Measure:</b> Operator certification programs, courses, and associated tests:</p> <ul style="list-style-type: none"> <li>• Water Treatment Operator – 4 Courses (1 per operator level)</li> <li>• Water Distribution Operator – 2 Courses plus Nonrevenue Water</li> <li>• Wastewater Treatment Operator – 4 Courses</li> <li>• Wastewater Collection Operator – 2 Courses</li> <li>• Utility Manager – 1 Course</li> <li>• TOT – 1 Course</li> <li>• ISD – 1 Course (not certified by CAQA)</li> </ul> <p><b>Disaggregated by:</b> Course delivery type: traditional classroom training and/or distance learning.</p>			
PLAN FOR DATA ACQUISITION & REPORTING			
<p><b>Data Collection Method:</b> Report of ACWUA Board approval of programs, courses, tests</p> <p><b>Data Source(s):</b> ACWUA Secretary General (or delegate)</p> <p><b>Frequency/Timing of Data Acquisition:</b> ACWUA approval</p> <p><b>Reporting of Data:</b> CIS status reports: programs, courses, tests. IWSMR quarterly and annual progress reports</p>			
PERFORMANCE INDICATOR VALUES			
Year	Target	Actual	Notes
1, 2	15	1	<p><b>ISD was added in 2014. Additional high priority programs/courses may be identified in the Assessment (Stage 1 and 2). Development will be based on available time and resources. Only TOT was delivered in Year 1.</b></p>
THIS SHEET LAST UPDATED: October 2014			

IWSMR Performance Indicator Description			
<p><b>Program Objective:</b> Improved Water and Sanitation Services in the MENA region</p> <p><b>Program Result:</b> 3. Improved performance of regional water and wastewater utilities by leveraging USAID-funded improvements</p> <p><b>Intermediate Result:</b> N/A</p> <p><b>Indicator:</b> Utility performance measures selected for each twinning activity based on scope of partnership</p>			
DESCRIPTION			
<p><b>Definition:</b> Each twinning activity (bilateral; multilateral) targets improvement in a specific utility function e.g., treatment efficiency, collection rates, non-revenue water (NRW) rates. Depending upon the function identified for the twinning exchange, specific quantitative indicators will be determined and included in the twinning agreement MOU signed by ACWUA and the partner utilities.</p> <p><b>Unit of Measure:</b> As per indicators specified in the MOU</p> <p><b>Disaggregated by:</b> Twinning partner utilities as required</p>			
PLAN FOR DATA ACQUISITION & REPORTING			
<p><b>Data Collection Method:</b> Twinning MOU; Methods as appropriate for the agreed indicators</p> <p><b>Data Source(s):</b> TBD as appropriate for the agreed indicators</p> <p><b>Frequency/Timing of Data Acquisition:</b> Upon completion of the twinning activity and at 6-month interval thereafter</p> <p><b>Reporting of Data:</b> CIS Twinning Reports. IWSMR quarterly and annual progress reports</p>			
PERFORMANCE INDICATOR VALUES			

Year	Target	Actual	Notes
2	TBD		Based on utility function and related indicators
THIS SHEET LAST UPDATED: October 2014			

<b>IWSMR Performance Indicator Description</b>			
<b>Program Objective:</b> Improved Water and Sanitation Services in the MENA region			
<b>Program Result:</b> 3. Improved performance of regional water and wastewater utilities by leveraging USAID-funded improvements			
<b>Intermediate Result:</b> 3.1 Increased exchange between water and wastewater utilities			
<b>Indicator:</b> Number of twinning arrangements piloted			
DESCRIPTION			
<b>Definition:</b> A twinning arrangement links a mentor utility that excels in a particular function with one or more partner utilities that recognize their need to improve in the specified function. Twinning arrangements can be bilateral involving a pair of utilities; or, multilateral, where one mentor utility shares its practices with more than one partner utility. Whether bilateral or multilateral, each exchange is counted as a single twinning arrangement.			
<b>Unit of Measure:</b> Number of twinning arrangements (bilateral; multilateral)			
<b>Disaggregated by:</b> Utility function, country, gender, and institution/utility.			
PLAN FOR DATA ACQUISITION & REPORTING			
<b>Data Collection Method:</b> MOUs; Twinning Completion Reports			
<b>Data Source(s):</b> ACWUA Secretary General (or delegate); CIS Twinning Reports			
<b>Frequency/Timing of Data Acquisition:</b> Upon signed of twinning MOUs and completion of twinning activity			
<b>Reporting of Data:</b> CIS Twinning Reports. IWSMR quarterly and annual progress reports			
PERFORMANCE INDICATOR VALUES			
Year	Target	Actual	Notes
2	5		Implementation of twinning activities is contingent upon securing donor funding. 10 additional twinning activities planned
THIS SHEET LAST UPDATED: October 2014			

## **Annex B - Training Impact Assessment – Description and Year 1 Status**

*Background* – As the project name indicates, the goal of IWSMR is improving overall water and wastewater utility performance, operation and maintenance (O&M) and service delivery throughout the MENA region. To contribute to this outcome, IWSMR is assisting ACWUA to establish a regional operator certification and training program including highly defined career paths stipulating detailed need-to-know competencies. This competency hierarchy is supported by a standardized training and testing program customized for particular regional needs from successful US models.

*Status* - During Year 1, IWSMR initiated the process to take advantage of the Training Impact Assessment (TIA) approach developed by the USAID/Jordan OMT Project for use by ACWUA to assess the impact of ROCTP courses on improved utility O&M performance. As per the approved IWSMR Work Plan and Implementation Plan/Year 1 and 2, the ROCTP courses will take place in Year 2 commencing with the Wastewater Treatment Operator Level 1 course in October 2014. This training and all subsequent ROCTP courses will undergo the full TIA data collection, analysis and reporting as fully described below.

*Purpose* – Although the reporting of results achieved by operator trainees on standardized certification tests provides an indication of the degree of learning that has been accomplished, it does not show the impact of the training on the job and any associated O&M performance improvement by the work unit or the facility as a whole. Therefore, in Year 2 IWSMR is assisting ACWUA in implementing and institutionalizing the TIA approach to measure and report the O&M performance impacts of certification and training at utilities and facilities participating in the ACWUA operator certification and training program. Initially the TIA will be applied at pilots to be conducted by the IWSMR project. ACWUA is committed to continue to apply TIA as ACWUA proceeds to scale-up ROCTP at additional member utilities.

This TIA will collect both quantitative and qualitative utility data using 2013 as the pre-training O&M performance baseline and compare that with the post-training O&M performance impact at pilot facilities. The findings of this assessment will be used to further improve the training program and to assist managers in supporting training and certification to achieve the greatest results.

*Theory* - There is wide recognition that capacity building and training are prerequisites to development. However, most evaluations of capacity building stop well short of attributing benefits specifically to training. Most only go so far as to claim that the capacity building made a significant contribution to achieving objectives. The IWSMR project and ACWUA are committed to the assessment of the ROCTP impact on the O&M at treatment and network facilities. The approach to be used here is based on the following basic assumptions:

- Improving human capacity through relevant training (formal or informal) is inherently valuable and absolutely necessary for the achievement of performance improvement,
- Given a supportive organizational environment, individual employees will apply newly acquired knowledge and skills on the job,

- The effects of these changes in practice and/or behavior can be observed, described, often measured based on the controls and accomplishments reported, and,
- These effects can have a positive impact on productivity, efficiency, and cost of services or outputs delivered.

The ultimate beneficiaries of the training and certification, apart from the trainees in terms of greater self-esteem and financial reward, are the water/wastewater utilities and their customers. It is accepted here that improved individual performance will lead collectively to facility O&M that ensures greater compliance with potable water, effluent quality, and environmental standards as well as protecting the investment in treatment and network infrastructure and contributing to its sustainability.

*The Enabling Environment* – The greatest variable when considering attribution is the enabling environment, which plays a key role in determining the degree to which employees are encouraged and supported in the on-job application of new knowledge, skills, behaviors, and practices. As a rule of thumb, performance improvement interventions that, along with relevant high-quality training, include a nurturing management commitment, securing related financial resources, and providing access to the necessary tools and spare parts will be more successful in achieving and demonstrating measurable results.

The IWSMR project and ACWUA program advocate strongly for an operator training and certification program that adopts a pro-active change strategy that recognizes the importance of the enabling environment in achieving performance impacts. The managers of ACWUA member utilities that participate in operator certification pilots and training will sign a joint MOU with ACWUA and IWSMR stating that they fully understand the purpose of the ROCTP courses, that they will abide by the program prerequisite conditions, and that they will encourage on-job application of newly acquired ROCTP knowledge and skills by the trained operators. IWSMR and ACWUA will conduct orientations to kick-off training at each site to secure management buy-in commitment.

*Assessment Design* – Most training takes place in an organizational setting, typically in support of skill and knowledge requirements originating in the workplace. This certainly applies to the ACWUA operator training and certification program. The job performance competencies, knowledge, and skills supported by the ACWUA program are based on the need-to-know criteria developed by the Association of Boards of Certification (ABC) by conducting on-going job task assessments of US and Canadian treatment plant and network operators. The ABC criteria have been reviewed by local subject matter experts in Jordan and Egypt and tailored to the specific needs and requirements of MENA operators.

The important relationship between training and the workplace has been adhered to in the design of the ACWUA training and certification program. Using this relationship as a framework, the following four basic points can be identified at which the IWSMR project will take measurements, conduct assessments, and reach judgments: Before Training; During Training; After Training or Before Returning to the Job; and, On-the-Job at the Facility.

Collecting data at these four points provides an understanding of the effectiveness of the training and the impact on performance at the plant. Collecting data before training establishes the performance baseline and provides a picture of the performance improvement expectations of operator trainees, their

supervisors, and company managers. Any changes in performance resulting from the operator training and certification program will be measured against this initial 2013 baseline for the IWSMR ROCTP pilots.

Testing during and after training measures the degree of new learning taking place as well as the reaction of the trainees to the instruction itself – in other words, how well the trainees liked the training.

Monitoring the trainees when they are back on the job measures changes in behavior or the degree to which newly learned practices are being applied. The measureable quantitative and qualitative results of the trainee application of new practices can provide an assessment of the training impact on individual, work unit, and overall plant performance.

*Quantitative Measures* – Practical indicators of measureable facility performance typically available at MENA utilities have been determined with the cooperation of ACWUA and regional utility managers using 2013 as the baseline. Within the international water sector, baseline and performance data collection is encouraged in the following utility functions: Operations and Maintenance, Finance, Customer Service, and Human Resources/Staff Training. As well as tracking ROCTP implementation and operator certification and training via the ACWUA Certification Information System and the IWSMR PMP, indicators which are linked directly to the IWSMR results framework PR3 – Improved performance of regional water and wastewater utilities through leveraging USAID-funded improvements are being applied for the initial ACWUA pilots including:

Quality of W/WW treated – Non-compliance Citations/Year

Major Unplanned Shut-downs (service interruptions)/Year

Emergency Actions (unit; facility)/Year

Accident Reports (unit; facility)/Year

Operating Costs (unit; facility)/Year

Maintenance Costs (unit; facility)/Year

*Qualitative Measures* - In addition to collecting facility performance data, the training impact assessment also collects qualitative, opinion-based input from trainees and their supervisors/managers using standardized surveys and interviews for pre- and post-training comparison. For all IWSMR ROCTP pilots, on-the-job observation of trainee practical application and performance improvements at their facilities will be conducted periodically relying primarily on cost-effective survey versus interview methods to assess use of new knowledge and skills. These surveys require the respondent to provide their opinion on the following issues: Relevance of Training; Language of Instruction; Improved Knowledge/Understanding; Improved Attitude/Confidence and Self Esteem; Improved Technical Skills; Improved Management Skills; and Impact of Training on the Job.

*Frequency* - The initial indicators and survey data gathering are associated with ROCTP pilot implementation commencing in Year 2. The current ACWUA TIA procedures call for impact data collection as follows: Trainee – Pre/Post (6 months; annual); Supervisor and Manager Pre/Post (6 months; annual); On-Site Observation of Performance (associated with Interview). The data collection periods are

flexible and recognizing that IWSMR will end in September 2015, the project intends to accelerate qualitative data collection for TIA reporting purposes.

*TIA Capacity Building* – Initial application of the TIA approach will be led by IWSMR. In the course of Year 2, as ACWUA staff become familiar with the TIA, it will be transferred to ACWUA responsibility so that ACWUA can continue to track and report training impact on a long-term sustainable basis.



## ANNEX D: Project Bibliography- Report Prepared to Date

### Deliverables Submitted to USAID per Contract Requirements:

Report No.	Title of Report	Submission Date
01	Year 1 Work Plan September 30, 2013 – September 29, 2014	November 27, 2013
02	Performance Monitoring Plan (PMP)	November 27, 2013
03	1st Quarterly Progress Report	January 15, 2014
04	Quarterly Financial Report	January 15, 2014
05	Assessment Report and Draft Implementation Plan (IP)	January 31, 2014
06	IP Review Summary Agreement	April 01, 2014
07	2 <sup>nd</sup> Quarterly Progress Report	April 15, 2014
08	Quarterly Financial Report	April 15, 2014
09	Branding Implementation Plan and Marking Plan	June 16, 2014
10	3 <sup>rd</sup> Quarterly Progress Report	July 15, 2014
11	Quarterly Financial Report	July 15, 2014
12	Year 2 Work Plan September 30, 2014-September 29, 2014	September 05, 2014
13	First Annual Progress Report (Includes 4 <sup>th</sup> QPR)	October 17, 2014

### Other Reports Prepared by IWSMR:

Title of Report	Prepared By	Preparation Date
STTA Consultant Trip Reports for Howard Sokoloff, Elyse Wesbey, Courtney Mallow	Howard Sokoloff, Elyse Wesbey, Courtney Mallow	November 25, 2013 December 12, 2013 August 06, 2014
Algiers ACWUA Best Practices Conference Trip Report	Adi Najjar, former IWSMR COP	December 15, 2013
Egypt-Jordan Taskforce Meeting Trip Report	Zaid AlQaisi, DCOP/Training Specialist	August 20, 2014
West Bank TOT Trip Report	Ayad Al-Ashram, TOT Trainer	August 27, 2014
Yemen TOT Trip Report	Ayad Al-Ashram, TOT Trainer	August 27, 2014
Egypt TOT Trip Report	Zaid AlQaisi, DCOP/Training Specialist	October 16, 2014

