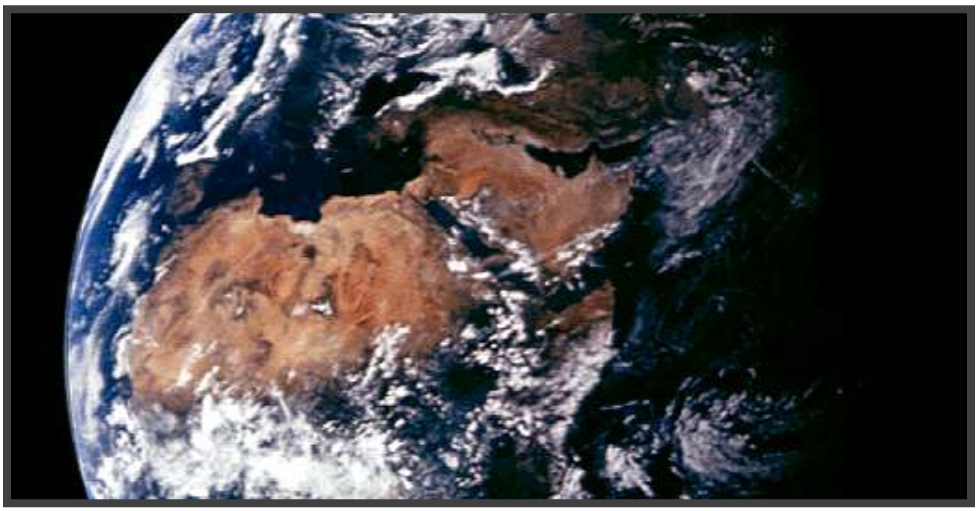
Middle East Water and Livelihoods Initiative (WLI)

Improving Rural Livelihoods through Sustainable Water and Land-use Management in the Middle East: Egypt, Iraq, Jordan, Lebanon, Palestine, Syria & Yemen

WLI Quarterly Progress Report



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Executive Summary

The fourth quarter of 2010 witnessed the implementation of a number of WLI activities. This included a visit to ICARDA headquarters in Aleppo (Syria) by a team from the University of Florida, composed of Drs. Sandra Russo, Kathy Colverson and Samira Daroub, on 10-15 October 2010. A training workshop on 'Modern Techniques for Protected Agriculture' was also organized within the scope of the WLI in Qatar during the period of 31 October – 4 November 2010, for a total of 25 experts in protected agriculture and soilless culture from the WLI irrigated benchmark agro-ecosystems Countries (Egypt, Iraq and Yemen) and Gulf Countries (Bahrain, Qatar, Kuwait, Saudi Arabia, Sultanate of Oman, Yemen and UAE). Additionally, an ICARDA mission led by Dr. Theib Oweis (WLI Project Manager) and Dr. Fadi Karam (WLI Project Coordinator) visited the Tal Amara Research Station (Central Bekaa Valley) of the Lebanese Agricultural Research Institute (LARI) to review the progress of activities in 2010 and to discuss potential priorities for the 2011 work plan with the Lebanon WLI team. Finally, a delegation of the WLI participated at the inception workshop of the 'Community-Based Optimization of the Management of Scarce Water Resources in Agriculture in Central and West Asia and North Africa Project' (Water Benchmarks of CWANA – Phase II), 1-3 December 2010 in Amman, Jordan. The workshop brought together representatives of the CWANA Water Benchmark Project participating countries (Egypt, Jordan, Morocco), as well representatives from countries of satellite sites (Algeria, Libya, Sudan, Syria and Tunisia).

The visit to ICARDA by the University of Florida (UF) was designed to create a flagship training course for the WLI community in the areas of gender, extension, water management, and distance education, as well as to discuss the support that ICARDA can provide to create distance education materials and provide long range support for training modules on line. There was also discussion to create faculty development opportunities for the American University of Beirut and graduate student research at the WLI benchmark sites. A WLI training schedule for 2010-11 was then proposed as the following:

- Protected Agriculture (Qatar, November 2010)
- Biophysical Characterization (Yemen, December 2010)
- Gender Integration (Egypt, January 2011)
- Distance Education (Lebanon, January 2011)
- Extension/Outreach Skills (Syria, February 2011)
- GIS Application (Jordan, March 2011)
- Crops for Dry Areas with emphasis to Badia and Rainfed agro-ecosystems (Jordan, March, 2011)
- Water Management and Modeling (Syria, May 2011).

The visit to ICARDA of the UF team was followed by a field trip to the benchmark sites in Syria and Lebanon along the Orontes River Basin, and meetings with the WLI teams in both countries. The duty mission of the UF team was concluded on Friday 15th October by a visit to the American University in Beirut, where a meeting was held at the

university's computing center to discuss areas of collaboration in the area of distance/e-learning.

A training workshop on 'Modern Techniques for Protected Agriculture' was organized within the scope of activities of the WLI, in Doha, Qatar, during the period of 31 October – 4 November 2010. The selection of Doha as a venue for the training workshop falls within the scope of activities of the Arab Peninsula Regional Program (APRP) at ICARDA, of which research on protected agricultural is one of the most important aspects of agricultural development in the Gulf Countries. The training workshop intended to increase the technical skills in the area of protected agriculture for the national agricultural research programs in the WLI irrigated agro-ecosystems (Egypt, Iraq and Yemen). Participants were represented from the following NARS:

- Agricultural Research Centre (ARC) - Egypt
- State Board for Agricultural Research (SBAR) – Iraq
- Agricultural Research and Extension Authority (AREA) – Yemen

The first regional annual coordination meeting of the Phase II Water Benchmarks of CWANA Project was held at the Holiday Inn in Amman, Jordan, 1-3 December 2010. Representatives from participating countries of the benchmark sites (Egypt, Jordan, Morocco), as well representatives from countries of satellite sites (Algeria, Libya, Sudan, Syria and Tunisia) from the project attended the workshop. Furthermore, delegates representing the WLI countries involved in the benchmark Project (Iraq, Lebanon, and Palestine) were also present, as well as the WLI Project Manager, Dr. Theib Oweis, and coordinator, Dr. Fadi Karam.

The workshop was followed by a field trip to the Badia benchmark site, south of Amman, on Friday 3rd December. The workshop addressed issues related to the objectives of the second phase of the project, as well as the work plan for the entire 2011-2013 project duration. Three thematic working groups were formed during the workshop to have breakout discussions on (i) out scaling approaches, (ii) modeling and (iii) socio-economic.

In close commitment with the recommendations of the WLI 2nd Steering Committee that was held at the issues of the Educators' Workshop in Cairo, Egypt (July 1st, 2010) a series of short-term training activities in the areas of gender integration, extension skills, GIS applications, water management and distance/e-learning was planned for immediate implementation in the first and second quarters of year 2011.

Faculty development and research linked to the WLI benchmark sites in the WLI countries is still a challenging issue for the WLI. Identifying a major role to play by the regional hub universities, namely the American University in Beirut, The American University in Cairo, and the University of Jordan is needed.

A committee was created within the WLI to follow on the Feed the Future M&E indicators (FTF), for further study among the WLI stakeholders. The aim is to come up with a pragmatic plan to develop a subset of WLI indicators that track along with the

standard indicators for FTF. This also can help in harmonizing the instruments of the socio-economic surveys with the FTF indicators.

Visit of the University of Florida team to ICARDA (October 10-15, 2010)

Participants

- University of Florida: Dr. Sandra Russo, Dr. Samira Daroub, Dr. Kathleen Colverson

- ICARDA :Dr. Fadi Karam, Dr. Theib Oweis, Dr. Hassan Machlab, Dr. Aden Aw-Hassan, Dr. Malika Martini, Dr. Iman El-Kafass, Dr. Ahmed Al Wadaey, Bernhard Hack, Dr. Kamel Shideed, Mr. Tareq Bremer, Dr. Majd Jamal, Ms. Alessandra Galie

The visit to ICARDA was designed to create training workshops in the areas of gender, extension training, distance education, and water management (see attached agenda), as well as discuss support ICARDA can provide to create distance education materials and provide long range support for training modules on line. There was also discussion to create faculty development opportunities for the American University of Beirut and graduate student research at the WLI benchmark sites.

The visit opened with a welcome from Dr. Theib Oweis, Director, Integrated Water and Land Management Program. He discussed his desired outcomes for the week's meeting:

1) Develop draft workshop agendas for the Gender, Distance Education and Extension short courses. Include session content, location, and dates as well as possible participants.
2) Create the short courses with the ability to convert them to a distance education format.
3) Include as many ICARDA staff as appropriate in developing the short course agendas.
4) Meet with the American University in Beirut to develop plans for faculty development, recruitment plan for graduate students and possible research at the WLI benchmark sites.
5) Develop communication strategies for sharing information from ICARDA about the WLI project.

Gender Workshop Discussion

Malika Martini gave a brief overview of what she does in regards to gender training at ICARDA and the need for additional assistance and capacity building. Aden Aw-Hassan discussed the need to integrate gender approaches into research and increase gender awareness in researchers of the WLI benchmark sites. There was a general discussion around the exact purpose of the workshop and who should be invited to participate. The final decision was to invite two bio-physical researchers and one socio-economic researcher per WLI benchmark site. They should be a mid-level professional and include both men and women from each site. These recommendations will be sent to each site for them to recommend attendees. The final workshop title will be "Integrating Gender Approaches into Research at the WLI Benchmark Sites". The dates are tentatively set for January 9-13th in Egypt (exact location TBD) (Annex 1).

Responsible lead US University: University of Florida.

Extension Workshop Discussion

Theib Oweis gave an overview of his expectations for this workshop that would improve extension agents' skills and include training on: providing participatory approaches, increasing communication skills, understanding social marketing and managing change, and how to encourage behavioral changes. In addition, agents would be exposed to new and innovative methodologies for communicating with farmers, and would learn how to work with policy makers to create change in the country extension systems.
The audience for this workshop would be extension agents with interest or experience in training, include men and women from each WLI benchmark site and be able to provide a description of their interest when they apply. The course would be offered in the spring of 2011 in Aleppo. Sandra Russo will send a draft agenda to Dr. Jim Hill at UC Davis who is responsible for coordinating the overall extension short course (Annex 2).
Responsible lead US University: UC-Davis

Distance Education Workshop Discussion

There was discussion around the facilities and support offered by both UF and ICARDA to organize the workshop. This included the development of "Expectations for WLI Trainers" who are presenting the short courses. There is a strong interest to make all training sessions as participatory and interactive as possible, and be able to post all short courses and training modules as e-learning on the ICARDA website. A continuation of this discussion was held at the American University of Beirut on October 15. A revised proposal, which includes an agenda for a visit to AUB by ICARDA's Capacity Development Unit (CDU), Communication, Documentation, and Information Services Unit (CODIS), and Information Technology Unit (ITU) and a workshop for faculty/staff from Middle Eastern Universities will be forthcoming. AUB will take the lead on these efforts with Dr. Daroub, UF.
Responsible lead US University: University of Florida
Responsible lead Middle East University: AUB

Water Management Workshop Discussion

Theib Oweis gave an overview of his expectations for this workshop, using the proposed schedule provided by partners at Utah State University. The intent is to create a workshop that will be used by researchers and extension staff at the benchmark sites to improve their understanding and use of current tools and techniques in water management. It is important to understand that participants will be coming with a variety of skill sets and previous experience and design a course that can be used by all who attend. There is a desire to follow this introductory course with additional advanced courses at a later stage. This course will be taught by trainers from both ICARDA and Utah State University using *the draft agenda* (Annex 3). ICARDA will follow up from this planning meeting with a conference call with USU to confirm the two week training course outline, dates and location.
Responsible lead US University: Utah State University

Remaining prioritized workshop

Short discussions were held about the remaining requested short course on high value crops and market chains. Sandra Russo agreed to follow up with Texas A&M to see if they can take the lead on such a workshop, probably to be delivered in March. Hassan Machlab can contribute materials from working with women-based NGOs in developing processed products for European markets.

Guidelines for trainers

A set of guidelines and principles for trainers were drafted in which trainers are directed to develop materials that lend themselves to becoming on-line training materials.

Meeting with CODIS and ITU

A communication strategy session was held with CODIS and ITU to discuss how to get the WLI materials and messages out to the partners and the public. A re-design of the website was discouraged because of some changes that will be made to a new content management system. Nevertheless, the home page of WLI will be slightly modified to make it more user-friendly. They proposed the WLI use a planning strategy that involves three steps:

1. Need an agreed-upon goal for the website
2. Need content analysis (simple spreadsheet method which they will provide)
3. Need to profile users and their needs.

Meeting with Assistant Director General for International Cooperation at ICARDA

A short meeting with Dr. Kamal Shideed and Tareq Bremer was held to discuss WLI objectives and future plans. Dr. Shideed emphasized the relationship building aspect of the WLI and encouraged future work along these lines. The Project Steering Committee had made recommendations during the Cairo meeting in July which have not yet been fulfilled.

Meeting with Assistant Director General (Government Liaison) at ICARDA

Sandra Russo met with Majd Jamal to discuss issues related to travel and work in Syria as relates to U.S. regulations on working in Syria. Sandra will work with Tareq Bremer to create guidelines for U.S. citizens to ensure that future work at ICARDA goes more smoothly.

Visit to the WLI Benchmark of Al Ghab in Syria and meeting with the GCSAR-WLI support team at Al Ghab Research Station (Sucalbiyeh).

Date and time: October 14th 2010, at 10:30 am

Venue: Al-Ghab Research Center, GCSAR

Participants

- ICARDA: Dr. Fadi Karam, The WLI Manager, Mr. Pierre Hayek (IWLMP)
- UF Team: (Drs. Sandra Russo, Katy Colverson, Samira Daroub)
- GCSAR: Dr. Awadis Arslan (The WLI Focal Point in Syria), Dr. Samir Al-Jedawi (Director of Al Ghab Research Center), Eng. Nader Asaad (Deputy Director of Al Ghab Research Center), Dr. Moammar Dayoub, Eng. Nidal Jouny, Ms. Hamseh Al-Khayer, Mr. Radwan Yusuf, Eng. Wassem Adla, Eng. Dalal Ibrahim, Dr. Boshra Khozam, Eng. Abdul Karim al-Jerdi.

The purpose of the visit was to identify potential intervention sites for the WLI to Al Ghab Research Center in Al-Ghab Region, along the Orontes River Basin, in both Hamah and Homs Governorates.

Topics discussed with the GCSAR and the WLI support team in Syria included:

- Bio-physical, socio-economic, and livelihoods information about the Al Ghab region

- Cultivated areas, crops, agricultural practices, and cropping pattern in the Al Ghab region

Dr. Sandra Russo recommended to strongly involving the WLI support team in Syria in the gender and socio-economic training courses that will be organized in 2011 under the umbrella of the WLI.

Participants of the meeting agreed to select two potential sites in the Al Ghab region for the implementation of the WLI activities. The first one will be in Hamah Governorate focusing on field crops, with a direct link to the GCSAR Al-Ghab Research Center in Sucalbiyeh, and the second in Homs Governorate focusing on fruit trees, with direct link to the GCSAR Mukhtaria Research Station.

View of the experimental olive groves at Mukhtarieh Research Station near Homs (Syria)

Visit to the WLI Benchmark of Orontes River in Lebanon and meeting with LARI-WLI support team in El Qaa village (Northern Bekaa Valley)

Date and time: October 14th 2010, at 15:00

Venue: El Qaa Development Association, El Qaa

Participants

- ICARDA: Dr. Fadi Karam, Dr. Hassan Machlab (Director of ICARDA Office in Beirut), Mr. Pierre Hayek (IWLMP)
- LARI: Randa Massaad (The WLI Focal Point in Lebanon), Ihab Jomaa, Hanaa Chehab, Sleiman Skaf, Fadi Naddaf, Rana Lahoud, Naji Araji, Ali Zaeiter.

The purpose of the visit was to meet with the WLI team in Lebanon and to identify priority areas of interventions for the WLI in the Northern Bekaa Valley along the Orontes River Basin.

Topics discussed with the WLI support team in Lebanon included the following:

- Bio-physical, socio-economic and livelihoods information about Northern Bekaa Valley;

- Cultivated areas, crops, agricultural practices and cropping pattern in Northern Bekaa Valley.

The meeting was held at the El Qaa Development Association. A group of 25 farmers also attended the meeting. The President of the association gave an introductory statement focusing on the challenges that the agricultural sector is facing in this part of the country, especially with regards to the lack of public interventions in irrigation projects, lack of extension services, and deficient marketing systems of agricultural products. The WLI coordinator, Fadi Karam, gave an overview on the WLI objectives and activities, with emphasis to the Lebanon benchmark site. He also added that a solid collaboration with the local communities will help implement the different WLI activities. The meeting participants observed a water delivery system at the agricultural lands in El Qaa village, where large water losses occur due to the use of earth channels. A brief visit to the agricultural land in the uplands was concluded at the end of the visit.

Meeting of the WLI group with the farmers in El Qaa village in Northern Bekaa Valley (Lebanon)

Specialized Training Workshop on 'Modern Techniques for Protected Agriculture' (31 October - 4 November 2010, Doha, Qatar

Within the scope of activities of the WLI, ICARDA organized a training workshop on 'Modern Techniques for Protected Agriculture' in Doha, Qatar, during the period of 31 October – 4 November 2010. The selection of Doha as a venue for the training workshop falls within the scope of activities of the Arab Peninsula Regional Program (APRP) at ICARDA, of which research on protected agricultural is one of the most important aspects of agricultural development in the Gulf Countries.

The training workshop intended to increase the technical skills in the area of protected agriculture of the national agricultural research programs in the WLI irrigated agro-ecosystems (Egypt, Iraq and Yemen).

The training workshop aimed to enhance the knowledge of participants and get them practically acquainted with the modern techniques for PA including:

- Soilless production techniques (Hydroponics)
- IPM and grafting techniques.

Participants included researchers and extension agents from the NARS of Arabian Peninsula countries who are involved in ICARDA-APRP technology transfer projects in their respected countries. The training workshop was held at Qatar and Al Sulaiteen Agricultural & Industrial Complex (SAIC) farm, about 20Km outside of Doha. SAIC farm is one of the advanced farms in the region that has suitable equipment and facilities for this kind of training program including cooled greenhouses with soilless production systems, growing rooms, nurseries, etc.

Participants from the three irrigated-ecosystems benchmarks involved in the WLI (Egypt, Iraq and Yemen) attended the workshop:

- Agricultural Research Centre (ARC) - Egypt
- State Board for Agricultural Research (SBAR) – Iraq
- Agricultural Research and Extension Authority (AREA) – Yemen

More than 30 researcher and extension agents from 10 countries including Iraq, Gaza, Yemen, Egypt, Bahrain, UAE, Kuwait, Oman, Qatar, and Saudi Arabia attended a training workshop on "Modern Techniques for Protected Agriculture" from 31Oct to 4 Nov 2010 in Doha, Qatar. The training workshop was organized by ICARDA and AVRDC-The World Vegetable Center in collaboration with the Qatari Ministry of Environment and Al Sulaiteen Agricultural & Industrial Complex (SAIC).

The course was inaugurated by Mr. Yousef Khalid Al-Khulaifi, Director of Agricultural Affairs, Ministry of Environment (MoE), Qatar who welcomed the participants and expressed the importance of protected agriculture for Qatar and the region's food security. This was followed by Dr Ahmed Moustafa, Regional Coordinator of ICARDA-APRP and Regional Director of AVRDC-The World Vegetable Center, for a CWANA presentation on improving agricultural productivity and food security in the Arabian Peninsula. The opening ceremony was attended by H.E. Sheikh Dr. Faleh Bin Nasser Al- Thani, Director General of Agricultural Research & Development; H.E. Mr. Mohamed Fahad Al-Faihani Advisor for Agricultural Research; Mr. Ali Al Kabaissy, Advisor for Agricultural Development and heads of different departments of MoE.

The course was organized at SAIC using its modern and various production systems including fully controlled growing rooms, multi-span cooled greenhouses and different Hydroponics systems. The participants also benefited from the agricultural services offered by the farm, class rooms, and training facilities.

During the training course, participants received a good combination of classroom and practicum sessions focusing on 1) Integrated Production and Protection Management (IPPM), 2) hydroponics systems, 3) Integrated Pest Management, 4) Vegetables grafting and 5) water use efficiency. The training programs were presented by Dr Ahmed T. Moustafa, Protected Agriculture specialist, ICARDA/AVRDC; Dr Gregory C. Luther, Technology Dissemination Specialist, AVRDC; Dr Fadi Karam, Water Management Specialist, ICARDA; and Mr. Wu Deng-Lin, Vegetable Grafting Specialist, AVRDC. A closing session was organized at SAIC on 3rd November where Mr. Abdullah Al-Sulaiteen, Chairman of SAIC, discussed with participants the importance of agriculture for the region as well as advantages and opportunities of protected agriculture in Qatar.

On 4 November, a field visit to the Otoria Research Station, MoE, Qatar was organized where the participants became acquainted with the Qatar research activities on Protected Agriculture. Participants also visited the Arab Qatari Agricultural Production Company (AQAP) and its different protected production systems such as the net houses and floriculture under cooled greenhouse conditions.

The training sponsors included the following:

- Technology Transfer Program to Enhance Rural Livelihoods and Natural Resource Management in the Arabian Peninsula (AFESD, IFAD and OFID)
- Establishment of Partnership for Technology Development and Adaptation in Vegetable production in Bahrain and Saudi Arabia (MOFA, Taiwan)
- Enhancing Food Security and Livelihood of Rural Poor Community in Palestine, Improve Productivity and Quality of PA Production in GAZA (The Netherlands Government)
- The Middle East Water & Livelihood Initiative (USAID-WLI)

By the end of the training workshop, all participants found the training materials applicable in practice. About 95% of participants evaluated that the subjects covered were useful (very good and excellent). 71% of participants were completely positive that the training course would add new knowledge to their information prior the training course. As for the training methods, most of the participants were satisfied with the training methods and learning process. About 90% evaluated the clarity of presentation as very good and excellent, and about 80% evaluated the practical sessions sufficient (very good & excellent). Support of trainers for interaction with trainees was ere evaluated to be very good & excellent by about 90% of participants. Meanwhile, 96% of participants were satisfied by answers received.

The WLI-Lebanon Coordination Meeting (Tal Amara, 15 November 2010)

Participants

- ICARDA: Drs Theib Oweis and Fadi Karam
- Lebanon WLI team: LARI: Randa Massaad (WLI Focal Point in Lebanon), Ihab Jomaa (bio-physical team leader), Hanaa Chehab (socio-economic team leader), Sleiman Skaf (agricultural engineer), Fadi Naddaf, Rana Lahoud, Naji Araji (soil expert), Joseph Kahwaji (Agricultural engineer), Georges Mansour (agricultural engineer) and Ali Zaeiter.

An ICARDA mission led by Dr. Theib Oweiss (WLI Project Manager) and Dr. Fadi Karam (WLI Project coordinator) visited the Tal Amara Research Station (Central Bekaa Valley) of the Agricultural Research Institute of Lebanon. The objectives of the meeting were to (i) appraise the progress of activities in 2010, (ii) discuss potential priorities for the 2011 work plan and (iii) give an outlook on the Feed-The-Future development indicators and the ways how to harmonize them with the WLI socio-economic indicators.

During the meeting, Fadi Karam presented the FTF development indicators with emphasis to the '17 Higher Level Indicators' (Goal Level Statement; First Level Objectives; Second Level Objectives (Annex 4). He then presented the standardized template of the annual report that should be finalized and presented to the project coordinator in both electronic and hard copies before the first WLI coordination meeting, planned for early 2011. After that, the WLI Focal Point in Lebanon, Randa Massaad, gave a 30-minute presentation focusing on the work achievements in 2010, with emphasis on bio-physical and socio-economic studies. The leaders of the bio-physical team (Ihab Jomaa) and the socio-economic team (Hanaa Chehab) presented explicitly the steps followed for data collection and elaboration.

Steps ahead and recommendations

It was agreed that the WLI support team in Lebanon should undertake solid steps towards meeting the objectives and activities of the 2010 work plan, mainly with regard to the bio-physical and socio-economic characterizations.

Biophysical characterization

The WLI support team in Lebanon will collect general information on Orontes Basin, including boundaries and mapping, retrieving of the available maps and images and digital layers, namely, topography (contour and stream lines, roads), landscape (dams, lakes, irrigation and drainage systems, etc…), cities and villages, land cover/land use maps; soil classification maps at any scale; soil survey data; land degradation/soil erosion maps; Weather stations' distribution map; weather data maps (rainfall, temperature, etc…); geomorphology map (1:50,000 scale); aquifers maps; cadastral maps; climate characterization, soil characterization, data on water resources and quality, common cropping patterns, biodiversity data collection, livestock data collection, including also fisheries and poultry.

Socio-economic characterization

The WLI support team in Lebanon will conduct a socio-economic characterization, including a review of the existing socio-economic studies and relevant on–going projects in the Orontes Basin. This will help (i) identifying areas of gaps of 'no available information', (ii) listing of current activities/studies, (iii) updating of the existing information, and (iv) incorporating the WLI specific research at the benchmark scale.

The secondary data collection will include (i) farmer group interviews; (ii) identification of pilot sites in cooperation with the bio-physical team; (iii) identification of prioritized criteria for the selection of target communities for conducting a 'Rapid Rural Appraisal' (RRA).

Participation of the WLI in the inception workshop of the CWANA Water Benchmark Project – Phase II (1-3 December, 2010, Holiday Inn Hotel, Amman, Jordan)

The Water Benchmark Project, coordinated by ICARDA, is now in its second phase. Phase II, supported by the Arab Fund for Economic and Social Development, aims to scale out technologies developed during the first phase and simultaneously develop new tools for water management. Ten countries are involved: Algeria, Egypt, Iraq, Jordan, Libya, Morocco, Palestine, Sudan, Syria and Tunisia. The project coordination and steering committee meetings were held in Amman, Jordan, 1-3 December.

The first regional annual Coordination workshop of Water Benchmarks of CWANA Project – Phase was held at the Holiday Inn Hotel in Amman, Jordan, 1-3 December 2010. Representatives from participating countries of the benchmark sites (Egypt, Jordan, Morocco), as well representatives from countries of satellite sites (Algeria, Libya, Sudan, Syria and Tunisia) attended the workshop. Furthermore, delegates from the WLI countries (Iraq, Lebanon, and Palestine) were present. The workshop was followed by a field trip to the Badia benchmark site, southern of Amman, on Friday 3 December.

The coordination meeting was attended by 36 delegates from all 10 participating countries, as well as national coordinators of the WLI (which targets Iraq, Lebanon, Palestine, Sudan, and Syria) to identify linkages between the two projects. Research work

plans and budgets were developed for 2011 and subsequently approved by the Steering Committee. In addition, regional activities were identified for three research themes:

- Out-scaling improved technologies using GIS tools for agro-ecological mapping and targeting of interventions
- Modeling to plan and monitor water use and allocation, evaluate the impacts of water and land management technologies, and inform policy development
- Socioeconomics: developing policies and institutional frameworks to improve water management.

Working groups were constituted for each theme, mandated to enhance synergies among the different partners and the two projects (Water Benchmark, Water and Livelihoods Initiative), sharpen research focus, and standardize research methods and approaches.

The work achievements in the three agro-ecological benchmarks (Rangeland, Rainfed and Irrigated) and their related satellite sites were presented. National Focal Points also presented work plans for year 2011. This was followed by general discussion for the three benchmark sites and the main changes suggested for the work plans was identified. Moreover, three thematic groups on modeling, out-scaling and socio-economic group were identified. Separate meetings of the thematic groups were then held to identify the regional activities for implementation in 2011.

The participants largely discussed the WLI-CWANA BM Project coordination policy. The objective is to have joint collaboration between the two projects, with the aim of (i) enhancing complementarities, links and synergies among the different partners in the two projects and (ii) better focus research activities, improve science quality and standardize the research methods and approaches in the WLI and CWANA project countries.

The WLI project coordinator chaired the thematic group on socio-economic activities. In his presentation, Fadi Karam gave an overview of the Feed-the-Future (FTF) M&E indicators of the U.S. Government's global hunger and food security initiative for further study among the WLI stakeholders and development partners. The objective is to come up with a pragmatic plan to develop a sub-set of WLI indicators that track along with the standard indicators for FTF, especially those retained as "higher level" indicators (Annex 5):

- Goal Level Statement (2 indicators)
- First Level Objectives (6 indicators) at national level
- Second Level Objectives (9 indicators) at program level

In addition to the 17 indicators, three other indicators falling within the Agricultural Program Area were considered relevant to the WLI:

1. Number of Rural Households Benefiting Directly from U.S. Government Interventions in Agriculture

2. Value of Incremental Sales (Collected at farm/firm level) attributed to Feed The Future Implementation

3. Number of farmers, processors, and others who have adopted new technologies or management practices as a result of USG assistance (

The above-mentioned three indicators are 'Element Level Indicators' (either output or outcome).

In order to be able to study the FTF indicators and to produce a sub-set for the WLI, a socio-economic thematic group was formed to reply to the needs of this part of the socio-economic studies and to study the impacts of the selected indicators in the WLI countries:

- Group Chair: Dr. Samia Akroosh (NCARE-Jordan)
- Members:
    - Dr. Inas Saleh (ARC-Egypt)
    - Dr. Mohammed Abed (NARC-Palestine)
    - Dr. Laamari Abdelali (INRA-Morocco)
    - Mr. Hanaa Chehabeddine (LARI-Lebanon)
    - Dr. Mouammar Dayoub (GCSAR-Syria)
    - Dr. Fadi Karam (ICARDA)

The socio-economic thematic committee also evaluated the WLI-BM Project training programs for the upcoming activities in gender (Cairo, February 2011) and extension/outreach (Aleppo, March 2011).

At the end of the workshop, the participants visited the site in Majidyya village (45 Km south east of Amman). The Jordanian support team in the project showed to the workshop participants the rainwater harvesting systems that were implemented in the area (Valerrani and continuous ridges) within the frame activities of CWANA water benchmark project. The team also described the monitoring and data collection systems, which help evaluating the impact of water harvesting on soil erosion, environment and crop productivity.

A group photo of the participants to the workshop at Holiday Inn Hotel (Amman, Jordan)

Activities under development

A number of activities are in the planning phases, with the expected dates to be carried out in 2011. This includes advanced bio-physical characterization of the benchmarks using GIS techniques, analysis of socio-economic data and surveys, partnership with UF to develop education and training-related activities and bilateral mobilization efforts with USAID country missions to raise funds for the WLI bilateral proposals.

Benchmark characterizations
Because varying levels of socio-economic data exist at each benchmark site, there is a need to fully develop and homogenize inputs across all benchmark sites. Terms of reference (TORs) for the socio-economic studies were developed and sent to NARES to start collecting secondary level data (Phase I). A series of workshops has been organized at ICARDA HQ to assist the WLI teams in conducting bio-physical characterization and socio-economic surveys. Phase I will be followed by the recruitment of a consultant, who will be responsible for reporting on developments on food security, developing indicators to evaluate human development and gender-related data at the benchmark site.

Partnership with UF to develop education and training-related activities
ICARDA is working closely with UF to develop training activities benefitting WLI stakeholders. Initial activities will be designed for researchers and extension agents. This will be followed by technically-skilled training courses on water management and high value crops and market chains. UF is taking the lead by contacting US universities to take an inventory of what is available from US institutions. A training needs assessment has already been conducted to assess regional university and NARES priorities (Table 1).

Table 1: List of the training activities emerging from the WLI training needs assessment

Training topic	Lead Institution(s)	Contact person(s)	Suggested time and place
Specialized Training Workshop on Modern Techniques for Protected Agriculture(1)	ICARDA-APRP	Dr. Ahmed Moustafa Dr. Fadi Karam	31 Oct - 4 Nov 2010 Doha, Qatar
Integrating gender approaches into research at the WLI benchmark sites(2)	UF ICARDA-SEPRP	Dr. Sandra Russo Dr. Aden-Aw-Hassan	9-13 January, 2011 Cairo, Egypt
Effective Extension Approaches in Agriculture in WLI(3)	UC-Davis ICARDA-IWLMP ICARDA-SEPRP	Prof. Jim Hill Dr. Theib Oweis Dr. Aden-Aw-Hassan	February 2011 Aleppo, Syria
High value crops and market chains	Texas A&M	Prof. Bill Payne	March 2011 Aleppo, Syria
Improving Agricultural Water Management: Innovative Tools and Practices(4)	USU ICARDA-IWLMP	Prof. Jagath Kaluarachchi Dr. Theib Oweis	May 2011 Aleppo Syria

Planned activities for the 1st quarter of year 2011

- Visit of Sarah Tully and Allegra Da Silva (American Association for the Advancement of Science - AAAS - Diplomacy Fellows Program – USAID) to ICARDA (21-25 January 2011). In addition to learning about ICARDA and its overall activities, they will be in Aleppo to discuss the WLI programs. Specifically, they will work with the WLI team to create public awareness materials; help to redesign the WLI website, and discuss funding opportunities for the bilateral components of the WLI from other funding entities (see the WLI two-page briefer in Annex 6). One additional scope of the visit of Sarah Tully and Allegra Da Silva is to work at ICARDA with to develop proposal ideas that can be taken around to the various USAID missions. During their visit to ICARDA, they will be assisted by Dr. Sandra Russo and Prof. James Hill, as well as the project coordination unit (Drs. Theib Oweis, Fadi Karam and Tareq Bremer) with some of the proposal conceptualization, to get them up to speed on the US university side of the WLI partnership. A field visit to the Orontes Benchmark site in Syria will be also prepared for them.

- Visit of Sandra Russo, James Hill and Scott Christiansen to USAID Regional Office in Cairo and to ICARDA (Aleppo, Syria)

  Dr. Scott Christiansen will be heading to Egypt for most of the month of January 2011. As well, a delegation composed of Prof. James Hill from UC-Davis and Dr. Sandra Russo (UF) will go to Cairo around January 18th to meet with Scott and to visit the USAID Regional Mission in Cairo mission staff to create greater awareness on the WLI and MEAS (Modernizing Extension and Advisory Systems) for the Egypt mission.
  Dr. Sandra Russo will as well meet with Dr. Fawzi Karajeh, ICARDA Regional Coordinator of the Nile Basin and Sub-Saharan Research Program in Cairo, and Dr. Soumaya Ibrahim (Gender Specialist) and Dr Tina Jawoloski (American University in Cairo, Desert Development Center) to finalize the program of the upcoming training workshop on 'Gender' (Cairo, 6-10 March 2011).
  Dr. Sandra Russo and Prof. James Hill will then move to Aleppo (21-25 January 2011) to meet with the WLI Management Team and to discuss the gender and extension training courses, as well as other planned courses for 2011, are on target. It is expected the US delegation will meet also ICARDA Director General, Dr. Mahmoud Solh on January 22.

- First WLI annual coordination meeting (ICARDA, Aleppo, February 2011)
- 3rd WLI Steering Committee (February, 2011)
- Gender training workshop (University of Cairo, March 2011)
- GIS training workshop (Amman, Jordan, 2011)

Annex 1: Agenda of the gender training workshop

Suggested Title: Integrating gender approaches into research at the WLI benchmark sites

Purpose

- Train researchers of different disciplines in the benchmark sites on integrating gender dimensions into the WLI, while ensuring gender integration into research outputs.

Expected outputs:

- 20-25 researchers trained on integrating gender approaches into research at the benchmark sites;
- Research plans modified to integrate a gender dimension;
- Identify key collaborators at each benchmark site for gender integration and follow up.

Expected outcomes

- Establish a gender team to share learning between ICARDA and other institutions with gender expertise
- Integration of gender approaches in future research of trainees and participating institutions;
- More researchers to have access to gender learning through distributed e-learning;
- Creation of a network of researchers working on gender issues.

Duration: One week (9-13 January, 2011)

Venue: Egypt (Desert Development Centre, American University in Cairo, Al Gouna – Red Sea, ICARDA office in Cairo)

Number of hours: 35 including a visit to the benchmark site (to be decided later)

Learning materials

- Trainer manual
- Presentations
- Visual aids, handouts, etc…

Learning content

Day One:

- Welcome/Introductions
- Expectations of participants
- Overview of Workshop – Finalizing the Agenda

- **Session 1:** Overview of livelihoods framework and participatory approaches with a gender dimension (10:00- 11:30)
- **Session 2:** Key Issues in Gender in the WLI Research Projects/Sites (11:30 – 1:00)
- *Lunch* (1:00 -2:00)
- **Session 3:** Elements of a Gender Integrated Research Program (2:00 – 3:15)
- Coffee Break (3:15 – 3:30)
- **Session 4:** – Introduction to Gender Analysis in Research –Gender sensitive approaches (3:30 – 5:30)
- Summary of the day (5:30 – 6:00)

Day Two:

- Review of Day One (9:00-9:30)
- **Session 5** – Applications of integrating gender in the different phases of research (9:30 – 11:15)
- Coffee Break (11:15 – 11:30)
- **Session 6** – Sector-specific Gender Approaches(11:30 -1:00)
  - Subsistence crops
  - High value crops
- Lunch (1:00 – 2:00)
- **Session 6** (continued) (2.00 – 5:30)
  - Climate and Environmental Changes
  - Livestock
- Coffee break (3:15-3:30)
- Summary of the day (5:30-6:00)

Day Three:

- Review of Day Two (9:00-9:30)
- **Session 7** – Gender and Value Chains (9:30-11:15)
- Coffee break (11:15-11:30)
- **Session 8** – Gender and Water (11:30-1:00)
  - Water management
  - Irrigation management

Lunch (1:00 – 2:00)

- **Session 9:** Monitoring and Evaluation (2.00 – 5.30)
- Coffee break: (3:15-3:30)
- Summary of the day and logistics (5:30 – 6:00)

Day Four: Field Trip

Day Five:

- Reports on the visit (9:00-10:00)
- **Session 10:** Participants' Action Plans: Integrating Gender into Research and Extension at the Benchmark Sites (10:00 – 1:00)
- Coffee Break (11:15 – 11:30)

- Lunch (1:00-2:00)
- **Session 11:** Presentations of the Action Plans (2:00 – 5:00)
- Coffee break: (3:15-3:30)
- **Session 12:** Summary and Next Steps (5:00-5:30)
- Workshop closing and distribution of Certificates (5:30 – 6:00)

Recommended trainers names, specializations and short bios

Targeted audience

- Mid level researchers (3 candidates per benchmark, 2 bio-physical and 1 socio-economist, including women and men)

Funding Sources: WLI

Expected cost

- Economy round trip air ticket to/from Egypt; hotel accommodation, meals, transportation, per diem, trainers' fees, material reproductions, conference room cost, equipment rental, field visit, etc…

Annex 2: Agenda of the extension training workshop

Suggested Title: Effective Extension Approaches in Agriculture in WLI

Purpose

- To train key extension agents in the WLI benchmark sites in the latest and most appropriate extension methodologies to improve their effectiveness in working with farmers and stakeholders

Expected outputs

By the end of the course participants will be able to:

- Describe the international modern extension approaches
- Express understanding of participatory approaches
- Show awareness of new extension tools
- Prepare farmer friendly communication material
- Express how to communicate with farmers and women farmers
- Develop plans of how to build bridges with researchers and policy makers
- Develop a plan on working with farmer groups with limited resources

Expected outcomes

- Participatory approach applied in extension practices
- Friendly material developed and effectively communicated to farmers
- Better communication with farmers and women farmers
- Better communication with researchers and policy-makers
- More efficiency in working with limited resources

Duration: Two weeks in February-March 2011

Venue: ICARDA HQ, Aleppo, Syria

Number of hours: 70 hours including field work

Learning materials

- Trainer manual
- Presentations
- Visual aids, handouts, etc…

Learning content

First Week:

- Current challenges and opportunities in extension in the BM sites (1/2 day)

- International and modern extension methodologies, tools and experiences (examples of tools: videos, mobile sms, TV, Radio, reprints) (1 day)
- Appropriate methodologies and tools in extension in the BM sites (1/2 day)
- Participatory approaches (1/2 day)
- Skills needed (communication, methodologies, translating research into applications, extension material development, human resources, working with women farmers, communication skills, getting to yes, management of change, social marketing, behavioral change, answering the question "what is in it for me," team work) (2 1/2 days)

Second Week:

- Train the trainers (2 days)
- Field trip (1 day)
- Mechanisms for improving linkages with policy makers and researchers (1 day)
- Action plans (1 day)

Recommended trainers names, specializations and short bios

Targeted audience

- Mid-level extension agents with interest/experience in training
- Men and women from each site
- Required to provide a description of the interest in attending, relevance to current responsibilities and the expected learning benefits

Funding Sources: WLI

Expected cost

- Economy round trip air ticket to/from Syria; hotel accommodation, meals, transportation, per diem, trainers' fees, material reproductions, conference room cost, equipment rental, field visit, etc…

Annex 3: Agenda of the water management training workshop

Suggested Title: Improving Agricultural Water Management: Innovative Tools and Practices

Purpose

- To deliver an overview course related to agricultural water management, agricultural hydrology and water quality issues. This will be a core course leading to more advanced knowledge related to water and irrigation at farm to watershed scale.

Expected outputs

- 20-25 researchers trained in tools of on-farm hydrology and irrigation, agricultural pollutants and water quality;
- Apply knowledge gained in the formulation of possible research activities at the benchmark sites.
- Presentation of case studies; application of acquired knowledge

Expected outcomes

- Development of an integrated water resources management (IWRM) plan at the benchmark site;
- Collection of appropriate data at each benchmark site that contribute to the development of a database for WLI.

Duration: Two weeks in April-May 2011

Venue: ICARDA-HQ

Number of hours: 70 (35 hours per week), plus a field visit at the end of the first week

Learning materials

- CDs
- Presentations
- Visual aids, handouts, etc…

Suggested learning contents

First Week:

Innovative approaches to water management

- Overview of dryland agro-ecosystems
- Introduction to watersheds

- Water and the Environment
- Hydrologic cycle and water balance
- Soil water characteristics
- Crop water requirements
- Modern irrigation systems
- Hydrologic measurements
- Water quality for agricultural uses
- Agricultural pollutants
    - Sources and types of pollutants
    - Non point sources pollution
    - Aquifer vulnerability assessment
    - Water quality impairments and public health impacts
    - Best management practices in pollutant mitigation
    - Water quality measurements and analysis
- Field Day for observation and sampling

Second Week

Modeling in water management

- River basin accounting and allocation models
- Watershed modeling
- Crop modeling (point scale)
- Groundwater modeling
- Group presentation of case studies

Recommended trainers names, specializations and short bios

Prof. Jagath Kaluarachchi – USU*

Prof. Mac McKee – USU

Prof. Wynn Walker – USU

Dr. Theib Oweis – IWLMP-ICARDA

Dr. Francois Molle – IWMI/ICARDA

Dr. Qadir Manzoor – IWMI/ICARDA

Dr. Rolf Sommer – IWLMP-ICARDA

Dr. Feras Ziadat, IWLMP-ICARDA

Dr. Ahmed Al Wadaey, IWLMP-ICARDA

Dr. Fadi Karam, IWLMP-ICARDA

* USU representative comes each week to participate in training

Targeted audience

- People working within the WLI benchmark sites with a minimum of BS degree in irrigation, water engineering, hydrology, soil sciences or a similar discipline. Prior work experience in water and irrigation will be advantageous.
- Proficiency in the English is required.
- Recommended that both men and women attend.

Funding Sources: WLI

Expected cost

- Economy round trip air ticket to/from Syria; hotel accommodation, meals, transportation, per diem, trainers' fees, material reproductions, conference room cost, equipment rental, field visit, etc…

Annex 4: Program of the WLI coordination meeting for Lebanon LARI- Tal Amara, Monday 15 November 2010

Date: Monday 15 November 2010

Venue: Tal Amara Research Station, Bekaa Valley

9:0-9:10	Introduction and plan of the meeting (Eng. Randa Massaad))
9:10-9:20	The Bio-physical characterization (Dr. Ihab Jomaa & Naji Araji)
9:20-9:30	The Bio-physical characterization (Eng Sleiman Skaff & Randa Massaad)
9:30-9:40	Socio-economic characterization (Eng Hanaa Chehabeddine & Fadi Naddaf)
9:40-10:00	coffee break
10:00-10:30	Harmonizing the Feed-The-Future development indicators with the WLI socio-economic surveys
10:30-11:30	Discussion
11:30-12:00	An overview of the ICARDA-IFAD Project 'Improved Water Management For sustainable Mountain agriculture: Jordan, Lebanon and Morocco' (Dr. Theib Oweiss & Dr. Fadi Karam)
12:00-13:00	General discussion and Final recommendations
13:00-14:00	Lunch

Annex 5: List of the 17 FTF indicators retained as "higher level" indicators

Goal Level Statement	Indicators
Sustainably Reduce Global Hunger and Poverty	• Prevalence of Poverty: Percent of people living on less than $1.25/day. • Prevalence of underweight children under 5
First Level Objectives (National)	
Improved Equitable Growth in the Agriculture Sector	• Percent growth in agricultural GDP • Expenditures of rural households (proxy for income) • Gender perceptions index
Improved Nutritional Status	• Prevalence of wasted children under 5 • Prevalence of stunted children under 5 • Prevalence of underweight women
Second Level Objectives (Program)	
Improved agricultural productivity	• Gross margin per unit of land or animal of selected product (crops/animals selected varies by country)
Expanding Markets and Trade	• Percent change in value of intra-regional exports of targeted agricultural commodities as a result of USG assistance • Value of incremental sales (collected at farm/firm level) attributed to FTF implementation
Increased private investment in agriculture & nutrition-related activities	• Value of new private sector investment in the agriculture sector or food chain leveraged by FTF implementation
Increased agriculture value-chain productivity leading to greater on and off-farm jobs	• Number of jobs attributed to FTF implementation (firm level survey).
Increased resilience of vulnerable communities and households	• Change in average score on Household Hunger index
Improved access to diverse and quality foods	• Percent of children 6-23 months that received a Minimum Acceptable Diet
Improved nutrition-related behaviors	• Prevalence of exclusive breastfeeding of children under six months.
Improved utilization of maternal and child health and nutrition services	• Prevalence of maternal anemia

Annex 6: The WLI-USAID Two-Page Briefer (Prepared by Sarah Tully & Allegra Da Silva - AAAS - Diplomacy Fellows Program – USAID)

WATER & LIVELIHOODS INITIATIVE (WLI) http://www.icarda.org/wli -- an S&T partnership:

- The **WLI directly responds to the Administrator's reform agenda which places S&T as a priority area for USAID.**

- **The WLI leverages US leadership in S&T to address key global challenges, expand scientific collaboration (between the US and the Middle East), promote regional cooperation, and invest in S&T capacity in partner countries.**

- **As called for in the Presidential Study Directive, 7 on Global Development Policy, the WLI philosophy is to address the key challenge of the needs for water for food security by "*leveraging the power of research and development, capitalizing on new models for innovation, and by working with developing countries to increase their utilization of science and technology*."**

The WLI is active. After a bottom-up design phase, the WLI has begun programs in2010, including research benchmarking, training, and aligning higher education opportunities. It developed from the need to address inefficient water usage and the consequent degradation of agro-ecosystems.

The WLI is timely. It directly supports USAID food security and water priorities and complements ongoing activities in the region. This includes promoting sustainable agriculture, greater food security, regional research and development, and increasing standards of living in rural communities, which make up 76 percent of the poor in the Middle East. Because all stakeholders and USAID missions were brought into the process at the conception and development stages, a broad base of support already exists. This was displayed when 26 institutions recently wrote, expressing support for the WLI, to George Laudato, USAID Administrator's Special Assistant for the Middle East.

The WLI develops capacity. At the local level, the WLI introduces sustainable land and water management practices, as well as providing enhanced knowledge, skills, and training for stakeholders at benchmark sites. At the policy level, it will demonstrate and recommend integrated water management and land-use strategies for decision makers.

The WLI leverages US scientific leadership and promotes regional cooperation:

- 6 USAID presence countries (Egypt, Iraq, Jordan, Lebanon, West Bank, Yemen)
- National Agricultural Research and Extension Systems (NARES), organized through work at benchmark sites across three major Agro-Ecosystems:
    - (I) Irrigated (Egypt, Southern Iraq, Yemen); (II) Rainfed (Northern Iraq, Syria, Lebanon) and (III) Badia/rangeland (Jordan, Eastern slopes of the West Bank).
- 3 Centers from the CGIAR (ICARDA, IFPRI, IWMI)[1]
- 5 US University Systems (TAMU, UC-D/R, UF, UIUC, USU)[2]
- 3 regional hub universities organized to link with national universities: American University in Cairo (AUC), American University of Beirut (AUB), and University of Jordan (UJ).

The WLI capitalizes on the power of research for development:

- **Locally** : Introduce sustainable land and water management practices and livelihood strategies; enhanced knowledge, skills, and qualifications for stakeholders
- **Nationally** : Recommend integrated water management and land-use strategies
- **Internationally**: "twinning" of countries by agro-ecosystem in a difficult but geo-politically important region, allowing lessons to be readily passed among countries
- **Demonstration**: Serve as a regional pilot to group non-focus countries from the Middle East so that they can be affiliated with the Feed the Future Initiative on Food Security
- **Higher Education**: Increased exposure and opportunity for engagement of US universities in Middle East countries – a two way street of learning

The WLI is expected to result in the following:

- Increased income in rural households/villages
- New livelihoods adapted/diversified production systems adopted

[1] Consultative Group on International Agricultural Research (CGIAR): International Center for Agricultural Research in the Dry Areas (ICARDA), International Food Policy Research Center (IFPRI), International Water Management Institute (IWMI)

[2] Texas A&M University (TAMU), University of California at Davis and Riverside (UC-D/R), University of Florida (UF), University of Illinois, Urbana-Champaign (UIUC), Utah State University (USU)

- Access to clean, high quality water improved by adoption of better water management
- Natural resources managed better at community and institutional levels
- Land use intensified, decreasing pressure to move agriculture to new or fragile lands
- Improved water quality and decreased land degradation
- Improved capacity of extension and research institutions

USAID support has been essential to development of WLI activities:

- USAID initial funding support of $350,000 in FY 2008 - three planning workshops – one per agro-ecology – were held in Cairo, Aleppo, and Amman between April and May, 2009
- USAID granted $913,978 in FY 2009 and $535,000 in FY 2010 that will be used to launch regional and foundational activities while seeking Mission support in USAID presence countries
- The WLI is also seeking cooperation with key donors

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