



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



First Quarter Progress Report

January – March 2011

Acronyms

ARC: Agricultural Research Center

AUB: American University of Beirut

BPM: Bio-Physical Model

CDU: Capacity Development Unit (ICARDA)

CODIS: Communication, Documentation and Information Services (ICARDA)

FTF: Feed the Future

GCSAR: General Commission for Scientific Agricultural Research

GIS: Geographic Information System

GISU: Geographic Information System Unit (ICARDA)

ICARDA: International Center for Agricultural Research in the Dry Areas

IIP: Irrigation Improvement Project

IIIMP: Integrated Irrigation Improvement Management Project

IWMI: International Water Management Institute

LARI: Lebanese Agricultural Research Institute

MEAS: Modernizing Extension and Advisory System

MENA: Middle East and North Africa

NARS: National Agricultural Research Systems

NCARE: National Center for Agricultural Research and Extension

NWCE: Network of Water Center of Excellence

NWRC: National Water Research Center

SEPRP: Social, Economic and Policy Research Program (ICARDA)

SWAT: Soil and Water Assessment Tool

UCD: University of California – Davis, USA

UF: University of Florida, USA

UJ: University of Jordan

USAID: United States Agency for International Development

WLI: Water and Livelihoods Initiative

Table of Contents

Executive Summary	4
Activities Undertaken in the Quarter	5
Planned Activities at Benchmark Sites	5
Planned Workshops and Trainings	6
Other events/visits.....	7
Communication.....	9
Upcoming Events.....	9
Annex I: Progress Report by Activity (January – March 2011)	12
Annex II: FTF Indicators	15
Annex III: Specialized Training workshop on GIS Applications at WLI Benchmark Sites.....	20
Annex IV: Contact information for WLI Partners	23

Executive Summary

The first quarter of 2011 marked a number of important events. Some of the highlights of the period include the organization of the 2nd Regional Coordination Meeting that was attended by all WLI partnering countries¹; and representatives from U.S. and Regional Universities, USAID, IWMI, Regional Program Coordinators as well as staff members from ICARDA. The Meeting served as a forum where representatives from NARS reported on accomplishments at the benchmark sites in 2010, and made plans for 2011. The 3rd Steering Committee Meeting was also held during this time where reports on overall performance of the Initiative during 2010, projections for 2011 and other pertinent issues were discussed. In addition a ‘Communication and Public Awareness Specialist’ was hired during this time to facilitate communication among WLI partners and raise awareness of the Initiative.

The first quarter also marked the beginning of the second phase of the Initiative where the NARS moved beyond benchmark characterization and began designing questionnaires and collecting socio-economic and bio-physical data. Moreover, the NARS benefited from targeted training on ‘GIS’ and ‘Gender’ in this quarter. The training on “Integrating gender approaches into research at the WLI benchmark sites” was very timely and proved useful as the NARS embarked on designing their questionnaires and collecting socio-economic and bio-physical data. Visitors and participants from U.S. universities and USAID were also received by ICARDA and NARS during the reporting period.

¹ With the exception of participants from Egypt who were not able to attend the meeting because of political unrest in the country during that time.

Activities Undertaken in the Quarter

Planned Activities at Benchmark Sites

Implementation of planned activities for 2011 began following the 2nd Regional Coordination Meeting held in mid-February, where the NARS reported on accomplishments in 2010 and made plans for 2011. The actual implementation of activities thus began in late February (at the earliest). Nonetheless, the NARS have made good progress towards achieving set goals for the period. Common activities carried out under the socio-economic and bio-physical components include the design of questionnaires and collection of data through successive field visits. Please refer to **Annex I** for detailed descriptions of activities undertaken during the quarter as compared to targets set for the period.

Although it is not explicitly reflected in the work plans WLI partners are also aspiring to make an impact on selected Feed the Future (FTF) indicators. Please refer to **Annex II** for detailed information on selected indicators by country. As noted on the spreadsheet, the indicators are categorized as *Goal Level Statement*, *First Level Objectives*, *Second Level Objectives*, and *Improved Agricultural Productivity*. The indicators under the first two categories are retrievable from secondary data sources, while the other two will be measured through surveys. It is anticipated that the information on measurable indicators at both program and project level will be completed by September 2011. In the meantime, ICARDA will closely follow up with NARS to ensure that the surveys are being conducted on a timely manner.

Reported challenges faced by NARS during this period include overall political instability in the region (Egypt, Yemen and Palestine), lack of in-house expertise especially in the socio-economic field, and lack of full awareness of WLI's objectives at the benchmark sites (Palestine). In the case of Egypt, due to national circumstances the team was not able to participate in the Regional Workshop where the other partnering countries benefited from joint planning sessions and feedback from the plenary sessions. Egypt's work plan is expected to be finalized by mid-April and hence this team has nothing to report in this quarter. The Yemen team, while able to participate in the workshop, was not able to carry out all activities as planned because of national circumstances, which limited mobility and visits to the benchmark site. The Palestinian team addressed their problem by hiring a local consultant to complement their socio-economic team, and have made plans to conduct two workshops to raise public awareness on WLI's objectives at the benchmark sites.

The integration of gender into planned activities is the highlight of the progress made during this quarter. Following the gender training conducted by experts from the University of Florida (March 6-10, 2011), the NARS have incorporated gender in the questionnaires they designed, and the surveys they conducted - incorporating their needs in the assessment of potential income generation activities, accounting for the role of women in water and land management, and their role in the agricultural sector - particularly in cropping systems and

irrigation practices. Levels of engagement of Rural Women's Associations in water resource management were also considered by Yemen.

Planned Workshops and Trainings

GIS introductory training, 3-6 January 2011, Amman, Jordan

The training was specifically organized to give preparatory lessons on biophysical characterization of agro-ecosystems to participants from Yemen and Iraq. The two countries were selected because they were somewhat deficient in the basic qualifications required to participate in the up-coming GIS training. By the end of the training participants were equipped with the basic skills needed to undertake land suitability analyses using the ArcGIS program. Trainees were asked to collect and prepare data on biophysical characterization and to plan for further processing during the follow-up training scheduled for April 10-14, 2011.

The 2nd Regional Coordination Meeting, 13-15 February 2001, Aleppo, Syria

The second WLI Regional Workshop was organized to appraise the activities undertaken by the NARSs during 2010, to discuss the work plans for 2011 and approve proposed plans at the 3rd Steering Committee meeting. The meeting was attended by representatives from USAID, IWMI, UF, UCD, UJ, AUB, ICARDA, regional coordinators from Egypt and Jordan, as well as the WLI partner countries, with the exception of Egypt, whose representatives were not able to come due to national circumstances.

The meeting created a platform for each country to report on achievements and general progress made during the year 2010 and to plan for the year 2011. The completion of socio-economic and biophysical characterization of selected benchmark sites were the major highlights of achievements in 2010. The meeting also served as a good forum for knowledge sharing among participating NARS and for the identification of future areas of focus for capacity building.



Third WLI Steering Committee Meeting, 14 February 2011, Aleppo, Syria:

The meeting was chaired by Dr. Kamel Shideed and focused, among other things, on WLI's progress and future work plans, issues related to resource mobilization, and the need for enhancing the partnership between U.S. Universities and other stakeholders of the Initiative. The main outcomes of this meeting include the agreement to formalize the collaborative partnership of WLI with the U.S. universities (MoUs), formulate a communication strategy for the Initiative

Water and Livelihoods Initiative (WLI) Quarterly Progress Report 2011

and expedite the update of the website, identify appropriate donors for the Initiative, refine the budget proposal submitted, disburse requested funds to U.S. universities, and design and provide a standardized reporting template that meets the requirements of both ICARDA and USAID. It was also agreed to move the planned gender training from Egypt to Aleppo, Syria.

Training Workshop on ‘Integrating Gender Approaches into Research at the WLI Benchmark Sites, 6-10 March 2011, ICARDA, Aleppo, Syria:

The training was organized in an effort to ensure the integration of gender in WLI’s agricultural research activities and was attended by participants from all the WLI partnering countries (with the exception of Yemen). Women play a very important role in both the management and utilization of water in rural farming households. Women also use and experience water shortages differently than men. The recognition and inclusion of their needs, preferences and priorities is thus very important for the success of the Initiative.

The training was given by Dr. Sandra Russo, Dr. Kathleen Colverson and Ms. Jillian Jensen from the University of Florida (UF); in collaboration with Dr. Malika Martini and Mrs. Alessandra Galie from the Social, Economic and Policy Research Program (SEPRP) of ICARDA. The training covered a broad spectrum of topics that ranged from basic introduction to “gender”, to the application of gender analysis tools to collect and use data in planned activities. Trainees were challenged to look beyond the ‘closed household’ model and have a gendered perspective in conducting their research.



Khanser valley, Syria. (March 2011)

Other events/visits

Other events in the quarter mainly relate to visits from U.S. Universities and USAID which are noted below. In addition to the visits, ICARDA also broadened its MoU with UF. The expansion is aimed at promoting collaborative efforts between ICARDA, NARS, U.S. and regional and national universities. The new MoU also makes financial provisions (travel and living expense) that will allow faculty and students from U.S. universities to engage in research at the benchmark sites.

Dr. Sandra Russo and Dr. James Hill (January 21-25, 2011):

Dr. Russo and Dr. Hill visited ICARDA to meet with the WLI team and discuss the role of U.S. Universities in WLI training events, to finalize plans on the gender workshop scheduled for March 6-10 in Cairo, to make plans for an extension training course, to discuss the need for a WLI communication plan and opportunities for graduate students to conduct research at the benchmark

sites. Dr. Russo and Dr. Hill also met with ICARDA's management team and representatives from USAID (Drs. Sarah Tully and Allegra Da Silva) to discuss the overall progress made by the Initiative and fund raising strategies. The main outcomes of this visit include: the approval of the Terms of Reference for the WLI Communication and Public Awareness Specialist, and agreements reached between ICARDA and the U.S. universities concerning the budgetary implications of the Gender Training and the Extension Scoping Visit by Dr. Nicholas Madden.

Dr. Sarah Tully and Dr. Allegra Da Silva (January 24 – February 3, 2011):

Drs. Tully and da Silva visited ICARDA to meet with the WLI team, visit some of the benchmark sites (Ghab region, Syria) to become familiar with the capacity of the national programs and partners, assess the in-house capacity of ICARDA and possibilities of tapping into these resources, meet and become familiar with the U.S. university counterparts, and to prepare funding proposal strategies for the WLI. Drs. Tully and da Silva also updated ICARDA on USAID initiatives including the FTF and the Middle East and North Africa (MENA) Network of Water Centers of Excellence (NWCE). Key recommendations from their trip include the need for WLI to sufficiently tap into ICARDA's internal resources (SEPRP, GISU, CDU and CODIS), to hire full time staff (manager, socio-economic and communication specialist) to work on the WLI project, to produce a timeline of planned WLI activities for 2011 with corresponding budget requirements, and the need for ICARDA to dedicate internal resources for fundraising in 2011.

Dr. Nicolas Madden, University of California –Davis (February 16 – 19):

Dr. Madden, a soil scientist and an expert in extension visited ICARDA as a follow up to Dr. James Hill's visit in January, during which time it was agreed that a scoping visit precede the planned extension training for WLI partners. The main objective of Dr. Madden's visit was thus to assess and have a good understanding of the extension needs by evaluating current integrated water and land-use management practices, identifying linkages between benchmark sites and national extension programs, assessing information technology capabilities, and identifying possible Modernizing Extension and Advisory Services (MEAS) scoping studies in Jordan and Lebanon.

Dr. Madden visited the Orotos-Ghab rainfed benchmark site in Syria, the Orotos-Bekaa rainfed benchmark site in Lebanon and the rangeland Muhareb watershed benchmark site in Jordan. He also met with senior officials in the Ministry of Agriculture and Agricultural Research Centers in the respective countries. Key outcomes from his trip include the identification of specific training priorities for each site visited, and the scoping of available facilities and resources for future training activities.



Muhareb benchmark site, Jordan

Communication

A Communication and Public Awareness Specialist (Mrs. Bezalet Dessalegn) was hired following the January 25th meeting attended by Dr. Mahmoud Solh, Dr. Kamel Shideed, Dr. Maarten van Ginkel, Dr. Theib Oweis, Dr. Aden Aw-Hassan, Dr. Sandra Russo, Dr. James Hill, Dr. Iman Kaffass, and Dr. Fadi Karam. In line with the Terms of Reference (TOR) and in accordance to the agreement reached at the 3rd Steering Committee, a Communication Plan for WLI was submitted by Mrs. Dessalegn to the WLI project manager and coordinator.

The plan focuses on the following four sub-themes differentiated on the basis of the objective for communication and the audience targeted.

1. Routine communication: to ensure effective and efficient delivery of information to WLI partners
2. Knowledge and experience sharing : a platform for sharing information, ideas and experiences between and among NARS
3. Awareness raising: to promote WLI nationally, regionally and internationally
4. Resource mobilization: to generate materials that are specifically geared towards potential and identified donors

The website was identified as the communication tool that meets most of WLI's internal and external communication needs. Priority was thus given to developing the website. Mrs. Dessalegn is closely working with Mr. and Mrs. Stevens who are contracted by the University of Florida to upgrade the website and conduct a content analysis. The task is expected to be completed by the end of April. In the meantime, Mrs. Dessalegn is working with the CODIS team at ICARDA to make some changes to the current website by updating and uploading relevant information and making it easier to navigate. The updated website was launched on the 31st of March. Mrs. Dessalegn will continue to work on generating required/updated documents, and collaborating with the CODIS team and the Stevens as they work towards redesigning the WLI website.

Upcoming Events

Trip to Egypt: Dr. Fadi Karam (ICARDA) and Dr. Francois Molle (IWMI) will be making a four day trip to Egypt (April 4-7) to meet with representatives from the Agricultural Research Center (ARC), the National Water Research Center (NWRC), the American University in Cairo (AUC), and other WLI team members. The purpose of the trip is to discuss the accomplishments in 2010 as measured against agreed work plans for the year, and to finalize the work plans for 2011, including the possibility of having a U.S. student work at one of the benchmark sites during the summer period.

Water and Livelihoods Initiative (WLI) Quarterly Progress Report 2011

GIS Training: A one-week (April 10-14, 2011) specialized training on ‘GIS Applications in the WLI Benchmark Sites’ will be conducted at the National Center for Agricultural Research and Extension (NCARE) in Amman, Jordan. The training is a follow up to the ‘GIS Preparatory Course’ offered in Amman in January 2011 and will focus on building participants’ technical skills in GIS, particularly as it applies to conducting advanced bio-physical characterization of the benchmarks. The training will be led by Dr. Feras Ziadat from ICARDA with contributions from the National Center for Agricultural Research and Extension (NCARE) (**Annex III**).

Research opportunities at WLI benchmark sites: Potential MSc research projects in Jordan, Lebanon, and Syria were identified during the 2nd Regional Coordination Meeting through a collaborative effort involving the NARS, ICARDA, IWMI, and the U.S. universities. Research topics for Egypt were an outcome of discussions between the Egypt team (NARC, NWRC, AUC, IWMI and ICARDA). The specific research topics are expected to be identified by selected U.S. and local MSc students during the summer of 2011. Below are the potential research topics identified for Egypt, Jordan, Lebanon, and Syria.

Egypt:

Research	Goal/Objective	Contact
Water management practices in collective pressurized irrigation systems, Western Nubaria project	<ul style="list-style-type: none"> Analyse actual management practices in collective pressurized irrigation networks and their impact on efficiency and homogeneity of water application. 	Dr. Francois Molle (IWMI), Dr. Fadi Karam and Dr. Atef Swelam (ICARDA), ARC
Assessing water management practices in Irrigation Improvement Project (IIP) collective pump areas, Damanhour	<ul style="list-style-type: none"> Analyse actual management practices in irrigated areas served by collective pumps installed by the Integrated Irrigation Improvement Management (IIIMP) project: stock-taking after 10 years of experience. 	Dr. Francois Molle (IWMI), Dr. Fadi Karam (ICARDA) and Dr. Atef Swelam (NWRC)

Jordan:

Research	Goal/Objective	Contact
Use of a hydrological transport model to develop BPMs for Muhareb watershed	<ul style="list-style-type: none"> Collect data to be used in Soil Water Assessment Tool (SWAT) model Run model and develop Bio-Physical Models (BPMs) Implement BPMs 	Dr. Yasser Mohawesh (NCARE)

Water and Livelihoods Initiative (WLI) Quarterly Progress Report 2011

Lebanon:

Research	Goal/Objective	Contact
Characterization of soil, water, land and climate in Hermel and Al-Qaa sites	<ul style="list-style-type: none"> • Generate maps and databases for soil, land cover, geology, hydrology, precipitation, drainage and surface water, and topography at Hermel and Al-Qaa sites. • Correlate data with common farm practices, cropping patterns and farm income level. 	Dr. Ihab Jomaa (LARI)

Syria:

Research topic	Goal/Objective	Contact
Modalities and outcomes of the adoption of micro-irrigation in the Orontes basin	<ul style="list-style-type: none"> • Analyse the adoption of micro-irrigation at the farm level in the Orontes basin (focus on the Asharneh Plain) and its outcomes in terms of land and water use and economics against expected benefits. 	Dr. Moammar Dayoub (GCSAR) and Dr. Francois Molle (IWMI)
Groundwater farm economics and value chain constraints to irrigation diversification	<ul style="list-style-type: none"> • Document current groundwater use by farmers in the basin and relate farmers' decisions to use groundwater to production constraints such as increasing energy prices and insufficient access to diversified market channels. 	Dr. Moammar Dayoub (GCSAR) and Dr. Francois Molle (IWMI)

Annex I: Progress Report by Activity (January – March 2011)

Country	Activities	Progress made	Challenges faced
Iraq			
Socio-economic	-Conduct socio-economic study on a representative sample	Designed a gendered questionnaire which includes salinity status and source of irrigation water (surface, GW, DW, and wells)	None reported
Bio-physical	-Assessment and improvement of water productivity	Made field visits to project area to collect information on cropping systems and methods of irrigation; and designed and filled questionnaires on adoption of greenhouse in the project area.	None reported
Palestine			
Socio-economic	Design a questionnaire	Questionnaire designed and pre-tested, held a coordination meeting in Hebron University to follow up on implementation of the 2 nd phase	Had to hire a local consultant to help with questionnaire design because the WLI socio-economic team is not as strong, the team will still need help for data collection phase
Bio-physical	-Conduct suitability analysis -Develop a database (Training)	Identified required parameters for suitability analysis	The appointment of a new Director General for the NARES which slightly delayed the implementation process, political instability in the area, and lack of awareness of WLI objectives at the benchmark site- which negatively affected their responsiveness. The team has planned two workshops focusing on awareness raising in the area.
Syria			
Socio-economic	-Design a questionnaire	Designed the household questionnaire for surveys. Improvements and adaptations to the questionnaire will be made during the surveys in April 2011 after conducting a series of meetings and interviews with households in the benchmark site of Al Ghab. This will constitute a pre-step for data collection and entry that will take place in May-July 2011.	None reported
Bio-physical	-Complete bio-physical characterization for the area (filling the gaps, digitalizing maps)	An assessment of the lacking bio-physical information was conducted in this period. The objective was to complete the baseline data collected in 2010, and to prepare a set of bio-physical maps that will be used for digitization and GIS application. To do so, the WLI focal point in Syria designated one person from the bio-physical team to participate in the one-week training on 'GIS Applications' that will be organized within the umbrella of the WLI.	None reported

Annex I: Progress Report by Activity (January – March 2011) Continued...

Country	Activities	Progress made	Challenges faced
Jordan			
Socio-economic	<p>-Assess potential income generating activities for target communities in the benchmark (Mhareb, Majidieh, and Nqera)</p> <ul style="list-style-type: none"> o Conduct community meetings to identify potential income generating activities o Exchange experiences with other successful communities in the benchmark (Nqera) <p>- Integration of gender dimension in local NGO activities for women skills improvement (Design questionnaire, and meet with households in targeted communities)</p>	<p>-Conducted field visits to Muharib and Majedya sites, and met with community members and NGOs to identify potential income generating activities</p> <p>-Special attention was given to women's needs who have identified a number of income generating activities</p> <p>- An outline for MEPI Concept Paper focusing on women's empowerment and participation in civil society was prepared following Dr. Emilie K. Stander's (AAAS Science and Technology Policy Fellow, USAID) visit in March 20-24, 2011 to identify potential SAGs, women-led NGOs who could apply for the MEPI funded by the US Dep't of State.</p>	None reported
Bio-physical	<p>-Model water flow, level, run-off and sediments (SWAT model parameters/indicators)</p> <p>-Dissemination (Develop guidelines and implement demonstration trials)</p>	<p>- Data collection on rainfall, runoff, water level, and soil sediment for SWATT model</p> <p>-Replanted shrub seedlings at the experiment site.</p> <p>-Field visit with professor Geert Sterk, Utrecht University/Netherlands who helped identify a research topic: "Quantification of Wind Erosion in Relation to Land Management in the Badia of Jordan" to be undertaken by his student, ICARDA, and NCARE.</p> <p>-Had a number of visitors including: Dr. Nicholas Madden's (UC-Davis) 'scoping' visit to assess the need for extension services (Feb.20, 2011); Dr. Feras Ziadat, and Dr. Mohamed Bou Faroua's (ICARDA) general follow-up visit (March 13, 2011); Dr. Mohamed Bou Faroua's (ICARDA) visit to select new site for water harvesting technique (March 15, 2011), and Dr. Ahmed Al-Alwadaey's (ICARDA) follow-up visit (March 20, 2011).</p> <p>-Meeting in ICARDA office/Amman, all team member of NCARE, Dr. Nasri Haddad, Dr. Feras Ziadat, Dr. Mohamed Bou Faroua, Dr. Ahmed Al-Alwadaey to discuss the work plan and achievements in the quarter (14 march 2011).</p>	None reported

Annex I: Progress Report by Activity (January – March 2011) Continued...

Country	Activities	Progress made	Challenges faced
Lebanon			
Socio-economic	-Finalize questionnaire on household assets, women's involvement in farm and income generation, land ownership, farm practices and production systems, labour source, other income source, existing marketing channels and constraints facing farmers	Questionnaire is designed and ready for submission to ICARDA/Socio-economic team for comments, and will then be shared with the Syrian team. Survey on the two sites will begin in April. -Conducted two field visits to the benchmark sites to collect information on women involvement in agriculture, the cropping system in the area and methods of irrigation used	None reported
Bio-physical	- Begin to design questionnaire (Similar to the SE component) -Collect climatic data -Harmonize digitalize and map data collected -Update land cover data using remote sensing and monitoring variations in land cover over the past 10 years	- Have formed work teams (5persons/group) to conduct the survey at the benchmark sites - Have recruited a PhD student - Eng. Sarah Hamade, to work with the team at LARI	None reported
Yemen			
Socio-economic	-Initial assessment of the impact of water productivity on livelihoods -Assess the role of associations in managing agro-ecosystems (water and land degradation)	-Have selected ninety farms to monitor and collect data on water productivity -Completed data collection on Agricultural, Water Use and Rural Women's Associations in the Delta Abyan as it especially relates to their location, general activities, membership, etc.) -A questionnaire has been designed to assess the role of Associations in water resource management	Conducting field visits was difficult especially during the month of March due to political unrest in the country
Bio-physical	-Create new and update existing digital database for the area -Assess water productivity in spate irrigation and ground water use	- Eng. Abdullah Ahmed Muflahi and Sina Mahfood Ali participated in the Specialized Training Course on 'GIS Applications in the WLI Benchmark Sites' (Amman, Jordan, 3-6 January 2011) - Have begun compiling data for land-cover map -completed laboratory analysis of soil and water samples taken last year -completed the preparation of updated soil and land suitability maps based on data collected last year	Conducting field visits was difficult especially during the month of March due to political unrest in the country

Water and Livelihoods Initiative (WLI) Quarterly Progress Report 2011

Annex II: FTF Indicators

FTF Indicator by country	Data requirement	Remarks
SYRIA		
First Level Objectives (National)		
Percent growth in agricultural GDP	Retrievable	Human Development Report - UNDP
Expenditures of rural households (proxy for income)	Retrievable	National report (Ministry of Social Affairs)
Gender perceptions index	Retrievable	Human Development Report - UNDP
Second Level Objectives (Program)		
Gross margin per unit of land or animal of selected product (crops/animals selected varies by country)	Program Indicator	Survey needed (expected time Sep 2011)
Improved Agricultural Productivity (Project)		
Number of additional hectares under improved technologies or management practices as a result of USG assistance	USG Common Indicator	Survey needed (expected time Sep 2011)
Number of new technologies or management practices made available for transfer as a result of USG assistance	USG Common Indicator	Survey needed (expected time Sep 2011)
Number of farmers, processors, and others who have adopted new technologies or management practices as a result of USG assistance	USG Common Indicator	Survey needed (expected time Sep 2011)
Number of rural households benefiting directly from USG interventions	Project	Survey needed (expected time Sep 2011)
Number of new technologies or management practices under research as a result of USG assistance	Project	Survey needed (expected time Sep 2011)
Number of new technologies or management practices under field testing as a result of USG assistance	Project	Survey needed (expected time Sep 2011)
Number of institutions/organizations undertaking capacity/competency strengthening as a result of USG assistance	Project	Survey needed (expected time Sep 2011)
Number of crop reports released by Ministry of Agriculture for public consumption based on GIS mapping and analysis	Outcome	Survey needed (expected time Sep 2011)
Number of producers organizations, water users associations, trade and business associations, and community-based organizations (CBOs) receiving USG assistance	USG Common Indicator	Survey needed (expected time Sep 2011)
Number of members of producer organizations and community based organizations receiving USG assistance	Project	Survey needed (expected time Sep 2011)
Number of producers org's, water user associations, trade and business associations and community-based org's who have adopted new tech's or management practices as a result of USG assistance	USG Common Indicator	Survey needed (expected time Sep 2011)

Water and Livelihoods Initiative (WLI) Quarterly Progress Report 2011

Annex II: FTF Indicators (Continued...)

FTF Indicator by country	Data requirement	Remarks
SYRIA (Continued)		
Improved Agricultural Productivity (Project)		
Percent change in value of intra-regional exports of targeted agricultural commodities as a result of USG assistance	Program Indicator	Survey needed (expected time Sep 2011)
Value of incremental sales (collected at farm/firm level) attributed to FTF implementation	Program Indicator	Survey needed (expected time Sep 2011)
Number of hectares of farmland registered in the name of the user	USG Common Indicator	Survey needed (expected time Sep 2011)
Post harvest losses as a % of overall harvest	Project	Survey needed (expected time Sep 2011)
Kilometers of feeder roads improved or constructed	USG Common Indicator	Survey needed (expected time Sep 2011)
Value of Agricultural and Rural Loans made to MSMEs	USG Common Indicator	Survey needed (expected time Sep 2011)
Number of MSMEs receiving USG assistance to access bank loans or private equity	Project	Survey needed (expected time Sep 2011)
Number MSMEs receiving business development services from USG assisted sources	Project	Survey needed (expected time Sep 2011)
Value of new private sector investment in the agriculture sector or food chain leveraged by FTF implementation	Program Indicator	Survey needed (expected time Sep 2011)
Number of public-private partnerships formed as a result of USG assistance	Project	Survey needed (expected time Sep 2011)
Number of jobs attributed to FTF implementation	Program Indicator	
Percent of children 6-23 months that received a Minimum Acceptable Diet	Program Indicator	Survey needed (expected time Sep 2011)
Number of USG social assistance beneficiaries participating in productive safety nets	Project	Survey needed (expected time Sep 2011)
Lebanon		
Goal Level Statement		
Prevalence of Poverty: Percent of people living on less than 1.25\$/day	Retrievable	Human Development Report - UNDP
Prevalence of underweight children under 5	Retrievable	Human Development Report - UNDP
First Level Objectives (National)		
Percent growth in agricultural GDP	Retrievable	Human Development Report - UNDP
Expenditure of rural households (proxy for income)		National report (Ministry of Social Affairs)
Gender Perception Index	Retrievable	Human Development Report - UNDP
Prevalence of underweighted women	Retrievable	Human Development Report - UNDP

Water and Livelihoods Initiative (WLI) Quarterly Progress Report 2011

Annex II: FTF Indicators (Continued...)

FTF Indicator by country	Data requirement	Remarks
Lebanon (Continued)		
Second Level Objectives (Program)		
Gross margin per unit of land or animal of selected product (crops/animals selected varies by country)	Program indicator/Measurable	Survey needed (expected time Sep 2011)
Change in average score on Household Hunger Index	Program indicator/Measurable	Survey needed (expected time Sep 2011)
Improved Agricultural Productivity (Project Level)		
Number of individuals who have received USG supported short-term agricultural sector productivity or food security training	USG Indicator	Survey needed (expected time Sep 2011)
Number of additional hectares under improved technologies or management practices as a result of USG assistance	USG Indicator	Survey needed (expected time Sep 2011)
Number of farmers, processors, and others who have adopted new technologies or management practices as a result of USG assistance	USG Indicator	Survey needed (expected time Sep 2011)
Number of producers organizations, water users associations, trade and business associations, and community-based organizations (CBOs) receiving USG assistance	USG Indicator	Survey needed (expected time Sep 2011)
Number of producers org's, water user associations, trade and business associations and community-based org's who have adopted new tech's or management practices as a result of USG assistance	USG Indicator	Survey needed (expected time Sep 2011)
Iraq		
Goal Level Statement		
Prevalence of Poverty: Percent of people living on less than \$1.25/day	Retrievable	Human Development Report - UNDP
Prevalence of underweight children under 5	Retrievable	Human Development Report - UNDP
First Level Objectives (National)		
Percent growth in agricultural GDP	Retrievable	Human Development Report - UNDP
Expenditure of rural households (proxy for income)	Retrievable	Nat'l report (Ministry of Social Affairs)
Gender Perception Index	Retrievable	Human Development Report - UNDP
Second Level Objectives (Program)		
Gross margin per unit of land or animal of selected product (crops/animals selected varies by country)	Program indicator/Measurable	Survey needed (expected time Sep 2011)

Water and Livelihoods Initiative (WLI) Quarterly Progress Report 2011

Annex II: FTF Indicators (Continued...)

FTF Indicator by country	Data requirement	Remarks
Iraq (Continued)		
Improved Agricultural Productivity (Project Level)		
Number of individuals who have received USG supported short-term agricultural sector productivity or food security training	USG Common Indicator	Survey needed (expected time Sep 2011)
Number of additional hectares under improved technologies or management practices as a result of USG assistance	USG Common Indicator	Survey needed (expected time Sep 2011)
Number of farmers, processors, and others who have adopted new technologies or management practices as a result of USG assistance	USG Common Indicator	Survey needed (expected time Sep 2011)
Number of producers organizations, water users associations, trade and business associations, and community-based organizations (CBOs) receiving USG assistance	USG Common Indicator	Survey needed (expected time Sep 2011)
Number of producers org's, water user associations, trade and business associations and community-based org's who have adopted new tech's or management practices as a result of USG assistance	USG Common Indicator	Survey needed (expected time Sep 2011)
Jordan		
Goal Level Statement		
Prevalence of Poverty: Percent of people living on less than \$1.25/day	Retrievable	Human Development Report - UNDP
Second Level Objectives (Program)		
Gross margin per unit of land or animal of selected product (crops/animals selected varies by country)	Program indicator/Measurable	Survey needed (expected time Sep 2011)
Improved Agricultural Productivity (Project Level)		
Number of additional hectares under water harvesting technologies as a result of Project assistant	USG Common Indicator	Survey needed (expected time Sep 2011)
Number of farmers who have adopted water harvesting technologies	USG Common Indicator	Survey needed (expected time Sep 2011)
Number of hectares of farmland registered in the name of user	USG Common Indicator	Survey needed (expected time Sep 2011)
Number of Jobs attributed to project implementation	USG Common Indicator	Survey needed (expected time Sep 2011)
Number of income generating activities for households	USG Common Indicator	Survey needed (expected time Sep 2011)

Annex II: FTF Indicators (Continued...)

FTF Indicator by country	Data requirement	Remarks
Palestine		
First Level Objectives (National)		
Percent growth in agricultural GDP	Retrievable	Human Development Report - UNDP
Expenditure of rural households (proxy for income)	Retrievable	National report (Ministry of Social Affairs)
Prevalence of wasted children under 5 years	Retrievable	Human Development Report - UNDP
Prevalence of stunted children under 5 years	Retreivable	Human Development Report - UNDP
Second Level Objectives (Program)		
Gross margin per unit of land or animal of selected product (crops/animals selected varies by country)	Program indicator/Measurable	Survey needed (expected time Sep 2011)
Improved Agricultural Productivity (Project Level)		
Percent change in value of intra- regional exports of targeted agricultural commodities as a result of USG assistance	Program indicator	Survey needed (expected time Sep 2011)

Annex III: Specialized Training workshop on GIS Applications at WLI Benchmark Sites

Specialized Training Workshop on

‘GIS Applications in the WLI Benchmark Sites’

(NCARE, Amman, Jordan, 10-14 April, 2011)

Introduction

The Middle East Water and Livelihoods Initiative (WLI) is a USAID-funded partnership combining the resources and expertise at national, regional, and international agricultural research institutions and universities in the MENA region and the United States. Its goal is to improve the livelihoods of rural households and communities in areas where water scarcity, land degradation, water quality deterioration, food security and health problems are prevalent. Activities include the introduction of new income-generating crop and livestock strategies in the context of sustainable and appropriate production technologies, market chain development and promoting strong farmer-based organizations. WLI partner countries include Egypt, Iraq, Jordan, Lebanon, Palestine, Syria, and Yemen.

GIS techniques provide the opportunities to better characterize a benchmark site with respect to biophysical properties. This will help in improving the knowledge of the ecosystem functions, and also form a basis of formulating the appropriate production management strategies. The five-day training is a kind of ‘On-The-Job-Training’, where trainees will be asked to bring their own data from the respective sites for further processing using GIS software. Therefore, a good practical knowledge of GIS, good knowledge of the WLI goals and objectives (for each benchmark site) and data and layers that cover the benchmark site are prerequisite to assure the success of this training.

Purpose

- To assure technical preparations in GIS for the WLI resource teams for advanced bio-physical characterization of the benchmarks.

Targeted audience

- Mid-level engineers and technicians using GIS techniques. Two candidates from the bio-physical team of the WLI team in the seven participating countries with current or near-future opportunities to work with GIS in the benchmark sites are encouraged.

Expected outputs

- 12 researchers trained on GIS applications in the benchmark sites;
- Bio-physical research plans modified to integrate GIS applications at the benchmarks.

Expected outcomes

- Establish a GIS/bio-physical team to share learning between ICARDA and NCARE and other institutions with GIS applications;
- Integration of GIS/bio-physical related activities in future research of trainees and participating institutions;
- More researchers to have access to GIS learning through distributed e-learning.

Duration: One week (10-14 April, 2011)

Venue: National Center for Agricultural Research & Extension (NCARE), Amman, Jordan.

Number of hours: 35, including exercises

Learning material provided: Training manual, presentations, handouts

Course Content

Day 1

- Registration
- Workshop welcome
- Introduction to WLI project.
- Available data for each country (presentations by countries followed by discussion).
- Design of “on the job training” for each group of countries.

Day 2

- ❖ Suitability analysis for W.H technique in the Badia region of Jordan using GIS “biophysical suitability”.
 - a) Deriving slope map for the area.
 - b) Preparing field observation for analysis.
 - c) Suitability map based on slope units.
 - d) Suitability map based on field observation.
 - e) Watershed delineation.
 - f) Overlay sub watersheds with suitability maps.
- ❖ Integrating suitability maps with cadastral maps “socio-economic analysis”:
 - a) Use the ownership area as selection criteria.

Days 3 & 4

- ❖ on the job training:
 - Data analysis for each group of countries
 - Developing suitability criteria and analysis.
 - Producing suitability maps for different agro-ecosystems

Day 5

- ❖ Database management of the Badia Benchmark project
 - Presentation about “database management” of the Badia Benchmark project
 - Demonstration related to HTML hyperlink data base of the project
 - Technical presentation about HTML database development of the project.
 - Discussion how to establish similar databases for participating countries.

Funding Sources: The Middle East Water and Livelihoods Initiative (WLI)

Training team

Dr. Feras Ziadat, IWLMP/ICARDA

Eng. Safa Mazahreh, NCARE, Jordan

Eng. Lubna Al-Mahasneh, NCARE, Jordan

About ICARDA

Established in 1977, the International Center for Agricultural Research in the Dry Areas (ICARDA) is governed by an independent Board of Trustees. Based in Aleppo, Syria, it is one of 15 centers supported by the Consultative Group on International Agricultural Research (CGIAR). ICARDA serves the dry areas of the developing world for the improvement of natural resource management and the development of adapted barley, wheat, lentil, chickpea, and faba bean varieties. ICARDA's research provides global benefits of poverty alleviation through productivity improvements integrated with sustainable natural-resource management practices. ICARDA meets this challenge through research, training, and dissemination of information in partnership with the national agricultural research and development systems. The results of research are transferred through ICARDA's cooperation with national and regional research institutions, with universities and ministries of agriculture, and through the technical assistance and training that the Center provides. A range of training programs is offered extending from residential courses for groups to advanced research opportunities for individuals. These efforts are supported by seminars, publications, and specialized information services.

Annex IV: Contact information for WLI Partners

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Annex VII: Contact information for WLI partners

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Annex VII: Contact information for WLI Partners (Continued...)

Representative's name	Organization	Role in WLI	Contact information
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Annex VII: Contact Information for WLI Partners (Continued...)

Representative's name	Organization	Role in WLI	Contact information
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