

WOCAT-LADA tools for Restoring degraded lands: Sustainable Land Management Workshop report

Link: <http://www.iucn.org/about/union/secretariat/offices/rowa/?20239/WOCAT-LADA-Tools-Assessing-and-Quantifying-Land-Degradation>

Training on the use of WOCAT-LADA tools for Restoring degraded lands under the major theme of Sustainable management of the land for livelihoods of smallholder farmers and range keepers was conducted in Amman from 13-16 April 2015. The training was organized jointly by FAORNE, the Ministry of Agriculture, IUCN and ICARDA. Resource persons (trainers) were Mr. Daniel and AbdelHameid (FAO), Fida Haddad (IUCN) 3. Mr. Mounir Louhaichi (ICARDA).

The training constituted both theoretical orientations on the use of the tools and its practical application in the field for mapping land degradation and evaluating local land management practices. The project IUCN is undertaking in Jordan, to restore degraded rangelands using Hima practice was used for the practical training and learning of lessons from the project activity on the project area.

About 18 persons representing various ministries attended the training workshop. The use of WOCAT-LADA tools for evaluating and documenting land management practices and mapping land degradation was the major topic discussed. In addition to this IUCN activities for restoring degraded lands and improve livelihoods of the beneficiaries of the project was very important topic discussed. Women participation in the training was inspiring standing at 50%. They were among the trainees who performed well and showed keen interest to understand the use of the tools and their practical application. Some of them explained that they are motivated by the training and promised they will be applying it for monitoring



and evaluation the projects they are involved.



The Context

Jordan is among the countries in the NENA Region affected by severe land degradation that is impacting livelihoods of smallholder farmers and range keepers. Incomes from rangelands and smallholder farms are experiencing gradual decline. Rangelands and marginal agricultural lands are the dominant livelihood earning means in the rural setting of Jordan. Supporting the restoration, rehabilitation and reclamation of degraded lands for improving fertility of arable lands, water harvesting and reclamation of salt affected lands, respectively are among activities being targeted for enhancing the resilience of land users and livelihoods by engaging in sustainable ways of managing the resources base on which they depend on, virtually for most of their incomes..

Drought and climate change are further escalating land degradation. On the other hand, there are good land management practices at different localities, which need to be evaluated and documented for use in the dissemination of knowledge and scaling up screened best practices in other localities, where land degradation is progressing unabated.



Protected lands have shown remarkable progress in restoring the natural habitat, biodiversity, hydrology and the ecosystem functions in general. Areas restored from severe degradation are now supporting land users to earn income. Medicinal herbs and grass collected from restored lands is processed and packaged for market. Pictures on the right show how medicinal plants are collected from the field, stored and processed



FAO has conducted the piloting of LADA tools for developing indicators for land degradation at local levels and assessing land degradation globally. Simultaneously, the WOCAT International network of land specialists developed WOCAT framework for evaluating and documenting best local practices that could be used for SLM scaling up. Based on this work, LADA and WOCAT jointly developed land degradation mapping tool, and land management practices evaluation methods that could be used at local level. Similarly, IUCN, ROWA project has been undertaking research to generate knowledge for restoration of degraded rangelands. Furthermore, ICARDA has undertaken research on natural resources management of dry land agricultural systems which will be useful for most conditions in the NENA region. The purpose of this training is to combine all these experiences to develop policies and technological packages to tackle land degradation and improve ecosystem products and services needed by the local people in particular and the country in general

The training is to be followed by the evaluation and documentation of practices that will eventually lead to the screening of best practices and options for sustainable land management (SLM) upscaling. SLM is a knowledge-based procedure that helps integrate land, water, biodiversity, and environmental management (including input and output externalities) to meet rising food and fiber demands while sustaining ecosystem services and livelihoods. SLM is necessary to meet the requirements of a growing population.

Objectives of the training

Support the development of strategies and policies for scaling up sustainable land management practices in Jordan that improve livelihoods and ecosystems. It targets at generating information required for planning sound SLM program in Jordan.

Achievements

The training workshop was started by a welcoming address of Mr. Nasredin, the FAO Representative of Jordan, and followed by the Opening speech of the Under Secretary of the Ministry of Agriculture. Ms. Fida Haddad from IUCN made a keynote address

Most participants got the required skills and knowhow that will enable them apply the tools for documenting land management practices that will be used for upscaling SLM measures for reversing land degradation in the country for all land uses.

Trainees benefitted more from the practical training conducted at Ben Hashim site where Hima restoration activities are implemented by a project of IUCN through EU funding. The trainees used the questionnaires to collect information from the field, analyse it and produce reports and maps. Moreover, they were impressed with the result achieved in the project site and the experience they obtained from the achievements.

Worth to be mentioned is the lessons the trainees learned from the project. It included: the organization of the project beneficiaries, current activities and achievements in the project site, the workshop where medicinal herbs and grasses are being processed and packaged for market.

The community in Ben Hashim, Hima restoration site (IUCN project financed by EU) are able to demonstrate sustainable systems of restoring degraded rangelands to the current status where it is restored to productive lands. A good practice to be scaled up. Community members are organized by association, which manages the area that was previously degraded but now rehabilitated, with lost medicinal herbs and grasses have been restored through the Hima traditional stem.



Smallholders, who are members of the association that manages the site, are engaged in collecting, processing and packaging medicinal plants that they are planning to market it. This project is aiming at boosting incomes of the members so that they are motivated in restoring degraded lands and make it productive.



The scaling up of the Hima restoration practice will greatly contribute to the realization of the FAO SO2 and SO5 objectives of sustainably managing NR and improving livelihoods of smallholders. It will also feed to the SSA Region Initiative and the WSI. The degraded land that is stored is located in the upper slope. In addition to biodiversity conservation it helps in enriching ground water by trapping rain in the upper catchment

Farmlands downslope the restored land are benefitting from reduced erosion by wind and water. It is also evident that water recharge in the shallow aquifers at the downhill will be improved as a result of the vegetation cover improvement that in turn enhances infiltration of rainwater and reduce evaporation losses



Jordan SLM network has been established to take the responsibility of evaluating and documenting land management practices which will be used in SLM up scaling

The training

Participants were trained on the use of the technology, approach and mapping tools for generating information and knowledge.

Practical session

Information collected from the project site were used to be completed in the questionnaires and mapping exercise was conducted using information from the field



Partnership: The collaboration among the three organizations (FAO, IUCN and ICARDA) in bringing together expertise and resources allowed to successfully conducting the training, with the knowledge and skills transfer to trainees well achieved

Jordan SLM Network: Initial steps are taken to establish Jordan SLM Network that will assume responsibilities to coordinate the documentation and evaluation of practices using the WOCAT LADA tool. Institutions that will be involved in the Network are identified (list in the Annex). A consensus was reached that the Ministry of Agriculture will house the Network and assigns a Coordinator / focal Point, from those who attended the training

Planned actions to translate the training to practical application

A concept note (CN) that elaborates the network plan of activities, outputs and outcomes and will be developed jointly (May 15)

The formal establishing of the Network, the assigning of coordinator and data base managers (May 30, 2015). Tentative structure to establish the network is discussed in the workshop

The three organizations (FAO, IUCN and ICARDA) will be jointly working for finalizing the concept note and approach potential donors (June, 2015)

Submit the CN to potential donors for financing the documentation work and activities of the Jordan SLM Network (End of May). IFAD is identified to be potential donor for this project.

Technical backstopping for strengthening the Network activities (Evaluation and documentation, analysis and dissemination)

Gather information on land use; land degradation, good local practices for managing land

Establishing SLM knowledge management in the MOA

Design a plan to implement SLM principles and practices in Jordan

Outcome and impact

Information on land uses, degradation will be gathered and good local practices will be screened for scaling up

Database on land use, soils, and land degradation are established in the MOA that uses modern IT systems and tools for analyzing and generating output.

Information is analyzed for input to strategic and policy development.

Technologies and approaches that support the sustainable land management are screened and packaged to be applied through the extension program of the MOA

Primary beneficiaries

Small-scale (subsistence) producers, family farmers or landless agricultural workers, as well as fisherfolk, pastoralists, and forest-dependent people with limited access to productive means or in particularly marginal or degraded areas;

Linkages of the work with SO3 Reduce Poverty

Outcome 1

The enabling environment is improved for the rural poor towards enhanced and equitable access to productive resources, services, organizations and markets, and to ensure their effective sustainable management of resources.

Output 1.1

Governments and relevant stakeholders are supported to strengthen formal and informal rural institutions, organizations and services and facilitate peoples' empowerment to actively participate in decision making processes and contribute to the improvement of rural livelihoods and the reduction of poverty.

Synergies with other SOs***Main linkages between SO3 (by OO) and other Strategic Objectives SO core areas of work*****SO2****SO4****SO5**

OO1

Output 3.1.2. Support to the promotion and implementation of pro-poor approaches to policies and programmes which improve access to and sustainable management of natural resources

√

√

OO1

Activity: Number of countries provided with support for the design, monitoring and implementation of

√

√

approaches, policies and
interventions that
promote equitable
access to and
sustainable
management of
productive natural
resources

Annex

1. Training on the use of WOCAT-LADA tools and Restoration of degraded lands for SLM in Jordan

13 -17 April 2015

Trainers: officers from 1. FAO (Daniel, AbdelHameid, Dost) 2. IUCN (Fidda) 3. ICARDA (Mounir)

Time	Topic	Facilitation /
Day 1 13 April 2015		
8:30 – 9:00	Registration	Organizers
9:00 -9:10	Welcoming address	FAO / MOA
9:10 – 9:20	Opening speech	MOA / FAO
09:20- 09:30	Keynote address	IUCN (Fidda)
9:30 – 9:45	Introduction of participants and their expectations Introduction of the objective of the training and the use of the tools	Organizers
9:45- 10:30	Tea /coffee break (group photo)	
10:30– 12:00	Introduction to LADA-WOCAT methodology and tools Questionnaires on Technology and Approach <ul style="list-style-type: none"> Brief identification Area Information Introduction to QM mapping questionnaire Discussion	FAO
12:00-13:00	Introduction to Restoration of Degraded rangelands through the Hima System Introduction to economic valuation as a means of assessing the true benefits associated with rangeland restoration	IUCN
13:00-14:00	Lunch	
SLM Technology Assessment and Documentation		

Time	Topic	Facilitation /
14:00-15:00	Questionnaires on Technologies (QT) <ul style="list-style-type: none"> • Specifications on the SLM Technology • Analysis of the SLM Technology 	FAO (NRL, RNE)
15.00 -16.00	Biologic and agronomic measures for land management Forest and landscape restoration Mechanism as an integrated process for landscape restoration Economic valuation of the Hima system and its ecosystem services (soil carbon sequestration, groundwater infiltration, soil fertility, etc.)	IUCN
16.00 -17:00	Practicing with the questionnaires (QT)- (e.g. identify problems in obtaining reliable information and clarify questions that are not clear) Prepare discussion points with the land users/field staff (e.g. clarify which sections/ questions need land users involvement and where additional information from extension/ technical experts may be needed)	Group
Day 2, 14 April 2015		
SLM Approach Assessment and Documentation		
8:30-10:30	Questionnaires on Approaches (QA) <ul style="list-style-type: none"> • Specifications on the SLM Approach • Analysis of the SLM Approach • physical and biological land improvement • soil fertility improvement for carbon restoration 	FAO (NRL, RNE)
10:30-11:00	Break	
11:00 -12:00	Practicing with the questionnaires (QA) (e.g. identify problems in obtaining reliable information and clarify questions that are not clear) Prepare discussion with the land users /field staff (e.g. clarify which sections/ questions need land users involvement and where additional information may be needed)	Group work (resource persons provide explanation)
12:00 -13:00	Socioeconomic and gender aspects of rangelands Rehabilitation	IUCN
13:00-14:00	Lunch	
14:00 – 15:00	Practicing with more illustrations and using online survey tools on the technologies and approaches data collection, analysis and getting product of it	Group

Time	Topic	Facilitation /
16:45-17:00	Preparing for filed practical Identifying technologies and approaches Methods for approaching land users Getting the need information Methods for getting secondary information from other sources than land users	FAO & IUCN
Day 3, 15 April 2015		
Full day (with packed lunch)	Practical Training in the field (field day to Bani Hashem HIMA site) documentation of technologies and approaches in groups discussion with farmers catchment/local participatory mapping exercise familiarization with land use systems and land degradation mapping mainstreaming gender in natural resources management and practicing the landscape approach	IUCN FAO
Day 4, 16 April 2015		
8:30:00-- 10:30	Lessons learned and issues from the field day	Group
	Training on the data management tool (database) and	
	Plant production, improved farming practices and productivity in SLM Trees and shrubs in the restoration of degraded range lands	FAO
10:30- 10:45	Tea /coffee break	
11:45-13:00	Data entry technology and approach	Group (computer lab)
13:00-14:00	Lunch	
14:00-16:40	Group work	Group work (computer lab)
16: 40- 17:00	Closing of the training workshop and handing over of Certificates	Mr. Nasredin / Ms. Fidda
Day 5, 17 April 2015		
8:30- 1:00	Action plan preparation	IUCN, FAO, MOA, ICARDA

2. Opening address

(Nasredin HagElamin, FAOR Jordan)

April 13, 2015

Dear Colleagues,

Ladies and Gentlemen,

It is my pleasure to welcome you all to this training, which starts today on the 13th April – 16, 2015. It is on the use of WOCAT-LADA tools for Sustainable Land Management and restoration of degraded rangelands. FAO in collaboration with the Ministry of Agriculture and the IUCN have organised the workshop. A total of about 20 trainees will take part in this training representing various organizations in the country.

In the face of climate change and increasing threats from desertification, increasing demand for land and water triggered by increasing population, we are at a very tasking time where all efforts need to be geared to scaling up of cost effective and environmental friendly practices to reduce their impact. It is becoming more demanding to find practices that help address climate change impacts and improve land and water productivity. The technologies and approaches we have to implement should be the ones that will enable us tackle these problems. It will be therefore relevant to look for effective technologies and approaches based on assessment and evaluation of their impact for improving land and water productivity and also deal with the policy, strategy and technological gaps prevailing in the country.

To address this, the Food and Agricultural Organization Office for the Near East (FAORNE) has initiated a program for land management and tenure, to support FAO member countries in the region to scale up best land and water management practices and responsible tenure governance systems that tackle the problems of land degradation by various factors and diminishing soil fertility.

This training aims to train on use of the tool for collecting information on local land and r management practices in the country. The WOCAT-LADA knowledge management tool is found to be the most relevant method to evaluate the technologies and approaches applied in the various localities in Jordan and document them.

There are a number of local practices in the country which have to be evaluated for their impact and replicate them in other localities, countries. In addition to this, it is necessary to determine the extent and severity of land degradation to find out the best suitable interventions that help rehabilitate salt affected lands and make them productive. In view of this WOCAT-LADA tools which are tested and proved to be effective in many countries and region are selected to be applied

I strongly believe that all of you will be able to participate and contribute to the planned documentation work.

Without taking much time, I would like to thank the organizers of this workshop for being able to bring together most relevant stakeholders and partners to take part in this training. I would also like to thank the IUCN for collaboration. The resource persons will share the trainees their rich knowledge on the Use of WOCAT-LADA tools and other methods for that enhance the restoration of degraded lands

With this brief remark, I wish you all the success and declare officially that this training workshop is opened

CONCEPT NOTE

Sustainable Land Management adoption and upscaling in Jordan

1. Introduction

Degradation of cultivated lands, rangelands and forests is increasing due to prevalence of unsustainable methods of land management that include: cultivation on marginal and forest lands, overgrazing and soil nutrient mining. On top of these factors, land degradation is accelerated by wind and soil erosion, drought and climate change. On the other hand, there are a number of local practices, research based innovative technologies and approaches and technologies implemented by projects and programs that have shown promising results in tackling land degradation, restoring biodiversity and natural habitat and improving land productivity but they are limited to certain localities. Moreover, these have not been documented to be used for spreading the good practices to areas exposed to unsustainable production systems that enhance degradation, loss of biodiversity and disturbed ecosystem functions.

Large areas of croplands range/ grazing and forest lands have already been degraded or are under greater risk of degradation. Aridity, salinity, sodicity and alkalinity are increasingly affecting land uses. Water tables are over-exploited and soil fertility is reduced due to pressure of exploitation that is not supported with sustainable systems of land and water uses. Technical and policy challenges are faced in agriculture, which represents quite substantial share of the total GDP and employs the rural population is under heavy pressures. Fresh water is in decline because of low availability on one hand and lack of efficient systems of water use both for domestic as well as agricultural purposes. .

The productivity and the ecological services are gradually diminishing as more of the land resources are under increasing pressure and are degrading. Degradation of land and water resources are increasing due to overdrawn of underground water, urbanization and land fragmentation, impoverished soil fertility, inefficient irrigation management systems and lack of good practices for managing land. Watersheds that were effective in replenishing the ground water recharge are degraded and this is resulting in the drop of water table in the aquifers. The rapid deterioration of the quality of these resources is becoming an alarming concern.

Due to severe rangelands degradation livestock production is affected, and this plays negative role in the livelihoods of the rural poor who are dominantly range keepers and pastoralist. Land fragmentation and urbanization are putting heavy pressure on the already decreasing landholdings. As landholdings get smaller household's incomes are affected and with degradation on top of it will further worsen the situation. With the decreasing availability of water for irrigating smallholdings, agricultural activities face serious threats to supply for domestic agricultural production that is highly needed for its contribution towards food and nutrition security in the country.

These are contributing to decrease in the quality and quantity of food production and healthy ecosystem functions.

Rationale: Availability of information is a key tool for adoption of new technologies, policy making and taking decision of which technologies to practice and to invest it where. The WOCAT –LADA tools have proved to be effective in generating information needed for policy making and investment in SLM. They are tested to be good for evaluating, documenting and dissemination of sustainable land management practices.

The Food and Agricultural Organization, in collaboration with the Ministry of Agriculture, IUCN ROWA and ICARDA have in April 2015 trained about 16 technical officers from various ministries on the use of WOCAT-LADA tools. The training gave theoretical and practical understanding of the use of the tools for evaluating and documenting local land management practices and mapping of land degradation.

It is expected that the trainees will be involved in the evaluation of local, project demonstrated and research based technologies in Jordan. The evaluated and documented practices will be screened for wider scale application and extension in other localities. The tool is recognized as the most effective method for documentation and dissemination of SLM knowledge by many organizations and especially by the UNCCD

The project being proposed is closely linked with the IFAD financed project entitled “Mainstreaming Biodiversity in the Sylvo-pastoral and Rangeland Landscapes in the Al Sharah Agricultural Development Region of Southern Jordan”. ”.

2. Objective. Enable the adoption of sustainable land management practices on a wider scale to (a) reverse land degradation in agricultural and degraded landscapes; (b) increase agricultural / rangeland productivity and income growth; (c) protect ecosystem integrity and functions.

The objective of the proposed project is in line with the specific objective of the IFAD financed project “to mainstream biodiversity conservation in sylvo- pastoral and rangeland management activities

The project targeting at reducing land degradation in agricultural landscapes and improve the agricultural productivity of land users (farmers, rangers, forest beneficiaries). It will also reduce land degradation, leading to the protection and/or restoration of ecosystem functions and diversity in agricultural landscapes

Project beneficiaries: 1. Institutions responsible for natural resources management (ministries, agencies, civil society, research, higher education) 2. Land use planners, projects and programs, policy makers 3. Land users (farmers and nomadic herders in the country

3. Project components

The proposed project would consist of components:

1. Support and strengthen Jordan SLM network and its functions: Establish SLM knowledge management database (land use /cover, land degradation, best practices), analysis and dissemination of SLM knowledge
2. Upscaling land management practices; Evaluating and documenting local land management practices that could include (soil salinity management, soil fertility management, erosion control measures, water harvesting, soil moisture retention, agronomic and vegetative conservation measures, and restoration of degraded rangelands) ; and screen the best practices for scaling up (use of tools for screening best practices from the documented ones,
3. Develop scaling up strategies for SLM and support the generation of information needed for reviewing or formulation of policies that encourage dissemination / extension of SLM practices
4. **Key performance indicators.**

Jordan SLM network established and database of good practices developed; SLM knowledge base is strengthened and knowledge properly disseminated; Strategy for scaling up good practices is developed; and number of land users adopting SLM and using the SLM knowledge generated has increased .SLM knowledge sharing mechanism for disseminating SLM knowledge is created

Activities and output

- Technical officers are trained on WOCAT-LADA tools for generating SLM knowledge
- Information on Land uses, degradation will be gathered and good local practices will be screened for scaling up
- Good practices are evaluated and documented, screened and packaged for scaling up and maps of varying scale on land degradation and management produced
- Database on land use, soils, and land degradation are established in the MOA that uses modern IT systems and tools for analyzing and generating output
- Information is analyzed for input to strategic and policy development
- Technologies and approaches that support the sustainable land management are screened and packaged to be applied through the extension program of the MOA

5. Outcome

Area of degraded lands that are rehabilitated and restored increases with quality and quantity of biodiversity ensured to support improved income of land users (farmers, herders and pastoralists)

This is linked to the two project outcomes of IFAD financed project: 1) An enabling environment which allows rangeland and sylvo-pastoral landscape users to understand and benefit from the conservation of biodiversity; and 2) Innovative pilot measures and introduction of “Payment for Environmental Services” (PES)

6. Project Management, Implementation and Supervision

The Ministry of Agriculture will lead the coordination and management of the project activities jointly, with close support of FAO Jordan. The project would also benefit from the available expertise in the FAO Regional office for the Near East (RNE) in Cairo, IUCN ROWA and ICARDA

Short term international and national consultants will be recruited as needed for specific project tasks and activities.

A platform that brings together actors and development partners will be established and project management that will oversee and monitor the overall project performances; with Steering Committee and Technical committees to lead management and technical matters of the project respectively

7. Project Duration

The project will have two years duration.

8. Estimated Budget = 200, 000 USD; of which: Component 1: 30,000 USD; Component 2: 120,000 USD and Component 3: 50,000 USD

3. List of Participants

**Training Workshop on: "Use of WOCAT-LADA tools for sustainable land management Organized by
FAO in collaboration with IUCN 13-16 April 2015, Kempinski Hotel Amman**

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16	Mr. AbdelHamied Adam Hamid	Senior Forestry Officer	FAO RNE	Email: abdelhamied.Hamid@fao.org
17	Mr. Taher Rawajfeh	Workshop Coordinator-Casual Labour	FAO Jordan	

4. Jordan SLM Network members (institutions and individual)

No	Institution / organization	Responsibilities	Focal persons
1	MOA - Ministry of Agriculture	Coordination / and members	Mahmoud, Areej, Rana, Ma'moon, Khaled
2	MOEnv - Ministry of Environment	member	Ammar
3	MOMA – Ministry of Municipal Affairs	member	Rowieda, Salameh
4	MWI – Ministry of Water and Irrigation	member	Diana, Manal
5	NCARE – National Center for Agricultural Research and Extension	member (proposed)	TBI (to be identified)
6	RSCN – Royal Society for Conservation of Nature	member (proposed)	TBI (to be identified)
7	BF – Badia Fund	member (proposed)	TBI (to be identified)
8	RBG – Royal Botanical Garden	member (proposed)	TBI (to be identified)
9	RJGC – Royal Jordanian Geographic Center	member (proposed)	TBI (to be identified)
10	DLS – Department of Land and Survey	member (proposed)	TBI (to be identified)
11	RSS – Royal Scientific Society	member (proposed)	TBI (to be identified)
12	ASEZA – Aqaba Special Economic Zone Authority	member (proposed)	TBI (to be identified)
13	PDTRA – Petra Development Tourism Region Authority	member (proposed)	
14	IUCN – International Union for Conservation of Nature	member	Fida
15	ICARDA – International Center for Agriculture Research in Dry Areas	member	Mira, Mounir
16	FAO – Food and Agriculture Organization of the United Nations – Jordan	member	Nasredin