



***First Expert Workshop: KM:Land Initiative:  
Ensuring Impacts from SLM – Development of a Global Indicator System***

**Evaluation of Available LD Indicators and Development of a Learning Network**

28-30 August 2007  
Hotel Selfoss, Iceland

**Summary Workshop Report**

*Workshop Rapporteurs: Boshra Salem, Mary Seely, David Niemeijer*

*Report Prepared by: Caroline King, UNU-INWEH*

**Contents**

Summary .....	2
Introduction.....	3
Session I: Introduction to the Expert Workshop.....	3
Session II: Thematic Discussion on the Use of Indicators to Capture SLM Impacts .....	3
Session III: Global Indicator Short-listing and Selection .....	5
Session IV: Project Level Issues in Indicator Harmonization and Assessment of Capacity Needs .....	6
Session V: Planning for SLM Learning Network .....	8
Closing Session.....	9
Annex 1: Workshop Agenda.....	10
Annex 2: List of Workshop Participants.....	13

## Overview of the KM:Land Initiative

The KM:Land Initiative is intended to lay the foundations for a comprehensive system to track progress across the LD Focal Area and its portfolio of projects. Under this MSP, indicators to demonstrate the benefits derived from actions on sustainable land management will be developed, as a first step in this process. Further steps will include the establishment of a Learning Network to build upon the indicator work and to support the establishment of an effective monitoring system for adaptive management of interventions to combat land degradation, and the measurement of results at project and program levels.

The goal of the KM:Land Initiative is to “contribute to enhancing ecosystem integrity, stability, functions and services through GEF-supported sustainable land management activities”. The overall objective of the MK:Land programme is to “strengthen the capacity for adaptive management of SLM projects in order to enhance their effectiveness and impact on ecosystem integrity, stability, functions and services in the context of national development priorities”.

The KM:Land programme encompasses three Specific Objectives:

- *Specific Objective I:* Develop global- and local-level indicators which, *inter alia*, demonstrate global environmental benefits and related local livelihood benefits derived from actions on combating land degradation;
- *Specific Objective II:* Exchange and disseminate knowledge and practices generated through sustainable land management projects and programs through a Learning Network; and
- *Specific Objective III:* Measure results and performance of SLM projects and programs through a coordinated and/or harmonized inter-agency monitoring and evaluation approach.

## Summary of the First Expert Workshop

Sustainable Land Management Experts, Project Managers and International Agencies met at the First Expert Workshop for the Project on ‘Ensuring Impacts from SLM’ to consider efforts to improve knowledge management and to track progress across the GEF Land Degradation Focal Area and its portfolio of projects. The workshop discussions focused on the creation of a global SLM indicator system and the development of an SLM Learning Network.

A consensus was reached amongst the participating experts with regard to a set of desirable indicators for tracking progress in SLM at the global level of the GEF portfolio. These indicators would focus on the provision of ecosystem services for human well-being, addressing the following aspects of global ecosystems and SLM responses:

### ECOSYSTEM STATE

- Land cover - including forest, rangeland and others – for identification of changes  
[total system carbon – in brackets because a methodology is under development by a separate initiative]

### ECOSYSTEM SERVICES

- Land productivity per unit input (water /fertilizer) by land cover class
- Trends in water availability, quality and quantity (green and blue water)

### HUMAN WELL-BEING

- Rural income

These global-level indicators will be connected to project-level monitoring and evaluation systems, to create a harmonized system for tracking the impacts of the SLM portfolio on global land degradation (desertification and deforestation).

Workshop participants contributed recommendations for the ongoing development of the SLM indicator system and learning activities to support enhanced knowledge management.

## **Introduction**

The First Expert Workshop of the initiative on Knowledge Management (KM) for the Global Environment Facility Land Degradation (LD) Focal Area was held in Selfoss, Iceland from 28-30 August, 2007, hosted by the Icelandic Soil Conservation Service. The KM:Land Initiative is intended to lay the foundations for a comprehensive system to track progress across the LD Focal Area and its portfolio of projects. The First Expert Workshop was attended by the members of the UN Inter-Agency Working Group on KM:Land, the UNU project team, selected GEF LD Project Managers, the independent Expert Advisory Group to KM:Land, and a broad grouping of other independent experts on SLM.

## **Session I: Introduction to the Expert Workshop**

*Chair: Anna Tengberg (UNDP), Rapporteur: Boshra Salem (U. Alexandria)*

Participants were welcomed to Selfoss for the workshop by the Director of the Iceland Soil Conservation Service. Opening remarks were then presented by representatives of the participating international agencies.

An overview of the workshop objectives and the KM:Land initiative and the Medium Sized Project on Ensuring Impacts from SLM was presented by Zafar Adeel (UNU-INWEH). Full details of the project, its objectives and intended activities, outputs and outcomes are available from the project document at <http://www.inweh.unu.edu/inweh/drylands/KMLand.htm>. The objectives of the Expert Workshop were as follows:

- To initiate the work of the KM:Land Expert Advisory Group;
- To review current practices in indicator usage in the GEF LD Focal Area;
- To evaluate and select global-level SLM indicators;
- To discuss the scope and priorities for an SLM Learning Network.

Overview presentations included in this session by Andrea Kutter (GEF Sec) and Michael Stocking (GEF STAP) addressed the strategic focus of the KM:Land initiative in the relation to broader processes taking place within the GEF. During the first two days of discussions, the main focus would be the evaluation and selection of a small set of SLM indicators to be used at the global level to evaluate progress within the GEF Portfolio. The requirements for these indicators were presented by Caroline King (UNU-INWEH).

## **Session II: Thematic Discussion on the Use of Indicators to Capture SLM Impacts**

*Chair: Anna Tengberg (UNDP) and Charles Hutchinson (U. Arizona), Rapporteur: Boshra Salem (U. Alexandria)*

The first part of the session on parallel indicator work included a series of presentations on existing indicators under development and use at the global scale. The selection of indicators for the KM:Land SLM indicator system is intended to take into account the work of other ongoing initiatives involving indicators, and to avoid reinvention of the wheel through reference to parallel initiatives. A number of such initiatives are supported by the GEF, while others are independent. In addition to the parallel work on global indicators, the session also included presentations on current use of indicators at the project level in a number of ongoing SLM projects funded by the GEF.

Parallel initiatives presented during the workshop included the 2010 Biodiversity Indicators of relevance to land degradation. These were presented by Neville Ash (UNEP-WCMC), including indicators for which data is already available, such as habitat changes, agricultural productivity and inputs, protected areas and certifiably sustainably managed land. Progress on indicators for global and national land degradation assessment through GLADA, LADA and other relevant work by FAO was presented by Parviz Koohafkhan (FAO). HansPeter Liniger (CDE) presented key indicator work by WOCAT at global, national and local levels, and Jennifer Olson (MSU) presented a reflection on the local interpretation of global land use cover change indicators. TerrAfrica SIP work underway for regional SLM indicators and indices was presented by Erick Fernandes (World Bank), as well as an example of SLM monitoring from the Zambezi River Basin. The SIP indicators include household-level socioeconomic indicators, physical indicators of soil quality and landcover (NPP), percent change in SLM applications and capacity to implement SLM, as well as a composite index to capture the SLM enabling environment. The Environmental Sustainability Index was presented by Alex De Sherbinin (CIESIN), including indicators of relevance to land degradation, and their use within a global index that is used to assess the environmental performance of national governments. Other globally harmonized indicators addressing the human capacity related aspects of SLM, which are an important focus of many of the GEF projects, were the LDC SIDS indicators, presented by Hans Eschweiler (UNDP).

Presentations on the use of indicators at the project level included an overview presentation by Andrea Kutter (GEF Sec), as well as presentations by the managers of projects on Sustainable Land Management for Mitigating Land Degradation, Enhancing Agricultural Biodiversity and Reducing Poverty (SLaM), Ghana (Edwin Gyasi), Multi-Sectoral Mechanism and Incentives for Sustainable Land Management, Bhutan (Chencho Norbu), and Sustainable Management of Inland Wetlands in Southern Africa: a Livelihoods and Ecosystem Approach (Mutsa Masiyandima). Since global environmental changes often take place over a longer timeframe than that of a GEF project, and can be affected by many factors beyond the influence of a project, a number of projects had experienced difficulty in attempts to measure global environmental impacts relating to, for example, changes in soil quality and sediment loads taking place within the project duration. Instead, projects had to focus on measurable short-term indicators that could not be expected to fully capture the achievement of global environmental impacts. Project-level analyses of trends in remotely sensed data at the project level could address periods predating the project and its impacts in order to identify processes occurring, and to select project interventions on the basis of anticipated impact, but not to decisively measure the impacts finally achieved.

From the various indicator experiences presented, differing indicator needs were identified at the global and national levels, as compared to the project level. At the global level, there is a necessary shift in focus away from the traditional concentration on soil loss, to indicators that can be economically measured across a larger scale, e.g., through remote sensing and larger-scale national reporting processes. However, indicators considered to be most feasible for global assessment, such as indicators of sustainable land use (e.g., through certification systems) and changes in vegetative cover, were also found likely to present misleading pictures, if considered without reference to additional data at finer scales. For example, land use certification schemes can only increase the area of certified land, and do not necessarily ensure improvements in management. Coarse scale NDVI analyses require ground-truthing in order for correct interpretation to be assured. Furthermore, coarse scale analyses present limitations for monitoring local changes in land degradation and desertification, and global level data analyses would need to include local verification and validation. Following the selection of global level indicators during the workshop, the challenge to achieve integration with indicators for use at the project level would be considered.

The following recommendations emerged from the discussions about use of global indicators in other initiatives:

- A balance was observed to be necessary between ideal and available indicators and datasets;
- The generation and inclusion of fresh and new data was seen as necessary;

- The science of remote sensing and Rainfall Use Efficiency Analysis can be anticipated to continue to evolve and to become increasingly relevant as a tool for land degradation assessment, in combination with assessment of other ecosystem services;
- An important consideration in indicator selection is how indicators are to be used and by whom. Although the primary beneficiary identified for the SLM indicators is the GEF itself, in order to be valid and useful, the indicators must have a wider relevance to stakeholders;
- Country-level monitoring capacity was highlighted by participants as an immense resource to be taken into account, and strengthened, through positive use of data generated.

29 August 2007

### **Session III: Global Indicator Short-listing and Selection**

*Chair: Andrea Kutter (GEF Sec), Rapporteur: Mary Seely (DRFN)*

Two presentations on global indicator short-listing and selection were made by David Niemeijer (UNU-INWEH Project Team). The first presentation explored the assumptions implicit in indicator selection, through the mapping of a causal network analysis of SLM interventions and impacts. This presentation traced the relationships between drivers, pressures state and responses in land degradation processes, and their effects on the provision of ecosystem services for human well-being, in order to identify the key points at which indicators of the impacts of SLM could most effectively be measured. In a second presentation, Dr. Niemeijer presented a short-list of indicators relating to each of these elements of the SLM model. An analysis of the short-listed indicators was presented, based on a set of criteria previously agreed by the KM:Land Inter-Agency Working Group. A discussion then took place to arrive at a final selection of indicators.

#### *Indicators of Ecosystem State*

Increase in soil carbon stocks and increase in plant biomass carbon stocks were short-listed, based on current global interest in these indicators. Limitations were identified in relation to cost effectiveness and measurability (most particularly in the case of the soil carbon stocks). However, in light of ongoing global work on this issue, total carbon was identified as an important indicator to be selected.

Final selection:

- Land cover – including forest, rangeland and others – for identification of changes (-see below)  
[total system carbon – methodology for measurement under development by another initiative]

#### *Indicators of Ecosystem Services*

Indicators identified to relate directly to impacts on ecosystem services included increases in NPP, increases in Rainfall Use Efficiency, increases in availability of fresh water, increases in crop yield per unit input, increase in meat production per animal and increase in protected area/decrease in forest area loss. These indicators were considered to be measurable and cost-effective. Participants were widely supportive of the inclusion of water-related indicators, as essential to sustainable land management. While protected area-related indicators were concluded to be relatively meaningless by most participants, other land-use/cover classification systems could be of more relevance to the identification of sustainable land management. The ongoing work of WOCAT and LADA on farming systems was discussed with interest.

Final selection:

- Land productivity per unit input (water /fertilizer) by land cover class. To be measured by NPP and RUE, combined with other relevant productivity data from FAO, where available (may eventually refer to FAO farming systems, if available)
- Trends in water availability, quality and quantity (green and blue water)

#### *Indicators of Human Well-being*

A major concern for human wellbeing indicators was the time-scale at which changes are observable, and their link to other social and economic systems. Indicators related to human well-being included decrease in mortality rates consequent upon crop failures and livestock deaths, however this indicator was found to be problematic in light of many of the selection criteria, and also subject to further problems in the event of drought and flooding events. Indicators relating to decrease in number of rural households below the poverty line and increase in rural income measured up better to the selection criteria. The HDI was considered to have both considerable strengths, and also a number of key weaknesses in relation to the selection criteria.

Final selection:

- Rural income

#### *Indicators of Response*

A range of response indicators was identified in the short-list, from increase in diversity of funding sources, to increase in national budgets for environmental protection, decrease of agricultural and export subsidies and increase in environmental subsidies, and involvement of government personnel in SLM. The indicators relating to subsidies scored best against the selection criteria. During the discussion, the relevant response was considered to be the GEF funding response, requiring the necessary indicator to capture funding (including GEF and diverse sources). This was done with the realization that such an indicator would be a process-based indicator, rather than measuring impact. Other indicators proposed in relation to responses were therefore removed from the short-list.

Final selection:

- [Funding source for SLM- total, diversity, including PES]

#### *Indicators of Pressures*

Indicators relating to pressures included increases in area under sustainable land management. Although this indicator is not currently measured, it might be possible to develop a rapid assessment if a good definition of sustainable land management could be found. Other pressure indicators considered concerned decreases in extractive uses of land: decrease in wood production per hectare, decrease in meat production per hectare and decrease in crop production per hectare. These related to impacts on environmental services already considered.

Final selection:

- none

In conclusion, it was observed that a balanced mix of indicators – including remote sensing, statistics and budget-based indicators -- can be selected. After gaining some experience in using the indicators listed above, the use of composite indices may be considered as a way of providing more “rounded” indicators.

30 August 2007

### **Session IV: Project Level Issues in Indicator Harmonization and Assessment of Capacity Needs**

*Chair: Zafar Adeel (UNU-INWEH), Rapporteur: David Niemeijer (UNU-INWEH Project Team)*

During this session, small break-out groups chaired by Expert Advisory Group members discussed issues to be considered in the selection of project-level indicators for the creation of an integrated system of SLM indicators at the project- and global (portfolio) levels. This activity was undertaken in preparation for the selection of the project-level indicators, which will be undertaken by the KM:Land Expert Advisory Group at its next meeting. The groups made recommendations with regard to project-level indicator selection for various types of projects and SLM interventions. These included policy development/mainstreaming projects, capacity building projects, investment funds, and SLM demonstration projects. Each type of intervention was identified to require a range of different indicators.

Some of the indicators considered related directly to the global level impact indicators (e.g., indicators of financing/response and SLM demonstration projects), while other indicators required to be considered at the project level were more process-oriented – e.g., indicators dealing with capacity building outcomes of projects.

Challenges with regard to measurement of project level indicators concerned the timing of monitoring – whether ex-ante, mid-term and/or ex-post, and how to capture long term investments. In addition to how long monitoring would last, another important question raised by the group was to pinpoint who would monitor, and how different sources would be integrated within the indicator system. There was a suggestion that the CRIC process of the UNCCD might be considered as a source of data on land degradation and response, and possibly CBD or UNFF for deforestation. However, some concerns were raised with regard to the quality of data that has been previously obtained through such approaches.

The following recommendations were presented for the integration of the selected global level indicators with project-level options.

*- Land cover - incl. forest, rangeland and others – for identification of changes*

Land transformation is easily measurable at the project level, together with the associated changes in land cover. This indicator should be coupled with other environmental and socioeconomic indicators.

*- Land productivity per unit input (water /fertilizer) by land cover class*

This indicator is applicable at the project level.

*- Trends in water availability, quality and quantity (green and blue water)*

Stream flow alone was considered too narrow, -there is a need to add other indicators at the project level e.g., surface water, ground water level. Water quality was considered absolutely crucial, including measures of nutrient and sediment loading and salinization.

*- Rural income*

This indicator could be more accurately measured at the project level than through national level data sources. It is important at the project level also to capture the relationship between the rural income and SLM. Additional indicators suggested for the project level: food security, nutrition

*-Funding source for SLM- total, diversity, including PES*

The break-out groups differed in their assessments of the applicability of this indicator to the project level. Consideration of the catalytic effect of GEF funding at the project level was considered important. The ratio of GEF funds to co-financing should be a standardized project-level indicator. Ratios of cash-in-kind financing, private versus public and in-country versus external co-financing should also be considered.

*- [total system carbon –methodology under development by a separate initiative]*

This indicator would require data collection and analysis at the project level, both through field surveys and remote sensing. Because soil carbon is a long-term indicator, this would require measurement beyond the usual project duration of four years.

The session ended with a general discussion on the accumulated wish-list for indicators. The discussion highlighted the cost of establishing baselines and conducting data collection and analysis. The need for long-term storage and management of generated data was raised as a challenge in order to ensure that knowledge generated at the project level is not lost on project termination. GEF M&E is not conceived as a repository for data, but additional knowledge management processes may be developed. The following issues considered not to be fully addressed in the list of impact indicators above were highlighted: policy indicators, local knowledge, local institution, social cohesion and roles of men and women. These factors

should be captured in the project-level performance monitoring and evaluation, although many of them would not be meaningfully scaled up to the global level through the SLM indicator framework.

### **Session V: Planning for SLM Learning Network**

*Chair: Zafar Adeel (UNU-INWEH), Rapporteur: David Niemeijer (Niemeijer Consult)*

This session was devoted to consideration of the opportunities created through the KM:Land initiative to strengthen learning and knowledge exchange across the LD portfolio, bringing together GEF project stakeholders, independent experts and representatives of existing networks to focus on the identification of lessons learned. Caroline King (UNU-INWEH) presented the scope for a Learning Network to be developed for KM:Land. A full description of the proposed Learning is included in the project document at <http://www.inweh.unu.edu/inweh/drylands/KMLand.htm>. The First Expert workshop created the beginnings of a Learning Network by bringing together the assembled experts and GEF project managers to support the development of the SLM indicator system. Over the coming year, a series of further learning opportunities will be created through the MSP on 'Ensuring Impacts from SLM', including a second Expert Workshop to be held in mid 2008, and a global conference towards the end of the year. Other modalities for knowledge sharing also are also proposed, including web-based interactions and publications. A series of learning products will be developed to capture and disseminate best practices.

Participants were invited to consider the available priorities, scope and modalities for learning within LD Focal Area in order to contribute to the articulation of an SLM training strategy. In order to guide the development of the proposed learning activities in the LD Focal Area, a series of presentations were made on existing learning network experiences, to identify potential complementarities and linkages with ongoing initiatives, as well as potentially instructive examples of successes and failures in previous learning network experiences. Andrea Kutter (GEF Sec) presented an overview of the networks currently active in the longer established GEF Focal Areas, including Biodiversity (BD), Climate Change/Adaptation (CC) and the International Waters (IW) Focal Area. Tessa Goverse (UNEP) presented a review of the IW:Learn network and lessons learned. Anna Tengberg presented reflections from a series of learning activities in the UNDP-GEF portfolio. Other Learning Network experiences presented included the CGIAR Learning Networks, presented by Ali Nefzaoui (ICARDA), OSS/ROSELT, presented by Wafa Essahli (CENSAD), the UNCCD learning processes, presented by Dave Mouat (DRI) and Mary Seely (DRFN), and WOCAT, presented by HansPeter Liniger (CDE).

The following refinements and recommendations were proposed for an integrated Knowledge Management strategy in the LD Focal Area:

#### *KM:Land Objective:*

To establish the conditions which will support the application of knowledge management principles to support coherent strategy and direction

#### *Intended Learning Outcome:*

A framework for Knowledge Management and Capacity Building for SLM

-participants observed the need identified for learning and knowledge management to provide lessons that can be used to improve the design of new GEF projects.

#### *Proposed Outputs:*

1: Synthesis of Lessons on SLM

2: Initial Learning Network and Planning of Future Activities

-strong support was expressed for the development of substantive syntheses of lessons across projects

-participants expressed concern that the approach to Learning Network development should be used to strengthen existing networks, rather than reinvent them.

*Substantive Focus:*

Substance should contribute to the design of new projects. During GEF-4, new projects will address:

- 1: an enabling environment to place SLM in the mainstream of development policy and practice at regional, national and local levels
- 2: mutual benefits for the global environment and local livelihoods through catalyzing SLM investments for largescale impact

- participants concluded that the discussions already introduced through the indicator work on the identification of global environmental benefits from SLM projects were a useful starting point for the substantive focus of knowledge management activities. Livelihood benefits from SLM should be identified and communicated to development policy-makers in order to encourage mainstreaming and investment.

*Target Audience:*

1. GEF strategy formulation and project design: GEF Council, Agencies and country Focal Points
2. Decision-makers able to influence mainstreaming of SLM in development policy in developing countries and mobilize investment

-discussions highlighted challenges to engage decision-makers in learning processes. Successful examples identified during the workshop presentations more frequently took place at the local level within projects.

*Engagement of GEF Project Stakeholders:*

-participants identified numerous lessons produced by LD projects, and a need for incentives for project engagement in learning activities. Bringing project achievements to a wider audience of decision-makers and potential donors towards the end of project durations could provide an incentive for engagement in learning activities.

*Learning Needs Assessment:*

-participants highlighted the opportunities for project needs to drive learning. Needs for learning expressed from the project level during the workshop more often concerned needs for decision-makers to learn from projects than for additional learning by project managers themselves. Overburdening project managers with lengthy surveys of their needs, and time consuming learning activities should be avoided. Expert synthesis and review of the state of knowledge on identified substantive topics should be used to target learning activities. Policy-level learning needs can be identified from existing processes, such as the UNCCD CRIC, and should be institutionalized to ensure sustainability.

## **Closing Session**

Andrea Kutter (GEF Sec) indicated the GEFs commitment to move forward on indicators, and invited the expert workshop participants to send comments to continue to guide the KM:Land project team. Anna Tengberg (UNDP) expressed satisfaction at the progress made during the workshop on the selection of global level indicators, and looked forward to spending more time on the project level toolbox. Zafar Adeel (UNU-INWEH) thanked the Iceland Soil Conservation Service for hosting the workshop, and commended Ms Harriet Bigas (UNU-INWEH) for her hard work to ensure the smooth running of the workshop. Finally, Dr. Adeel warmly thanked all of the experts for their participation, and expressed his hope to see them at the next expert workshop for the KM:Land initiative, which is scheduled to take place in April, 2008.

## Annex 1: Workshop Agenda

28 August 2007

Chair: Anna Tengberg (UNDP), Rapporteur: Boshra Salem (U. Alexandria)

### Session I: Introduction to the Expert Workshop

- 08:30 Welcome Remarks (SCS, UNU-INWEH, GEF Sec, UNDP)  
08:45 Overview of the First Expert Workshop Objectives and Modus Operandi (Zafar Adeel, UNU-INWEH)  
09:15 Overview of the GEF LD Focal Area and Ongoing Strategic Discussions (Andrea Kutter, GEF Sec)  
09:30 Overview of Global Environmental Impacts from SLM Projects to be Captured by Indicators at the GEF Project and Portfolio Levels (Michael Stocking, GEF STAP)  
09:45 Overview of KM:Land Objectives and Ongoing Activities on Indicator Development (Caroline King, UNU-INWEH)  
10:00 *Coffee Break*

### Session II: Thematic Discussion on the Use of Indicators to Capture SLM Impacts

- 10:15 Ongoing Parallel Indicator Work: Potential inputs to KM:Land (15 minutes each)
- 2010 Biodiversity Indicators (Neville Ash, UNEP-WCMC)
  - Land Use Cover Change Indicators (Jennifer Olson, U. Michigan)
  - Relevant indicators already explored by GLADA and LADA (Parviz Koohafkan, FAO)
  - Examples from Indicators for Capacity Building and Mainstreaming in LDC/SIDS context (Hans Eschweiler, UNDP)
  - Relevant indicators already explored by SIP/TerrAfrica (Erick Fernandes, World Bank)
  - WOCAT key indicators to capture SLM impacts at local and national levels (link to LADA) (HansPeter Liniger, WOCAT)
  - Indicators from Environmental Sustainability Index Related to Land Degradation (Alex de Sherbinin, CIESIN)
- Discussion
- 12:30 *Lunch*
- 13:30 Current GEF Project-level Characterization of Desired Impacts and Indicators (15 minutes each)
- GEF Secretariat Overview (Andrea Kutter, GEF Sec)
  - Sustainable Land Management for Mitigating Land Degradation, Enhancing Agricultural Biodiversity and Reducing Poverty (SLaM), Ghana (Edwin Gyasi)
  - Multi-Sectoral Mechanism and Incentives for Sustainable Land Management, Bhutan (Chencho Norbu)
  - Development and Implementation of a Sustainable Resource Management Plan for Marsabit Mountain and its associated Watersheds, Kenya (Sam Chema)
  - Sustainable Management of Inland Wetlands in Southern Africa: a Livelihoods and Ecosystem Approach (Mutsa Masiyandima)
- 15:00 *Coffee break*
- 15:15 Discussion
- 16:00 Meeting adjourned

Dinner outing to Golden Circle, Thingvellir National Park to visit geysers and waterfall in a glacier river

29 August 2007

*Chair: Andrea Kutter (GEF Sec), Rapporteur: Caroline King (UNU-INWEH)*

**Session III: Global Indicator Short-listing and Selection**

- 09:30 Indicator Selection Criteria: Expert Advisory Group Comments (10 minutes each)  
Discussion
- 10:30 Proposed Global Level Indicator Short-List (David Niemeijer, Niemeijer Consult)  
Discussion
- 11:30 *Coffee break*
- 11:45 Causal Network Analysis Approach to Development of an Integrated System of Indicators at Global and Project Levels (David Niemeijer, Niemeijer Consult)  
Discussion
- 13:00 *Lunch*
- 14:00 Proposed Global Level Indicator Selection (Zafar Adeel, UNU-INWEH)  
Discussion  
Expert Advisory Group Comments on Strengths and Weaknesses of Indicators Selected (any remaining gaps in selection to be addressed before Dec '07 adoption of indicators) (10 Minutes Each)
- 16:00 *Coffee break*

**Session IV: Project Level Issues in Indicator Harmonization and Assessment of Capacity Needs**

- 16:15 Small break-out groups chaired by Expert Advisory Group members
- Discussions will focus on the formulation of recommendations regarding:
- Opportunities for a few indicators to be used across all projects, to connect project-level results to global environmental changes
  - Recommendations for training and guidance needs for new project managers to use harmonized indicators
  - Recommendations for appropriate methods for pilot-testing potential project-level indicators in a few selected existing projects
  - Specific challenges for retrofitting indicators to existing projects and capacity needs
  - Recommendations for design of a web-based survey on current project outcomes, indicator usage and indicator retrofitting capacity needs of existing project managers
- 17:00 Presentation of group findings by Expert Advisory Group Members
- 17:30 Discussion
- 18:00 Meeting Adjourned
- 18:30 Group Dinner

*Report on KM: Land 1<sup>st</sup> Expert Workshop – Circulation to Participating Experts*

30 August 2007

*Chair: Zafar Adeel (UNU-INWEH), Rapporteur: Caroline King (UNU-INWEH)*

**Session V: Planning for SLM Learning Network**

09:30 Overview of SLM Learning Network Development Objectives (Caroline King)

09:45 Existing Learning Networks and Experiences (15 minutes each)

- Current GEF FA Networks: IW:Learn, BiDi, Adaptation (Andrea Kutter, GEF Sec)
- IW:Learn (Tessa Goverse, UNEP)
- SLM Sub-networks (Anna Tengberg, UNDP)

11:00 *Coffee Break*

- CGIAR SLM Learning Networks (Nefzaoui Ali, ICARDA)
- OSS Experience with Multi-country Learning Networks (Wafa Esshahli, CENSAD)
- WOCAT Learning Activities (HansPeter Liniger, WOCAT)

12:00 Discussion of Learning Network Strategy: (Zafar Adeel, UNU-INWEH)

- Scope: analysis of state of knowledge on LD and ‘shopping list’ of themes and best practices that require attention (suggestions so far eg: modification of Land Capability analysis with the ecosystem services approach, landscape approach)
- Recommendations for the development of an SLM training strategy
- Modalities for interaction between network members
- Priority products to address learning needs

13:00 *Lunch*

14:00 Wrapping Up Recommendations to Global Forum to Soils Society and Global Change and UNCCD COP 8 (Zafar Adeel, UNU-INWEH)

14:30 Meeting Adjourned

15:00 Closed Working Group Meeting

**Annex 2: List of Workshop Participants**

**Dr. Zafar Adeel**  
Director, UNU-INWEH  
Email: adeelz@inweh.unu.edu

**Prof. Steven Archer**  
Professor, Rangeland and Forest Resources  
School of Natural Resources - College of Agricultural and  
Life Sciences  
The University of Arizona  
Email: sarcher@ag.arizona.edu

**Dr. Andres Arnalds**  
Assistant Director  
Soil Conservation Service of Iceland  
Email: Andres.arnalds@land.is

**Mr. Neville Ash**  
Head of Monitoring & Assessment Programme  
UNEP-WCMC  
Email: Neville.Ash@unep-wcmc.org

**Mr. Hans Eschweiler**  
Global Coordinator, Global Support Unit  
Sustainable Land Management Portfolio Project for  
LDCs/SIDS  
UNDP-GEF  
Email: hans.eschweiler@undp.org

**Mme. Wafa Essahli**  
Directrice Chargée du Développement Rural  
Communauté des Etats Sahélo-Sahariens  
Email: w.essahli@cen-sad.org

**Prof. Erick Fernandes**  
Land Management Adviser  
Agriculture & Rural Development  
World Bank  
Email: efernandes@worldbank.org

**Ms. Ilaria Firmian**  
Associate Technical Advisor  
Environment and Natural Resource Management  
Technical Advisory Division  
IFAD-GEF  
Email: i.firmian@ifad.org

**Dr. Guðrún Gísladóttir**  
Associate Professor  
University of Iceland  
Email: ggisla@raunvis.hi.is

**Ms. Tessa Goverse**  
Task Manager - Assessment and Science Projects  
Division of GEF Coordination (DGEF)  
United Nations Environment Programme  
E-mail: Tessa.Goverse@unep.org

**Prof. Edwin A Gyasi**  
Department of Geography and Resource Development,  
University of Ghana  
E-mail: edgplec@africaonline.com.gh

**Prof. Ian Hannam**  
Adjunct Associate Professor  
Australian Centre for Agriculture and Law  
The University of New England  
Email: ian.hannam@ozemail.com.au

**Prof. Charles Hutchinson**  
Professor and Director  
Office of Arid Lands Studies  
College of Agriculture and Life Sciences  
University of Arizona  
Email: chuck@ag.arizona.edu

**Ms. Caroline King**  
Project Officer, UNU-INWEH  
Email: cking@inweh.unu.edu

**Dr. Parviz Koohafkan**  
Director, Environment, Climate Change and Bioenergy  
Division  
Natural Resources Management and Environment  
Department  
FAO  
Email: Parviz.Koohafkan@fao.org

**Ms. Andrea Kutter**  
Senior Natural Resources Management Specialist  
GEF Secretariat, Global Environment Facility  
E-mail: Akutter@TheGEF.org

**Dr. Hanspeter Liniger**  
Senior Research Scientist, Programme Coordinator  
WOCAT  
Centre for Development and Environment  
Department of Geography  
University of Bern  
Email: Hanspeter.Liniger@cde.unibe.ch

**Mr. Graham von Maltitz**  
Environmentek  
CSIR Natural Resources and the Environment  
Email: gvmalt@csir.co.za

**Dr. Mutsa Masiyandima**  
International Water Management Institute (IWMI) -  
Southern Africa Office  
Email: m.masiyandima@cgiar.org

**Dr. David Mouat**  
Desert Research Institute (DRI)  
Email: David.Mouat@dri.edu

*Report on KM: Land 1<sup>st</sup> Expert Workshop – Circulation to Participating Experts*

**Ms. Sheila Mwanundu**

Senior Technical Adviser, Environment and Natural  
Resource Management  
Technical Advisory Division, IFAD-GEF  
Email: S.mwanundu@ifad.org

**Dr. Ali Nefzaoui**

Livestock and Rangeland Scientist  
General Coordinator of the FAO-CACTUSNET  
International Center for Agricultural Research in the Dry  
Areas (ICARDA)  
Email: ali.nefzaoui@icarda.org.tn / a.nefzaoui@cgiar.org

**Mr. David Niemeijer**

Niemeijer Consult  
Email: d.niemeijer@niemconsult.com

**Mr. Salvator Nimubona**

Coordonnateur du projet  
Projet de Réhabilitation agricole et de gestion durable des  
terres (PRASAB-World Bank)  
Email: coordepp@yahoo.fr

**Mr. Chenchu Norbu**

Bhutanese Project Director for the WB/GEF Sustainable  
Land Management Project  
Programme Director, National Soil Service Center,  
Ministry of Agriculture, Bhutan  
Email: nc123007@gmail.com / norbu0304@yahoo.com

**Dr. Jennifer Olson**

Visiting Assistant Professor  
Department of Geography  
Michigan State University  
International Livestock Research Institute (ILRI)  
E-mail: olsonjj@msu.edu

**Mr. Jón Geir Pétursson**

The Icelandic Forestry Association  
Email: jgp@skog.is

**Dr. Ravi Prabhu**

Coordinator, CGIAR Regional Plan for Collective Action  
in Eastern & Southern Africa  
The Alliance of the CGIAR Centers  
Email: R.Prabhu@cgiar.org

**Mr. Sveinn Runolfsson**

Director  
Soil Conservation Service of Iceland  
Email: sveinn.runolfsson@land.is

**Prof. Uriel Safriel**

Professor  
Dept. of Evolution Systematics and Ecology  
Silberman Institute of Life Sciences,  
Hebrew University of Jerusalem  
Email: uriel36@gmail.com

**Prof. Boshra Salem**

Department of Environmental Sciences  
Faculty of Science  
University of Alexandria  
Moharram Bey  
E-mail: Boshra.Salem@dr.com

**Dr. Mary Seely**

UNCCD CST GoE  
Desert Research Foundation of Namibia  
E-mail: mseely@drfn.org.na

**Mr. Alex de Sherbinin**

Senior Staff Associate for Research  
Center for International Earth Science Information Network  
Email: amd155@columbia.edu /  
adesherbinin@ciesin.columbia.edu

**Prof. Michael Stocking**

Vice-Chair, Scientific and Technical Advisory Panel, GEF  
Professor, Natural Resources Development  
School of Development Studies  
University of East Anglia  
Email: m.stocking@uea.ac.uk

**Dr. Anna Tengberg**

Regional Technical Advisor  
International Waters & Land Degradation  
Environment Finance Group  
UNDP Regional Centre in Bangkok  
Email: anna.tengberg@undp.org

**Mr. Lawrence Townley-Smith**

Agriculture Ecologist  
Agriculture and Agri-Food Canada  
Email: townleysmithl@agr.gc.ca