

WOCAT

World Overview of Conservation Approaches and Technologies

13th


International Workshop
and Steering Meeting

*Bern/ Gwatt, Switzerland
20 - 25 October 2008*

PROCEEDINGS

Progress, Methods, Outputs,
Plan of Action,
Organisation

Co-sponsored by:

 Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Agency for Development
and Cooperation SDC

 **centre for
development and
environment**

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Layout

WOCAT

WORLD OVERVIEW OF CONSERVATION APPROACHES AND TECHNOLOGIES (WOCAT)

13th

*WORKSHOP &
STEERING MEETING
PROCEEDINGS*

WOCAT Global Management
Centre for Development and Environment (CDE, Switzerland)
World Soil Information (ISRIC, The Netherlands)
Food and Agriculture Organization of the United Nations (FAO, Italy)

LIST OF COLLABORATING AND FUNDING INSTITUTIONS

ACT	African Conservation Tillage Network, Harare, Zimbabwe
ADB	Asian Development Bank, Manila, Philippines
AJZ	AJZ: Association des Jeunes de Zammour, Médenine, Tunisia
ARC-ISCW	Institute for Soil, Climate and Water of the Agricultural Research Council, Pretoria, South Africa
ASC-UPLB	Agricultural Systems Cluster, University of the Philippines, Los Baños, Philippines
ASOCON	Asia Soil Conservation Network, Jakarta, Indonesia
BSWM	Bureau of Soils and Water Management, Department of Agriculture, Quezon City, Philippines
CAMP Alatoo	Central Asia Mountain Programme, Bishkek, Kyrgyzstan
CDE	Centre for Development and Environment, University of Bern, Switzerland
CGIAR	Consultative Group on International Agricultural Research, Washington, USA
CHTDB	Chittagong Hill Tracts Development Board, Bangladesh
CIS	Centre for International Cooperation, Vrije Universiteit Amsterdam, The Netherlands
CRDA	Commissariat Régional au Développement Agricole, Médenine, Tunisia
DANIDA	Danish International Development Assistance, Copenhagen, Denmark
DESIRE	EU-project for Mitigating desertification and remediating degraded land
DEC	Dept. for Erosion Control, Faculty of Forestry, Belgrade University, Serbia & Montenegro
DoA	Department of Agriculture, Pretoria, South Africa
FAO	Food and Agriculture Organisation of the United Nations, Rome, Italy
FAO-LADA	Land Degradation Assessment in Drylands, Rome, Italy
FSWCC	Fujian Soil and Water Conservation Centre, Fuzhou, China
GEF	Global Environmental Facility
GEF OP12	GEF Operational Program 12 Gansu Project Management Office, Lanzhou City, China
GRI-HAS	Geographical Research Institute, Hungarian Academy of Sciences, Budapest, Hungary
GREAD	Group of Research, Studies and Actions for Development, Niamey, Niger
GTZ-Sustainet	Deutsche Gesellschaft für Technische Zusammenarbeit, Sustainet, Eschborn, Germany
IAEA	International Atomic Energy Agency, Joint FAO / IAEA Division, Vienna, Austria
IC-Pakistan	Intercooperation-Pakistan, Hayatabad – Peshawar, Pakistan
ICARDA	International Centre for Agricultural Research in the Dry Areas, Aleppo, Syria
ICIMOD	International Centre for Integrated Mountain Development, Kathmandu, Nepal
ICRAF	International Center for Research in Agroforestry, Nairobi, Kenya
ICRISAT	International Crops Research Institute for the Semi-Arid Tropics, Niamey, Niger
IFAD-GM	International Fund for Agricultural Development - Global Mechanism, Rome, Italy
InGeo	Institute of Geography, Ministry of Science, Almaty, Kazakhstan
INP	Institut National de Pédologie, Dakar, Senegal
INSAH	Institut du Sahel, Bamako, Mali
IRA	Institut des Régions Arides, Médenine, Tunisia
IRHA	International Rainwater Harvesting Alliance, Geneva, Switzerland
IRRI	International Rice Research Institute, Manila, Philippines
ISRIC	World Soil Information, Wageningen, The Netherlands
IWMI	International Water Management Institute, Pretoria, South Africa
KAU	Kyrgyz Agrarian University, Bishkek, Kyrgyzstan
KVL	The Royal Veterinary and Agricultural University, Denmark
LDD	Land Development Department, Ministry of Agriculture and Cooperatives, Bangkok, Thailand
LOE	Dept. of Landscape Ecology, Institute of Geography University of Göttingen, Germany
MADRPM	Ministère de l'Agriculture du Développement Rural et des Pêches Maritime, Morocco
MAFS-	Ministry of Agriculture and Food Security, Soil Conservation and Land Use Planning Unit, Dar es Salaam,
SCLUPI	Tanzania
MoA-Ethiopia	Ministry of Agriculture, Addis Abeba, Ethiopia
NCCR N-S	National Centre of Competence in Research North-South, Switzerland
OSS	Observatoire du Sahara et du Sahel, Tunis, Tunisia
PASOLAC	Programa de Agricultura Sostenible en Laderas de América Central, Managua, Nicaragua
PFI	Pakistan Forest Institute, Peshawar, Pakistan
RELMA	Regional Land Management Unit (former RSCU), SIDA, Nairobi, Kenya
SDC	Swiss Agency for Development and Cooperation, Bern, Switzerland
SOWAP	Soil and Water Protection project and its organisations, Europe
SWCB	Ministry of Agriculture, Soil & Water Conservation Branch, Nairobi, Kenya
SWCMC	Soil and Water Conservation Monitoring Center, MWR, Beijing, P.R. China
SWALIM	FAO Somalia Water and Land Information Management, Nairobi, Kenya
SYNGENTA	Environmental Safety Assessments and Contracts, Jealott's Hill International Research Centre, Berks, UK
SYNGENTA FOUNDATION	Syngenta Foundation for Sustainable Agriculture, Basel, Switzerland
TSSRI	Tajik Soil Science Research Institute, Dushanbe, Tajikistan
Tajik Academy	of Agricultural Sciences, Dushanbe, Tajikistan
UCL	Université catholique de Louvain, Agricultural Engineering Unit, Soil and Water Conservation, Louvain-la-Neuve, Belgium

UK-SMI	UK Soil Management Initiative, Mollington, UK
UNCCD	United Nations Convention to Combat Desertification, Bonn, Germany
UNEP	United Nations Environment Programme, Nairobi, Kenya
UNGN	UNESCO-GN Chair, Faculty of Human Sciences, University of Mohammed V, Rabat, Morocco
UNU-INWEH	United Nations University, International Network on Water, Environment and Health, Hamilton, Canada
WASWC	World Association of Soil and Water Conservation, Beijing, P.R. China
WDCU	Watershed Development Coordination Unit, New Delhi, India
WORLP	Western Orissa Rural Livelihood Project

LIST OF ABBREVIATIONS

AGIS	Agricultural Geo-Referenced Information system
CA	Conservation Agriculture
CC	Climate Change
CCD	See UNCCD
CHT	Chittagong Hill Tracts
COST	European Cooperation in the field of Scientific and Technical Research
DB	Database
DBMS	Database Management System
DoA	Department of Agriculture
DPSIR	Drivers-Pressure-State-Impact-Response
DSS	Decision Support System
ESAPP	Eastern and Southern Africa Partnership Programme
FAO-SNEA	FAO Subregional Office for North Africa
GLASOD	Global Assessment of Human-Induced Soil Degradation (UNEP / ISRIC)
GO	Government Organisation
HKH	Hindu Kush - Himalaya
IM	Impact Monitoring
IRHA	International Rainwater Harvesting Alliance
ISCO	International Soil Conservation Organization
IUSS	International Union of Soil Science
LADA	Land Degradation Assessment in Dryland Areas (FAO-UNEP)
MG	WOCAT Management Group
MoU	Memorandum of Understanding
NCCR	National Centre of Competence in Research (CDE, Research Partnership North - South)
NGO	Non-Governmental Organisation
NRE	Natural Resource and Environment Division of SDC
NRM	Natural Resource Management
QA	Questionnaire on Approaches
QM	Questionnaire on the WOCAT Map
QT	Questionnaire on Technologies
SLM	Sustainable Land Management
SM	Steering Meeting
SWC	Soil and Water Conservation
TF	Task force
ToR	Terms of Reference
WOCATeer	WOCAT collaborator
WOCAT-L	WOCAT mailing list
WS	Workshop
WWSM	WOCAT (annual) Workshop and Steering Meeting

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FOREWORD & INTRODUCTION

Since 1996, WOCAT has organized International Annual Workshops and Steering Committee Meetings (WWSM) with the goal (a) to bring together the main collaborating and funding institutions and the core collaborators, (b) to assess the progress and to exchange experiences, (c) to further develop the programme, (d) to plan for the future and (e) enhance WOCAT in the host country / region.

During the previous annual workshop in the Philippines in 2007, Switzerland was selected to host the 13th annual workshop. The meeting was hosted by the WOCAT secretariat from the Centre for Development and Environment (CDE), University of Bern. The workshop started with an open symposium on 'Promoting Sustainable Land Management for its local and global Impacts' which took place in Bern. This was a unique chance for WOCAT and its partners and the regional/ national initiatives to further promote WOCAT in Switzerland and among various international organizations and institutions. The regular WWSM took place from Tuesday 21 to Saturday 25 October in the hotel 'Gwatt Zentrum' in Gwatt at the Lake of Thun. More than 40 participants from 22 countries attended the workshop in response to an invitation to all main participating and funding institutions, core collaborators as well as representatives from institutions that recently joined WOCAT.

These proceedings have been prepared mainly for the core group of WOCAT collaborators and institutions in order to present the results of the 13th WWSM, held in Gwatt and Bern, Switzerland, 20 – 25 October 2008. This document is not addressed to a broad public and therefore has not been prepared for such a purpose. It is a working document for the further development of WOCAT. Thus some of the issues are presented as reported by the rapporteurs and questions arising need to be addressed until and during the next annual workshop and steering meeting. Please give us your comments in order to improve the programme and the results presented in this document.

The proceedings include:

1. Reports on treated topics
2. Summary of major discussion points;
3. Activity plans;
4. Annex: presentations.

A CD-ROM is attached to these proceedings with all major Power Point presentations and photographs. The reference to the presentation file is indicated in brackets behind the speaker's name.

WOCAT would like to thank all participants and collaborating institutions for their contribution and considerable commitment before, during and after the workshop (see attached list of participants).

EXTENDED SUMMARY

WOCAT Symposium

In the welcome speech of Martin Sommer from SDC the achievements and progress of WOCAT in the last 15 years were highly appreciated. SDC has been a reliable supporter of the cause ever since the original launch of WOCAT. A short overview of the history and development of SLM and WOCAT was given by Hans Hurni and Hanspeter Liniger. Hans Hurni emphasised the growth of WOCAT from a project/ programme to a global network and even to a global 'institution'.

In the morning sessions national and regional presentations were given by representatives from Ethiopia, Philippines, ICIMOD and Switzerland, each of them showing some special aspects of their activities and work going on in relation to mainstreaming WOCAT. ICIMOD was representing a regional WOCAT initiative, promoting WOCAT in different Himalayan countries, Ethiopia has brought the WOCAT tools into a national investment framework, in the Philippines a multi-institutional committee is coordinating the WOCAT activities and from Switzerland the development in conservation agriculture was presented.

In the afternoon global WOCAT partnerships and developments were presented. A presentation on climate change and SLM was presented in collaboration with TerrAfrica. Further the Global Environment Facility (GEF) was introduced and their efforts in SLM knowledge management. The WOCAT-LADA mapping methodology and the Decisions Support Tool developed within DESIRE in collaboration with WOCAT were also presented.

Group works were conducted on 1) Database & Decision Support, 2) Global issues, 3) Knowledge gaps and research, 4) WOCAT coordination and funding, 5) Linkages of CDE to WOCAT. One aspect revealed by the group work was that most of the participants highly appreciate the WOCAT methods and tools, however the database needs constant updating and further population.

Topic 1: Progress Reports

The main achievement at the global level

- WOCAT received a mandate from TerrAfrica to compile guidelines for best bet SLM technologies and approaches for Sub-Saharan Africa.
- Revision of the WOCAT questionnaires (QT, QA and QM) finalized and translated into Spanish and French.
- Development of new inventory tables for a first quick survey of SLM technologies and approaches.
- First version of the mapping questionnaire and online database was finished in spring 2008.
- Further integration of WOCAT in environmental and development programmes at the global level was achieved with the requests of TerrAfrica and UNCCD.

Progress reports of the national/ regional levels:

National and regional progress reports showed the high level of activities going on.

- Based on the layout of the global overview book 'where the land is greener' factsheets were published in Nepal by ICIMOD.
- In China a publication of 27 technologies and approaches in line with the WOCAT format in Chinese and in English has been finished by the end of 2008.
- In Ethiopia SLM investments will be affiliated under the Ethiopian Strategic Investment Framework (ESIF) in which WOCAT plays a major role for knowledge management.
- Mongolia has started with the documentation of technologies and approaches and has initiated a national SLM database.
- Good progress is made in the national mapping in South Africa.
- National WOCAT training and workshops were conducted in Ethiopia, Mongolia, Afghanistan, Philippines, etc.

Topic 2: Special Presentations

IC Pakistan provided a short overview of different intervention examples applied mostly in dryland areas. Their role in drylands involves identifying cost effective techniques for enhancing the productive potential. From India a special presentation was given related to climate change adaptation. The EU-DESIRE project was also introduced on the one hand in a general presentation giving an overview of the project and on the other hand by the study site Morocco addressing more the national aspect. ICARDA

presented their different SWC/ SLM activities in Syria and also possible technologies to be documented with WOCAT. The National Institute of Pedology in Senegal would like to start implementing different WOCAT tools with a special focus on the mapping methodology. Regarding research and education Jan de Graaff from the University of Wageningen NL presented their students' exchange programme, offering a good opportunity for WOCAT to provide internships for MSc- or BSc-students. A representative of the Danone Group introduced their company and their options to support WOCAT.

Topic 3: Taskforce Progress

TF-Meeting Impact Monitoring

Previous to the 13th WWSM a 3-days taskforce-meeting on 'Impact Monitoring' was held in Bern, Switzerland. The overall goal of the TF is to develop, test and approve a 'participatory impact monitoring and assessment tool'. A list of indicators based partly on the mapping methodology and other sources was developed during the meeting. A first round of testing the newly compiled list should start after the WWSM and the IM-tool should be finalized in a second TF-meeting.

Other taskforces

The TF on 'digital products' is mainly involved in the development of the new on-line database system and internet platform of WOCAT. It was announced that the on-line QA database is nearly finished and the participants were requested to test it. The mapping database is making good progress and a first version of the on-line mapping questionnaire has been finalized. WOCAT is still very active in research and education. However the synergies could be better used between the different WOCAT partners e.g. providing access to educational material, students exchange, etc. The taskforces on 'questionnaire module', 'decision support' and 'mapping' were presented in-depth within topic 4, 5 and 6.

Topic 4: Questionnaires, Modules and Inventory

A compilation of the new or revised questions in QT and QA was distributed to the participants and the major changes presented to the participants. Furthermore it was discussed how WOCAT should proceed to update the existing information in the database to the current questionnaire version and to fill in the missing information. The discussion revealed that in some countries updating activities are already going on or will be started, but nevertheless it is a very time-consuming and difficult task.

A draft version of the watershed module was presented. Within this module all technologies applied in a watershed system need to be assessed and interlinkages described. Many parts are based on QT but with additional more specific questions concerning problems, conflicts etc. in a watershed.

In a third presentation the inventory tables for SLM technologies and approaches were introduced. The inventory tables shall be used as a first quick survey of technologies and approaches in a specific area/ region. The inventory table should also be used for an assessment of those technologies/ approaches with the highest area coverage to be shown in the WOCAT world map.

Topic 5: WOCAT/ LADA Mapping

The new mapping method was developed in collaboration with FAO/ LADA. During the first presentation a more general introduction and explanation of the mapping tool was given. The WOCAT/ LADA mapping tool is now being tested in the LADA pilot countries and with MSc studies in Switzerland and Tajikistan, as well as in the DESIRE project at study site level.

South Africa gave a presentation of their achievements made so far. The mapping procedure in South Africa is based on 'Participatory Expert Assessment' (PEA) workshops. The information gathered with the mapping activities is used for the Soil Protection Strategy in RSA. The information is compiled in different excel sheets. By October 2008 about 22% of the data capturing was done in South Africa.

Another presentation was given by the LADA pilot country Senegal. The targeted outputs are maps showing the land degradation status, causes and impacts as well as the conservation status. It was mentioned that a map viewer is required to make the collected data visible.

Topic 6: Decision Support and Up-scaling SLM

DESIRE Decision Support Tool

The latest version of the DESIRE Decision Support Tool using the software "Facilitator" was presented and experience, especially on the 2nd DESIRE stakeholder workshop, including a step-wise guidance,

was shared. The main aim of the 2nd stakeholder workshop is to select promising (existing and potential) strategies for land conservation to be implemented and tested in the selected site. The methodology developed is based on embedding the WOCAT database (-> selection of options) as well as the 'Facilitator' software (-> scoring and decision support) into a 2-days stakeholder learning workshop.

Sustainet – ScalA decision support tool

Another decision support tool presented was the Sustainet approach. Sustainet (Sustainable Agriculture Information Network) is a cooperative project to combat world hunger through sustainable agriculture. It is a tool to evaluate projects and technologies and is aimed at helping donors in their decision making.

In the group work following the presentations the participants had to reflect on the process of weighing within local decision support tool of DESIRE and to make suggestions for improvements. Valuable ideas and inputs were given. Another question addressed the integration of the DSS approaches based on Sustainet ScalA into the DESIRE local DSS. It was mentioned that the two DSS methods are acting at different levels and hence a combination would be difficult.

Topic 7: WOCAT and Global Issues

A short presentation of the main aspects discussed during the symposium contained a list of relevant global issues in relation to SLM and WOCAT such as climate change, biodiversity, food crisis, poverty reduction, etc. Different options of how to react and cover global issues were mentioned. The usage of maps as evidence for land degradation and conservation with a link to research would be one. For the linkage of the global to the local level the countries should contribute case studies to the database. Furthermore the position of WOCAT in relation to climate change (CC)/ variability was discussed. It was emphasised that WOCAT is not generating climate change scenarios, but needs to be aware of the current and future climate 'hot spots' for the development of adaptation scenarios.

In the following group work the capturing of relevant data related to CC adaptation and ecosystem services was discussed. Literature review and usage of the new WOCAT questionnaires including a new section on CC were mentioned as two possible options.

Topic 8: Activity Plans for Next Year

National and regional work plans

National activity plans were presented in accordance with WOCAT's 4 dimensions of knowledge:

- 1) Knowledge about SWC / SLM: Most countries will continue with the documentation of new T's and A's.
- 2) Tool (and method) development: Translations of the revised WOCAT questionnaires is planned in various countries. Most of the regions/ countries also intend to actively participate in the development of the new WOCAT tools such as the watershed module and the impact monitoring tool.
- 3) Information sharing and networking: The promotion of the WOCAT network in their countries/ regions was emphasised by a lot of participants.
- 4) Research, training and education: Trainings are planned in almost all participating countries.

Steering Meeting

Taskforce activity plans for 2008

The following taskforces were established or continued and their activities planned: Decision Support Tool; Questionnaire (Watershed) Module; Impact Monitoring; Mapping; Digital Products; WOCAT in Research, Training and Education; Strategy and Communication (internal and external)/ Dissemination and Promotion. It was stressed that the TF members should communicate more actively during the year.

Global activity plan for 2008

- Production of TerrAfrica guidelines for best bet SLM technologies and approaches in SSA.
- Updating and population of the WOCAT database.
- Digital products development (databases, internet platform, etc.)
- Training/ backstopping workshops

Administrative and organisational issues

The next WWSM will be in Morocco. It was decided that again an opening symposium should be held on the first day of the WWSM. More emphasis should be given to the work of the different taskforces.

Host: University of Mohammed V Faculty of Human Sciences, Rabat, Morocco

When: 12 – 17 October 2009

WORKSHOP PROGRAMME

Date/time	Activity/topic	Responsibilities
Sunday 19/10	Arrival of participants; registration Check-in at hotel in Gwatt	
Monday 20/10	WOCAT SYMPOSIUM IN BERN	<i>Moderator: M. Giger, CDE</i> <i>Rapp.: R. Mekdaschi Studer</i>
07:05 – 08.00	Departure in Gwatt and travel to Bern	S. Bhuchar
08:00 – 09.00	Registration	CDE/ WOCAT secretariat
	OPENING STATEMENT	
09:00 – 09:15	Welcome Speech: Swiss Agency for Development and Cooperation	M. Sommer, SDC
09:15 – 10:00	REVIEW OF 15 YEARS OF WOCAT	
	Achievements, global issues, synergies and challenges for the future	H. Hurni, CDE H.P. Liniger, coordinator WOCAT
10:00 – 10:30	<i>Coffee break</i>	
	REGIONAL WOCAT INITIATIVES AND EXPERIENCES	
10:30 – 12:00	EthioCAT documented SLM practices for up-scaling in Ethiopia	D. Danano, Ministry of Agriculture, Addis Ababa
	Use of NepCAT Fact Sheets and future network plans	S. Bhuchar, ICIMOD, Kathmandu
	Multi-institutional partnerships in the dissemination of SLM Technologies	R. Labios, University of the Philippines Los Baños, Laguna
	No-till experiences in Switzerland	W. Sturny, Bernese Soil Protection S. Minder, Swiss farmer, cost634
12:00 – 13:30	<i>Lunch break</i>	
	GLOBAL PARTNERSHIP AND FUTURE DEVELOPMENT	
14:00 – 15:30	Mapping degradation and conservation from local green spots to widespread SLM (FAO-LADA, ISRIC, Ministry of Agriculture South Africa)	L. Lindeque, DoA, South Africa
	Climate change and SLM: aligned efforts for Sub-Saharan Africa	A. Woodfine, FAO-consultant F. Sperling, World Bank
	SLM knowledge management for monitoring impacts of investments	B. Schuster, UNU A. Kutter, GEF/UNCCD
	Decision support for effective implementation and up-scaling of SLM	G. Schwilch WOCAT/ CDE, EU-DESIRE
15:30 – 15:45	<i>Coffee break and</i> Feedback and discussions on the way forward Topic 1: Database & decision support Topic 2: Global issues Topic 3: Knowledge gaps and research Topic 4: Donor coordination	
16:30 – 17:00	Presentation of group work with discussions	
17:00 – 17:15	Closing	W. Critchley, CIS H.P. Liniger, coordinator WOCAT
17.15 – 18.30	Apéro - Drinks and informal discussions	
20:15	<i>Dinner in Gwatt Zentrum</i>	

Tuesday 21/10	OPENING	<i>Chair: S. Bhuchar Rapp.: Ch. Hauert</i>
08:00 – 09:30	Introduction -participants, expectations, approval of agenda Discussion/ reflection on the symposium - General feedback/ impressions of WWSM participants	H.P. Liniger
09:30 – 10:00	Global Management review	G. van Lynden, ISRIC S. Bunning, FAO H.P. Liniger, CDE
10:00 – 10:30	<i>Coffee break</i>	
	TOPIC 1: PROGRESS REPORTS NATIONAL/ REGIONAL	<i>Chair: S. Bunning Rapp.: Ch. Hauert</i>
10:30 – 12:30	Presentation of regional / national progress reports (10 min. each) - Nepal - India - Philippines - China (2x presentations) - Mongolia - Tajikistan - Kyrgyzstan - Serbia - South Africa	Regional and national representatives
12.30 – 14.00	<i>Lunch break</i>	
14.00 – 14.30	Presentation of regional / national progress reports (10 min. each) - Ethiopia - Nigeria - Somalia	Regional and national representatives
	TOPIC 2: SPECIAL PRESENTATIONS	<i>Chair: R. Labios Rapp.: R. Mekdaschi Studer</i>
14.30 – 16.00	Special presentations of regional / national initiatives (15 min. each) - Syria: ICARDA – plans and vision - International land & water management - Short introduction to Danone - India: Impact of SLM on climate change: experience of WORLP - DESIRE: General: WB-leader Morocco - Senegal Review and discussion of progress reports	F. M. Ziadat J. de Graaff Y. Kervinio S. Niranjana G. van Lynden A. Laouina R. Daba FALL
16.00 – 16.30	<i>Coffee break</i>	
	TOPIC 3: TASKFORCES PROGRESS REPORTS	<i>Chair: R. Labios Rapp.: R. Mekdaschi Studer</i>
16.30 – 18.00	TF Impact Monitoring (~60 min) (results TF-Meeting) Discussion	E. Baibagyshov, others
19:00	<i>Dinner in Gwatt Zentrum</i>	
Wednesday 22/10		
	CONT. SPECIAL PRESENTATIONS AND TASKFORCE PROGRESS REPORTS	<i>Chair: R. Labios Rapp.: R. Mekdaschi Studer</i>
08.00 – 08.30	Special presentations of regional / national initiatives (15 min. each) - IC-Pakistan	A. Nizami
08:30 – 09:30	TF Digital Products (new databases, internet, etc.) Discussion	W. Prante, C. Pretorius, K. Gerber
09:30 – 10:00	TF WOCAT in research, training and education Discussion	M. Zlatic

10:00 – 10:30	Coffee break	
	TOPIC 4: QUESTIONNAIRE, MODULES AND INVENTORY	<i>Chair: D. Danano Rapp.: G. Schwilch</i>
10.30 – 11.00	Questionnaire revision - New questions and changes Modules - Watershed Module - Ideas for new modules WOCAT Inventory - New inventory table - WOCAT world map	R. Mekdaschi Studer S. Bhuchar Ch. Hauert
11.00 – 12.00	Different topics for group work: - Watershed module, ideas for other modules - Inventory	
12.00 – 12.30	Feedback and discussion from group work	
12.30 – 14.00	Lunch break	
	TOPIC 5: WOCAT-LADA MAPPING	<i>Chair: W. Prante Rapp.: Ch. Hauert</i>
14:00 – 15:30	WOCAT- LADA mapping to capture degradation, conservation/ SLM impacts at national/ regional level Introduction to WOCAT/LADA mapping questionnaire Using the WOCAT/LADA Mapping Questionnaire in South Africa LADA Senegal Mapping	H.P. Liniger G. van Lynden L. Lindeque D. Ousmane
15:30 – 17:00	Group work (<i>including coffee break</i>) / training	
17:00 – 17.30	Feedback and discussion from group work	
17:45 – 21.00	<i>Fondue dinner on the Lake of Thun</i>	
Thursday 23/10		
	FIELD TRIP	
07:45 – 09.15	Departure in Gwatt and travel by coach to Melchnau	
09:15 – 13:00	First stop in Melchnau and visit Swiss farmer (S. Minder and F. Duppenhaler) - No-till in Switzerland - Introduction of Mapping Methodology, MSc-Theses of two Swiss students - Field visits with practical training	
13.31 – 15.00	Lunch in Affoltern	
15.00 – 16.30	Conducted tour in a Swiss cheese dairy Visit Swiss farmer in Burgdorf (H. + N. Hauert)	
21:15	<i>Dinner in Gwatt Zentrum</i>	
Friday 24/10		
	TOPIC 6: DECISION SUPPORT AND UP-SCALING SLM	<i>Chair: L. Lindeque Rapp.: I. Providoli</i>
08.00 – 09.30	WOCAT – DESIRE Decision Support Tool - reflection on presentation and discussion from symposium - Use of WOCAT database for Decision Support (local and regional level) - Experiences within the DESIRE-project Sustainet – ScalA decision support tool Knowledge management and strategies for scaling up documented	G. Schwilch A.Schöning, GTZ D. Danano, MOARD; Ethiopia

	SLM practices in Ethiopia	
09.30 – 11.00	Group work <i>(including coffee break)</i>	
11.00 – 11.30	Feedback and discussion from group work	
	TOPIC 7: WOCAT AND GLOBAL ISSUES	<i>Chair: S. Bhuchar Rapp.: I. Providoli</i>
11.30 – 12.30	Global issues: - Reflections on discussion from symposium - What can WOCAT offer ?? Collaboration with projects / programmes – chances and challenges Discussion	H.P. Liniger R. Mekdaschi Studer H.P. Liniger
12.30 – 14.00	<i>Lunch break</i>	
	TOPIC 8: ACTIVITY PLANS FOR NEXT YEAR(S)	<i>Chair: G. van Lynden Rapp.: R. Mekdaschi Studer</i>
14:00 – 16:30	Organisation of taskforces and taskforce activity plans Finalizing national/regional work plans: indicate what will be done with own means (a), for what additional support is needed from country/region (b) and from global WOCAT(c) - Use and popularization of WOCAT database: up-dating to new issues - Considering the results of the Workshop (adjust!) - Concrete steps to achieve the suggested results from the workshop topics (eg revised tools, outputs, use of WOCAT, etc.) - List requests / expectations towards regional / global WOCAT <i>(including coffee break)</i>	
17:00 – 18:00	Presentation of taskforce activity plans	
19:00	<i>Dinner in Gwatt Zentrum</i>	
Saturday 25/10	STEERING MEETING	<i>Chair: H.P. Liniger Rapp.: G. Schwilch</i>
08:00 – 10:00	Short presentation of national/ regional work plans Global activities for next year - planning and major priorities - major events and conferences - planning of publications - funding needs and opportunities - compilation of materials / contributions to workshop proceedings - New partnerships and alliances: UNCCD, TerrAfrica, GEF,	Regional and national representatives H.P. Liniger
09:10 – 09:30	WOCAT Strategy	G. Schwilch
08:00 – 10:00	Donor contribution - Reflection on results from symposium Expectations/ request on WOCAT	M. Bürli H.P. Liniger
10:00 – 10:30	<i>Coffee break</i>	
10:30 – 11:00	Organisational and administrative issues: election of Global Management, assignment of Secretariat Next WWSM 2009 – in which form??	H.P. Liniger
11:00 – 12:00	Feedback from participants (against expectations)	
12:00 – 12:30	A.O.B.	
12:30 – 12:45	Closing	
12:45 – 14:00	<i>Lunch break</i>	

WOCAT SYMPOSIUM

Promoting Sustainable Land Management for its Local and Global Impacts

Moderator: Markus Giger; Rapporteur: Rima Mekdaschi Studer, Christine Hauert

Editor symposium proceedings: Will Critchley

Special proceedings of the WOCAT symposium are available on the [WOCAT-website](#).

Foreword

The WOCAT Symposium was held on the first day of the 13th WWSM in Switzerland. The aim of the symposium was to reflect on achievements, and to align current and future efforts for enhancing and promoting the simultaneously positive local and global impacts of SLM. The symposium brought together various partners and donors of WOCAT, and those interested in SLM and natural resource management. International development and agricultural professionals and institutions, as well as the public participated in the event. As the symposium took place on the first day of the WWSM, it was offering an exceptional chance to meet and exchange experiences and visions.

WOCAT would like to thank all the speakers for their presentations and also the participants and partner institutions for their interest and active contributions in the symposium.

For more information and photos of the symposium refer to <http://www.wocat.org/symp.asp>

Opening Statement

Martin Sommer, Swiss Agency for Development and Cooperation (SDC)

It is my privilege and great pleasure to welcome you here in Bern to this Symposium which simultaneously constitutes the launch of the 13th WOCAT Annual Workshop and Steering Meeting (WWSM). This is a wonderful opportunity to learn about the good - and also the more problematic - practices of natural resources management, to share innovative ideas and to jointly assess the progress of the international network.

At an ever faster rhythm and at a more global scale, major issues are chasing each other. It seems as if the world is approaching rock-bottom. But looking at it more closely, most of the current, and topical, global issues have one thing in common. They have their roots in an unsustainable and often irresponsible use of the natural resources.

And WOCAT is right there, in the middle of these issues and concerns. Everybody is searching for enhanced sustainability and more efficiency in resource management. I can say, with a touch of pride, that SDC has been a reliable supporter of the cause ever since the original launch of WOCAT. Whoever is concerned with sustainable agriculture simply cannot manage without referring to the outstanding database on SLM provided through WOCAT.

But without you - the WOCAT-participants gathered here today - this precious knowledge would never have been made available to a broader constituency. The value addition of WOCAT is to have facilitated access to such precious knowledge and to have related this to agro-ecosystem properties, to socio-economic impacts and to related risks. Unlike many other databases of this kind, WOCAT is not satisfied with merely descriptive products, but it further provides pointers for decision makers and for extension workers to enable realistic assessment of the scaling up potential of a wide range of approaches and technologies.

SDC, as the initial supporter, has consistently encouraged WOCAT to diversify its funding basis and further enhance the financial sustainability of the network. Through persistent participation in the relevant processes, WOCAT has drawn the attention of eminent global organisations, including FAO, UNEP and the World Bank, but also the secretariats of global environmental conventions, notably the UNCCD, and furthermore that of important private sector partners such as the Syngenta Foundation, and finally other bilateral donors such as DANIDA. SDC stays committed to supporting these institutional diversification efforts for the years to come.

On a more personal, though professional, note, I can assure you that I intend to continue considering the WOCAT tools and approaches as a key reference wherever appropriate, and to encourage local partners in the respective countries to associate themselves with the network.

Review of 15 years WOCAT - Achievements, global issues, synergies and challenges for the future

Sustainable land management in response to global challenges

Hans Hurni, CDE

Global Disparities: Sustainable land management (SLM) is a response to the global challenge of land degradation, from arid to humid environments. There exist immense global disparities between and within wealthy and poor states, and we have to deal with them appropriately. This applies equally to the design and implementation of SLM. The number of poverty-stricken people world-wide is still increasing. There are about 900 million poor people globally, amongst whom 70% (about 600 million) live in rural areas. Food security and the production of agro-fuels are currently competing strongly for the land and its resources – and this struggle is all the more important given that the world stock of cereals would suffice only for 1-2 months. About 40% of the world population are small-scale farmers (2.6 billion), occupying about 40% of all cultivated land. Approximately 40% of all farmers are poor; that is surviving on less than US\$ 1.0 per day. For comparison, in the current financial crisis, the Swiss Bank UBS lost about US\$ 100 billion so far – enough to pay for one year of international world aid.

Sustainable Land Management: SLM is crucial for sustainable development, not only for controlling land degradation and desertification, but also for managing water resources and biodiversity. Furthermore SLM brings with it many new opportunities for adaptation to, and mitigating of, climate change. Finally, it leads to improved food production and provides other agricultural and ecological services not only to the farmers, but to all humankind.

World Overview of Conservation Approaches and Technologies: WOCAT was designed in 1992 for furthering SLM knowledge. Since then, it has evolved from a simple project idea to a global network and institution. In 1997, the project became an international programme, and a few years later it changed into a global network and became the institutional network as we know it today. In the near future, WOCAT may grow further from an institution to an international standard for SLM in agriculture. My vision is, that by 2017, WOCAT will be known world-wide and institutionalized at national levels. A final hope is that by 2022 WOCAT will be visible through improved SLM practices on all farms throughout the world.

WOCAT and the way forward

Hanspeter Liniger, Coordinator WOCAT, CDE (WOCAT-Intro_Liniger.ppt)

WOCAT's vision is that land and livelihoods can be improved through sharing and enhancing knowledge about sustainable land management. Thus the focus has been on achievements rather than degradation. In the last 15 years four dimensions of knowledge have been developed: SLM know-how; tools and methods; information sharing and networking; research, training and education. These are described in brief, below:

SLM know-how: the book, "where the land is greener" published in 2007 was a major breakthrough with respect to the acceptance of WOCAT, and in raising WOCAT's profile. The book comprises standardised presentations of case studies on technologies and approaches, as well as an analysis and policy implications. This book is being used as used as a prototype for regional and national compilations of SLM technologies and approaches in several countries, including Nepal (see presentation on 'Use of NepCAT Fact Sheets and future network plans'), Ethiopia, Bangladesh, and China. Thus many more books (and fact-sheet compilations) are under preparation.

Tools and methods: Over the last 15 years the programme has developed a well-accepted framework for documentation, monitoring, evaluation and dissemination of SLM knowledge, covering all steps from data collection, to a database and to using the information for decision support (see presentation on 'Decision support for effective implementation and up-scaling of SLM'). All network partners have been involved in formulating the needs, and in testing and developing these tools. While the methodology for the case studies has been accepted for several years, the mapping of degradation and conservation has only recently taken-off – thanks to the support of, and collaboration with, the FAO-LADA programme (see presentation on 'Mapping degradation and conservation: from local green spots to widespread SLM'). The idea behind the mapping exercise is to capture land use, degradation and conservation, and to spatially assess the impact on ecosystem services, including agricultural production, organic matter, and water availability. This information is intended to support decision making at the local, regional and national levels to indicate where land degradation needs to be addressed, and which SLM technologies should be spread.

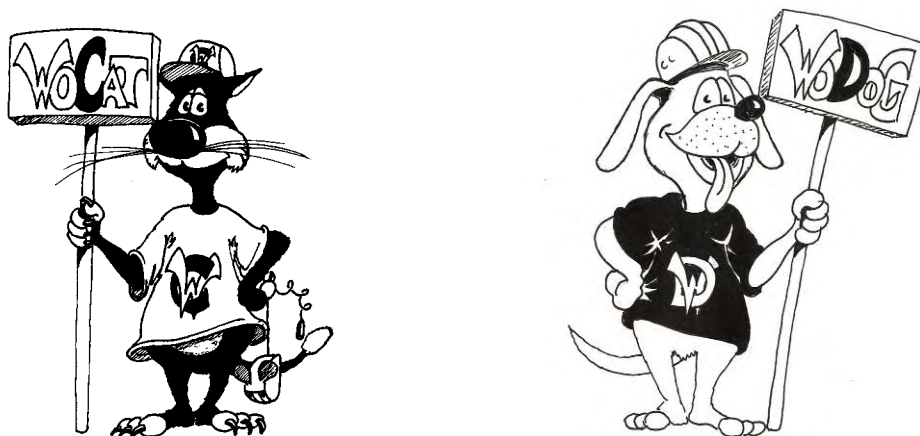
Information sharing and networking: the decentralized network is managed by the global management team from CDE Bern (coordination and secretariat), FAO Rome and ISRIC Wageningen. WOCAT is incorporated in the activities and programmes of over 60 institutions world-wide: these constitute WOCAT's network partners. Annual workshops, steering committee meetings and taskforces are key features of the network. WOCAT's major recent emphasis has been on research projects under FAO-LADA, GEF, UNCCD, TerrAfrica and the EU, as well as on national level programmes.

Research training and education: So far, over 500 SLM specialists have been trained to use WOCAT tools and over 30 WOCAT-related MSc and PhD studies have been carried out. The role of WOCAT's research is to assist in filling knowledge gaps, as well as testing and developing methodologies. The key issues addressed by research are: (a) area coverage of degradation and conservation; (b) the assessment of local and global impacts (social, economic and ecological) of degradation and conservation, both on-site as well as off-site, and their relation to poverty reduction, food production, carbon sequestration, desertification, biodiversity, water, and sensitivity/ tolerance to climate variability and change. Some current challenges include using satellite image processing and groundtruthing for assessing "hot" and "bright" spots, and quantifying impact. The involvement of students in WOCAT-related research activities is an asset – for example under the NCCR North South project of CDE, and under EU- DESIRE.

So, what is the way forward under these four dimensions?

1. SLM know-how: Further building-up of the knowledge base is needed and this requires more data as well as trained and committed people. Addressing the global issues related to SLM and degradation such as poverty, food security climate change, water, and desertification are priorities to donors and investors in SLM and rural development.
2. Tools & methods for knowledge management (KM) and decision support: Further development of the global and national standard tools and methods with flexible options/ alternatives is important as needs are constantly changing. Impact monitoring of degradation and SLM as well as the assessment on ecosystem services needs further efforts. Up-scaling and decision support are growing demands. The question of how to achieve "maximum impact" through "least effort" is constantly being asked at the local national and at the global level.
3. Information sharing and networking: Long-term commitment and continuity is needed (SDC amongst other collaborators have set such an example). Synergies between partners (local, national and international) can be further developed, as WOCAT is not an additional burden but can help and be incorporated into existing programs. WOCAT maintains the principle of being open to new demands and to needs of its partners. The principle of building on its own experiences, while simultaneously learning from others must be further pursued.
4. Research training and education: Filling knowledge gaps through research, postgraduate training, and capacity building of both specialists and land users is a key investment for the future of SLM. Investment in knowledge management is needed: SLM is complex - and "best-bet" solutions are needed.

Eventually land users will (or may not!) implement SLM. Our role is to support them in the best possible way. woCAT needs a woDOG: *Worldwide Orientation towards Development On the Ground*.



Regional WOCAT initiatives and experiences

EthioCAT documented SLM practices for up-scaling in Ethiopia

Daniel Danano, Ministry of Agriculture and Rural Development (MoARD), Addis Ababa, Ethiopia (Ethiocat_Danano.ppt)

Ethiopia's economy is heavily dependent on agriculture. However the performance of this sector over the last 30 years has been poor, failing to keep up with the demands of a growing population. Within Sub-Saharan Africa, Ethiopia is considered to be one of the countries most seriously affected by land degradation.

There is thus an urgent need to reverse the current serious levels of land degradation through promoting and scaling-up successful SLM technologies and approaches. However this will require overcoming a number of major gaps, bottlenecks and barriers that have hindered the successful scaling-up and mainstreaming of SLM within Ethiopia, in particular technical, political, financial and/or institutional barriers.

Therefore an Ethiopian Sustainable Land Management Investment Framework (ESIF) has been formulated. This provides a holistic and integrated strategic planning framework under which government and civil society stake-holders can work together. The ESIF sets out guidelines for all donors and other stakeholders to align themselves behind harmonized efforts in current and future investments addressing the interrelated problems of land degradation and rural poverty. The overall development objective is to address the link between poverty, vulnerability and land degradation at the rural community level, through the promotion of SLM practices. Within the Ethiopian Strategic Investment framework (ESIF), WOCAT is used as the major tool for knowledge management and for scaling-up successful SLM technologies and approaches. Underpinning the knowledge base will be the documentation of best practices in the EthioCAT book - covering 33 SLM technologies and 8 SLM approaches in Ethiopia. Thus one of the most keenly anticipated outcomes will be an enhanced knowledge base contributing to the promotion and scaling-up of SLM within Ethiopia.

The ESIF is planned to be implemented in three phases, over a fifteen year period starting in 2009. The budget of the framework is US\$ 6.4 billion for 15 years. ESIF is a framework designed to foster collaboration among stakeholders and financiers of land management projects and programs through harmonization and alignment of approaches and efforts in Ethiopia. It has been designed with full participation of all stakeholders on the basis of the Paris Declaration for Aid Effectiveness and in line with the Government of Ethiopia's strategies for enhancing economic development and environmental management in scaling up best land management practices. Major donors include the World Bank / GEF, the Federal German Government, the Government of Federal Democratic Republic of Ethiopia, the World Food Program and many other bilateral and multilateral organizations. (ESIF draft, 2008).

Ethiopia has been participating in the WOCAT network since its inception. Due to the integration of WOCAT as a major role related to knowledge management in the ESIF, it will become even more firmly established as the standard tool for documentation and scaling-up of SLM practices in Ethiopia.

Use of NepCAT Fact Sheets and future network plans

Sanjeev Bhuchar and NEPCAT team, International Centre for Integrated Mountain Development (ICIMOD), Kathmandu, Nepal (NEPCAT_Bhuchar.ppt)

Nepal has rich experience in natural resource management, watershed management and soil and water conservation. These experiences have not been adequately documented in a format which can be widely accessed. There has also been an absence of a vibrant network of sustainable land management practitioners in the country. These gaps have seriously limited the spread of potential options in the country and beyond.

The most salient features of NEPCAT fact sheets are as follows:

- They describe 21 simple technologies and 9 approaches related to on-farm production, sustainable agriculture and soil and water conservation from Nepal, which hold potential for replication in other environment with similar characteristics.
- This constitutes a collaborative effort of ICIMOD and Sustainable Soil Management Programme of Helvetas/ Intercooperation.
- It was inspired by WOCAT's "where the land is greener" overview book.

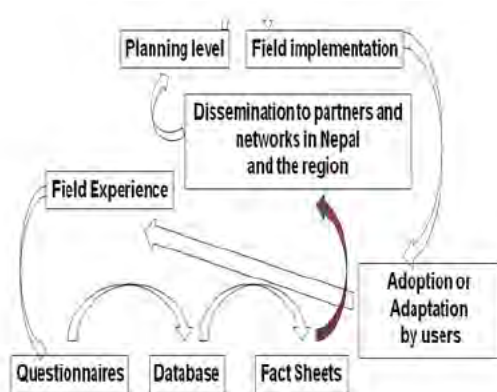
- Support came from SDC, ICIMOD, Helvetas Nepal, Intercooperation, WOCAT and the Ministry of Agriculture (Nepal).

For more information on NEPCAT fact sheets go to:

<http://dev.icimod.org/elibrary/index.php/search/subject/3>

The NEPCAT team's future plans are as follows:

- Continue to disseminate the publications and be involved in network activities;
- Translate selected NEPCAT fact sheets into the local Nepali language;
- Give an orientation on WOCAT to more organizations in Nepal in December 2008;
- Conduct a training on WOCAT methodologies for interested organizations in nepal in 2009;
- Facilitate experience sharing on the application of WOCAT methodologies among new network members; and
- Provide feedback to regional HIMCAT and global WOCAT network.



The NEPCAT fact sheet process

It is hoped that these efforts will support rural development in Nepal and provide impetus and ideas for decision makers, development actors, and land users. For more information on NEPCAT please contact himcat@icimod.org and join HIMCAT extranet www.himcat.icimod.org.

Multi-Institutional partnership in the dissemination of SLM Technologies

Romeo Labios¹, Virgilio T. Villancio², Jesus Javier³, and Arnulfo Gesite⁴, International Rice Research Institute¹, University of the Philippines Los Baños², Department of Environment and Natural Resources³, Department of Agriculture⁴ (Philippines_Labios.ppt)

The Philippine Conservation Approaches and Technologies (PHILCAT) was formally organized in September 1999 through a Special Order of the Secretary of Agriculture. It is an Inter-agency Committee for WOCAT and the Asia Soil Conservation Network (ASOCON) in the Philippines. The committee is represented by different universities, research institutes and also by professional societies, and is chaired by the Director of the Bureau of Soils and Water Management, Department of Agriculture. The idea behind PHILCAT is to actively promote and disseminate conservation, development and management of soil and water resources. Through the committee, a number of conservation approaches and technologies have been documented using the WOCAT tools and were included in the WOCAT global data base. Three technologies and one approach were included in the global overview book "where the land is greener" (WOCAT, 2007).

The functions of the PHILCAT committee are diverse, and include the following:

- Prepare documentation and analysis of SLM technologies and approaches
- Develop a joint program proposal for WOCAT and PHILCAT for internal and external funding
- Conduct workshops/ trainings
- Formulate policy recommendations
- Preparation of up-to-date information and extension materials relevant to SLM - Link PHILCAT to other international institutions and initiatives
- Meet regularly, plan and implement related activities and accomplish its mandate
- Maintain contacts/ networks with local/ international partners, institutionalize technical information exchange on conservation farming

WOCAT tools are used in the academe in the undergraduate and graduate courses in Soil Science, Agricultural Systems, and Forest Resource Management, particularly in the University of the Philippines Los Baños, Leyte State University and Benguet State University.

PHILCAT brings together different SLM initiatives from public institutions/ agencies, international agricultural research centres and private industries. The 'Landcare' project is a SLM initiative by the World Agroforestry Centre Philippines, an international agricultural research centre. Farmers who are interested in learning and sharing knowledge about SLM and new SWC measures organise themselves into the so-called 'Landcare' associations. These self-help groups are vehicles for knowledge exchange, training and dissemination of SLM technologies.

The Grassland Conservation Project is another example of a private organization (MONSANTO Philippines) involved in SLM initiatives - and hence in the PHILCAT activities. The project introduced conservation-tillage as a technology for sustainable farming on hilly grasslands in the Visayas. From an initial 750 ha planted to corn, it increased to 17,000 ha after 2 years.

The Conservation Farming Village (CFV) is a modality for enhancing the transfer of conservation farming technologies and practices anchored in participatory planning, monitoring, and evaluation processes at the community level. It is an in-situ showcasing of a model S&T (Science & Technology) based farm within a model village where practitioners, farmers and other stakeholders can observe and have hands-on experience in technology application.

A partnership of different institutions/ agencies - as maintained within PHILCAT - brings greater benefits and results than working individually, and enhances the knowledge, skills, and resource capacity of partners.

No-till experiences in Switzerland

Wolfgang G. Sturny, Andreas Chervet, Peter Hofer, Bernese Office for Agriculture and Nature, Soil Protection Service (No-tillSwiss_Sturny.pdf)

Inappropriate soil tillage causes various land management problems. The increasingly heavy weight of the machines and tractors used in Swiss agriculture lead to decreased water infiltration and soil compaction. Furthermore, intense soil tillage aimed at creating a fine seedbed can lead to severe soil erosion problems - especially in hilly areas. Additionally, experiments have shown that there is no correlation between seedbed fineness and plant yield.

Since 1994 a unique long-term field experiment of the Bernese Soil Protection Service has been conducted in Zollikofen, Switzerland comparing no-till, with conventional tillage using a mouldboard plough. While the experiments demonstrate results in favour of no-till, the overall performance of, and knowledge about, no-till is still inadequate.

No-till is actively promoted in different Swiss cantons. In Bern, Aargau, Fribourg and Lucerne farmers receive financial assistance to apply no-till over a sustained period of years. To further promote no-till in Switzerland the Swiss soil conservation association named 'SWISS NO-TILL' was established. The members are mainly farmers and contractors, but also extension agents, researchers and teachers (www.no-till.ch). SWISS NO-TILL provides a platform to disseminate knowledge about no-till, and is also actively involved in research projects.

Even though no-till provides many advantages compared to conventional tillage, there are still a few unsolved challenges remaining. These can be summarised as follows:

<i>Challenges of no-till</i>	<i>Possible solutions</i>
develop risk of mycotoxins	crop rotation
require herbicides such as glyphosate	cover crops (that freeze off)
novel, expensive no-till technology	requires corporate ownership and utilization
lacking know-how	learning by doing, need for research

No-till in practice

Stefan Minder, MIGAMO no-till cooperative, Switzerland (No-tillSwiss_Minder.pdf)

In 1998/99 the 'MIGAMO-association' consisting of a machine-sharing and no-till company was founded in the region of Oberaargau (50 km east of Bern). The aim of this cooperative was to establish a customer service for no-till drilling. In a second phase in 2004 the "MIGAMO no-till-cooperative" originated as an

organisation for customer service, consulting and developing the no-till system in the region. Currently, in 2008, the organization consists of 11 members, and works with 5 drills and a single planter.

The incentives for farmers to change to a no-till system are numerous. Tillage costs associated with fuel, machines, and labour can be saved. Curiosity - and copying a new (and promising) method from the neighbour are other stimuli to change to no-till systems. There are also ecological arguments including improved soil structure, through encouraging the breeding of earthworms, that can play a role in the farmer's decision.

Various factors aspects have lead to a domino effect and increasing adoption of no-till in Oberaargau. These aspects are: reliable service, conclusive results, close collaboration with research, word of mouth advertising and publicity, and good quality consulting services. Furthermore a service provider like MIGAMO has to be innovative with progress in finding new and better solutions for the application of no-till. MIGAMO tries to achieve this by enhancing close collaboration with research in the development and construction of new no-till drills.

Due to the active promotion of no-till by MIGAMO in Oberaargau the total area on which no-till is applied has grown from 140 hectares at the beginning of MIGAMO (1998-1999) to 1,000 hectares in 2008.



*Speakers at the symposium: Hans Hurni, Hans-peter Liniger, Daniel Danano
(Photos: Mats Gurtner)*

Global partnership and future development

Mapping degradation and conservation: from local green spots to widespread SLM (FAO-LADA, ISRIC and Ministry of Agriculture, South Africa)

Lehman Lindeque, DoA, South Africa (Mapping_Lindeque.ppt)

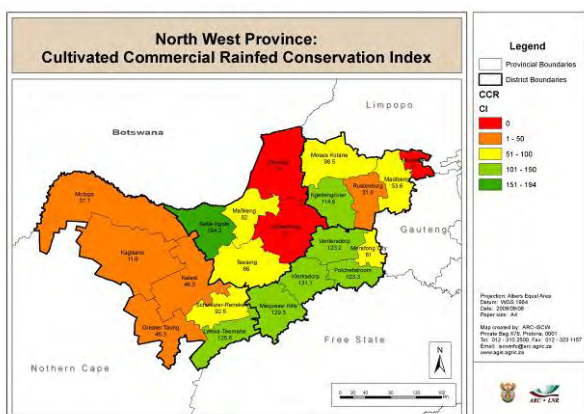
The magnitude and impacts of land degradation vary greatly from place to place and change over time. There are, however, wide gaps in our understanding and observation of degradation processes and their underlying factors. A better delineation of degradation would enable cost-effective action in areas affected by it. The WOCAT/LADA Mapping Questionnaire (QM) for Sustainable Land Management provides a well-established methodology for land degradation assessments at different scales.

The aim of the LADA Programme is to assess the causes, status and impact of land degradation in drylands in order to improve decision making for sustainable development in the drylands. In South Africa, Land Use System (LUS) units (e.g. grassland or cultivated irrigated land) within the boundaries of local municipalities, are considered as mapping units for the completion of the WOCAT/LADA Mapping questionnaire matrix. Data capturing is done in a participatory way during a Participatory Expert Assessment Workshop with a range of local stakeholders and experts. In the North West Province for example, 102 experts participated in 4 PEA Workshops and the average years of experience for these participants were just over 15 years.

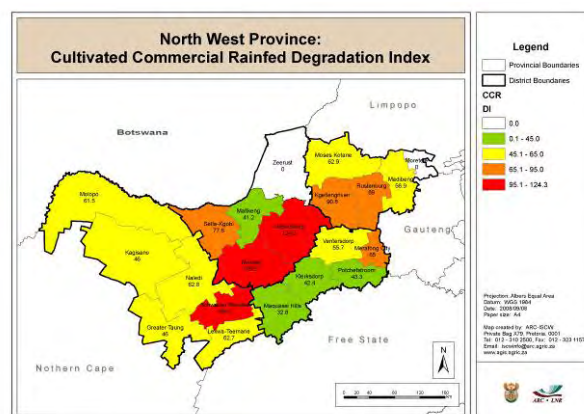
The Driver, Pressure, State, Impact and Response Framework (DPSIR) provide the bridge to overcome the gap between QM Matrix data on the different land use systems and management information for better decision making at district, provincial and national levels. Different variables from the QM Matrix were used to develop a Degradation and Conservation Index for the different mapping units. Together, with the variables of the DPSIR framework, the Index values provide the basis, not only for determining priority areas for future action, but also for understanding the phenomenon of land degradation and conservation. Once we understand land degradation and conservation better, we can identify leverage points whereby we can achieve the best possible SLM for different LUS, considering the limits of the specific ecosystem and resources available.

Map 1 and 2 are examples of the degradation and conservation indices for the land use “cultivated commercial – rainfed” for the local municipalities of the North West Province.

The WOCAT/LADA Mapping Questionnaire indeed provides a well-documented methodology for land degradation and conservation assessments at different scales and together with the DPSIR framework, a basis for better decision making towards Sustainable Land Management.



Map 1: Cultivated Commercial - Rainfed Degradation Index for the NW Province



Map 2: Cultivated Commercial Rainfed - Conservation Index for the NW Province

Climate change and SLM: TerrAfrica's aligned efforts for Sub-Saharan Africa

*Anne Woodfine, FAO-consultant, and Frank Sperling, World Bank
(ClimateChange_Woodfine-Sperling.pdf)*

Africa's climate has long been recognised as complex; also varying - the historical climate record shows warming of approx. 0.7°C over the 20th century. Predictions for the next 50 years are that all regions of Sub-Saharan Africa (SSA) will experience increasing and more extreme temperatures - ranging from 0.2°C to more than 0.5°C per decade. The other main features of climate change (CC) will be drying of the Sahel and Southern Africa, with increased rainfall in the Horn and East Africa, and increased precipitation intensities in the latter.

Conversion of natural systems to cultivated agriculture results in losses of between 20 and 50 percent of pre-cultivation soil organic carbon (SOC) stocks in the surface metre: thus there is clearly carbon storage capacity in agricultural land in SSA. Wherever land use change has resulted in decreased soil carbon, soil carbon can be increase by a comparable (but not equal) amount.

SLM practices which will contribute to CC mitigation by increasing carbon storage include: reducing land clearing; avoiding deforestation; reforestation and afforestation; conservation agriculture and improved rangeland management. SLM can also reduce emissions of other GHGs: (1) by reducing the need for/ careful use of/ avoiding overuse of N fertilisers (emissions of N₂O are 296 times more potent than CO₂); (2) changes in management of irrigation systems (emissions of CH₄ are 23 times more potent than CO₂); and (3) reducing farm energy demand.

Increasing SOC using SLM practices brings multiple adaptation benefits, including: increased rainfall infiltration rates; increased water holding capacity; creation of improved conditions for soil fauna (earthworms, termites etc) and related macropores (through root action also) to serve as drainage channels for excess water; stabilizing a much improved soil structure; enhancing fertility (nutrient retention); and increasing "the resilience of the land". The resulting improvement in overall plant growth, therefore, will increase crop and pasture yields in good years and reduce the risk of crop failure (due to drought or flooding) in challenging years - thus increasing food security.

Realistically, benefits can be achieved by gaining incremental improvements within farming systems through encouraging "win-win" SLM practices within the many components of SSA production landscapes (home gardens, arable fields, woodlands, woodlots, rangelands etc). It is recognised that external help and advice will be necessary to rebuild or enhance the ecological resilience of rural communities - indigenous coping and adaptive mechanisms on their own are not enough to respond to the predicted rates of climate change.

A technical report on SLM potential for climate change mitigation and adaptation is being developed for FAO. This report highlights the potential for certain SLM practices to contribute to climate change adaptation (vital for land users across SSA) and mitigation (acknowledging that improved land management practices can sequester carbon and reduce GHG emissions). Based on its wide expertise in the field WOCAT is currently working with TerrAfrica to develop SLM technical guidelines on selected best-bet SLM technologies and approaches for SSA. The review will use information from the WOCAT databases to describe the technologies.

Appropriate SLM approaches to both mitigate and adapt to climate change offer the vital long term tools that can free local communities from their often chronic state of dependency.



Participants at the WOCAT symposium. (Photos: Mats Gurtner)

SLM Knowledge management for monitoring impacts of investments - The GEF Land Degradation Focal Area

*Brigitte Schuster, UNU-INWEH and Andrea Kutter, GEF Secretariat
(ImpactsSLM investments_Schuster-Kutter.pdf)*

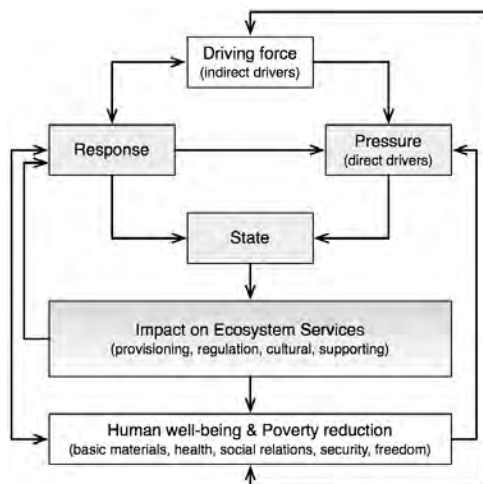
Sustainable Land Management (SLM) in the drylands is significantly impeded by a current incapacity to track its impacts and by the lack of comprehensive knowledge management fora.

The Global Environment Facility (GEF) has acknowledged the need to strengthen systematic knowledge management within its own Land Degradation Focal Area and thus initiated a long-term programme entitled "Knowledge from the Land" (KM:Land) together with a group of United Nations organizations and regional development banks.

It is perceived that a comprehensive approach to SLM assessment and knowledge management represents an important opportunity to guide the future strategic development of the GEF Land Degradation Focal Area, but also to strengthen the global basis for the design and assessment of SLM initiatives beyond the GEF portfolio. Executed and led by the United Nations University, the first phase of KM:Land focuses on selecting indicators to measure and track the environmental and livelihood benefits from GEF SLM interventions and to record results and best practices of projects in the GEF Land Degradation Focal Area. So far, a conceptual SLM framework (see figure below) has been developed, realigning traditional environmental indicator frameworks to a change in thinking on dryland poverty and resource degradation processes, as recommended by the Millennium Ecosystem Assessment.

Second, the initiative has identified four core global indicators, from which a baseline global SLM assessment can be drawn: land cover, land productivity, water availability and rural income levels. This assessment is anticipated to support the prioritization of resource allocation by the GEF.

The next step for the KM:Land initiative includes the development of indicators at the project level, in an effort to demonstrate environmental and livelihood benefits from SLM interventions and aggregate the impacts at the portfolio level. The project also intends to create an SLM Learning Network to promote the exchange of lessons learned and experiences between SLM professionals within and beyond the GEF realm. The main areas of collaboration with WOCAT are seen with regards to the Learning Network component and the development of tools and manuals to document, store and share SLM knowledge. The GEF project will also interact with the WOCAT Task Force on impact monitoring to ensure consistency between the global, national and local levels, to the extent possible.



The universal SLM framework merging the DPSIR and MA frameworks

Decision support for effective implementation and up-scaling of SLM

Gudrun Schwilch, Felicitas Bachmann, Hanspeter Liniger, and Ernst Gabathuler, CDE, WOCAT, EU-DESIRE (DecisionSupport_Schwilch.ppt)

For a better understanding of the scope of the methodology presented, the audience was asked to imagine a hypothetical situation where an agricultural advisor in a desertification-prone area needs to find a way to combat degradation and improve land production in order to support the land users in his/her local area. Politicians at the district level may have mapped hot and bright spots and urge him/her to get active. But how and where would he or she find best practices, proven strategies or new ideas? And how would such a person proceed in appraising and selecting the best options and promoting SLM with, and among, land users? The main aim of the methodology presented here is to promote effective and widespread implementation of SLM at the field level - which we argue is only possible if strategies are socially acceptable and economically viable, thus requiring a local process with proper assessment and involvement of stakeholders in decisions. The methodology has been developed within the EU project DESIRE (www.desire-project.eu), a 5-year global research initiative to mitigate desertification and remediate degraded land in collaboration with WOCAT (www.wocat.org).

The suggested framework for the appraisal and selection of options to mitigate land degradation consists of three parts: in the first step, prevention and mitigation strategies and innovations already applied at a selected site are identified, during a workshop, with representatives of different stakeholders groups. . The workshop methodology is based on a 'learning for sustainability' approach, initiating a mutual learning process among the different stakeholders through sharing knowledge and jointly reflecting on current problems and solutions. In the second step, these identified solutions are assessed in detail using the comprehensive WOCAT questionnaires. These help to document and evaluate all relevant aspects of technical measures, as well as implementation approaches. The third part consists of another stakeholder workshop where promising strategies for sustainable land management are selected and adapted for field trials at the local site. The stakeholder group thus works through a series of steps to reach a decision. The search in the WOCAT database, containing the local solutions evaluated (as above) and other practices from around the world, is facilitated by following a series of key questions, limiting the selection to 4-7 options. These potentially suitable options are then assessed with the help of a decision support tool that is based on multi-criteria evaluation. The stakeholder group identifies about 12 ecological, economic as well as socio-cultural criteria and their relative importance and thereafter scores each option against these evaluation criteria with a practical scoring tool. Open-source software helps to calculate and visualize the relative merits of the options from the identified criteria, and from scoring made by the stakeholders.

The methodology offers distinct challenges through the variety of stakeholders involved and the responsibility of the moderator as well as topically. The complexity of SLM needs to be recognized/ understood to find successful solutions and it is therefore also crucial to involve SLM specialist and multidisciplinary researchers into such a process. Selection of viable options requires a critical mass of local - as well as external - data on best practices to broaden the variety. Each user of the WOCAT database should therefore be a provider at the same time by documenting the own success stories. The development of such tools for decision support and up-scaling SLM is fully in line with strong current international demand (e.g. GEF, TerrAfrica, UNCCD, CGIAR, and UNEP).



*Discussion at the WOCAT symposium.
(Photo: Mats Gurtner)*

Feedback and discussions on the way forward

Group work on:

1. Database & decision support

Report by Lewis Njeru, SWALIM and Gudrun Schwilch, CDE

(a) Database enhancement / population

The group suggested making the WOCAT database a general standard within national programmes. Latin America should be included as well (e.g. through FAO, CIAT).

To enhance the size of the database, contributions might be acknowledged as peer-reviewed documents, which would require a form of review panel. The WOCAT database should - and can - be used as an internal working environment, before making it accessible to the global public. Further debugging of the database software was also requested, while the new on-line system must become more user friendly than the previous Access version. Language is a major obstacle to sharing information worldwide. For Chinese users, for example, it is difficult to work with the English version and to provide data in English.

It is important to know about the cost/benefits of a given technology/approach, but this is very difficult to estimate. Certain indicators might help (costs, yields, etc.) and these are already included into the questionnaires. The group agrees that the scope of the questionnaire is wide enough to cover all relevant aspects.

(b) Use of WOCAT database for decision support

The collected and stored information within the WOCAT database should be used for decision support, not only at the national level, but also at the global level. The currently developed local decision support tool used in DESIRE should be linked with LADA/WOCAT national mapping and its developments for decision support. For this, NCCR methods on socio-economic aggregated data and pattern analysis might be used and included. Developing an interactive decision support system should be envisaged, to follow up on the DESIRE system that can be used at the national or regional level, and should include criteria selection, priority setting, scoring, etc.

The group discussed whether the scope of the DSS should be broader than SLM, and also focus on sustainable development (including livelihood aspects). This could be achieved, for example, by introducing components in the mapping methodology which relate to sustainable development. But there is a discrepancy between broader scope and being specific - and the group decided that WOCAT should remain focused on SLM.

Currently, the technologies and approaches described in the database give information about the human and natural circumstances under which they are applied. For up-scaling, the information about where it could potentially be applied is also essential. The group suggested overcoming this gap with modular tools, additional to the basic questionnaire.

It was generally felt that the local variability is often high, which therefore requires a local selection and decision process. Capacity building is needed on the use of the database for decision support as well as on moderating the decision-making process. The language problem is also evident here. Generally, the WOCAT database should also be used for awareness creation on SLM.

2. Global issues

Report by Niranjan Sahu, OWDM and Rima Mekdaschi Studer, CDE

As a start to the group work the participants named today's relevant global issues in relation to SLM and WOCAT. Mentioned and briefly discussed were:

- Climate change (e.g. soil carbon sequestration, organic matter, impacts on land use)
- Pollution of water bodies
- Air pollution (e.g. deposition of nitrogen and pollutants from atmosphere)
- Food crisis and security (rising food prices)
- World economy crises (trade liberalization, impact of globalization)
- Biodiversity
- Population growth (people are expanding into more marginal lands)
- Poverty

- Resource conflicts (migration and brain-drain from rural to urban areas)
- Energy crisis (e.g. biofuels, renewable energy)
- Communication technologies

Further, the question regarding how WOCAT could integrate, react and cover current global issues was discussed. WOCAT has developed a flexible modular method/tool, which comprises the basic questionnaires on Technologies and Approaches as a core, to which complex and more specific topics can be linked to it as modules. Therefore the possibility to react and cover current global issues is present, thus the “how” and “what” were debated:

- Indicators for impact assessment for donors and policy makers (support the efforts of global partners)
- Provide evidence (link to research) to decision makers.
- Modules on carbon sequestration (C in the soil and in biomass, important for drylands)
- Module on how SLM can contribute to adaptation to climate change
- Modules for energy

Another point that is relevant in the discussion on global issues is the link from the global to the local level:

- Try to coordinate activities among all international actors as well as economic regimes, integrate among globally operating institutions and local institutions (a multilateral approach). Use technologies as a catalyst. As an example, the GEF pointed out the connections between SLM, climate change, international waters and biodiversity focal areas.
- Research, for example on C-emissions (source) and C-sequestration (sink) should start at a national (government) level, and then be extrapolated to the global level.
- Countries to contribute actively to the global data bases by documenting, evaluating and exchanging their experiences.
- Link to the education system
- Potential for agriculture extension
- Establish more partnerships
- Become involved with FAO, UNCCD, UNFCCC, CBD

There is an opportunity to profit from the current discussions on global issues, especially climate change and biodiversity as funding options/ opportunities for SLM activities. These opportunities are still underestimated in their potential to catalyse sustainable development. Also, a change in the funding pattern of donors was brought to attention: agricultural research and extension will in future receive more funding.

In many parts of the world the foremost issue is relieving and helping the poor without forgetting the ‘environment’ and the challenges of an ever-changing environment. One participant indicated that Sustainable Land Management can be seen as the nucleus of good local governance and that WOCAT is also able to lobby more for SLM by:

- showing evidence using WOCAT tools (global/ regional/ national databases on Technologies and Approaches, decision support tools etc)
- maps as evidence to show where and what is taking place (WOCAT-LADA mapping tool)
- proper packaging to reach policy and decision makers (WOCAT templates and examples of outputs)

3. Knowledge gaps and research

Report by Godert van Lynden, ISRIC and Christine Hauert, CDE

In a first step the group tried to identify knowledge gaps, especially in relation to ‘impact monitoring’. The group agreed that, very often, a comprehensive impact assessment is missing, but for measuring effects at the field level impact assessment is a crucial prerequisite. WOCAT and its questionnaires in general already provide indicators and methods for measuring impacts at field level. However, long term monitoring is very difficult within the WOCAT process, since people within institutions and organizations change continuously. Therefore WOCAT very often provides snapshot information rather than long-term data. The group members emphasised that there is a need for standardized monitoring tools or guidelines for impact monitoring. Members of the WOCAT taskforce on ‘impact monitoring’ explained that this is now in development. The WOCAT-taskforce is trying to develop a prototype for a participatory impact monitoring tool, with key indicators for ecosystem services and “rough” methods for the assessment of

these indicators. The group agreed that it is very difficult and a major challenge to gather the hard data that would be needed to specify and quantify the impacts of degradation and conservation.

In a second step, different aspects of how to address knowledge gaps were discussed. It was mentioned that a thorough literature review¹ and screening of existing research is very important. Students could become more involved in research activities addressing knowledge gaps and developing methods and tools. Furthermore, collaboration between different Universities and organizations needs to be enhanced - including internship of students, collaboration in specific research projects, collaboration in support of MSc theses, etc. Special focus should also be laid on interdisciplinary collaboration projects, for a broader perspective within research.

A further point of discussion was related to the WOCAT database. The group agreed that a good and broad database is a prerequisite for knowledge management. However, there exists the problem of updating old case studies and integrating the information gained with the new questions. On one hand the WOCAT tools should be a standardised methodology but on the other it is necessary to gradually adapt and integrate the newest global issues and requests in the WOCAT questionnaires and tools. The group discussed how WOCAT should handle this dilemma. Other participants of the group preferred documenting new case studies instead of expanding/ deepening existing ones with research.

Statement: *WOCAT is a very comprehensive tool for assessment, but not for research.*

¹ Literature: in relation to 'impact monitoring' is already a lot available, e.g.:

- Earl, S, Carden, F., Smutylo, T. 2001. *Outcome Mapping – Building learning and reflection into development programs.* International Development Research Centre (Canada). ISBN 0-88936-959-3
- Herweg, K., Steiner, K. 2002. *Impact Monitoring & Assessment. Instruments for use in rural development projects with a focus on sustainable land management. Volume 1: Procedure & Volume 2: Toolbox.* Centre for Development and Environment, Bern. ISBN 3-906151-58-1 & 3-906151-59-X

4. WOCAT coordination and funding: the way forward

Topic 4 of the working group discussion was about donor expectations, donor coordination, the prospects of long-term funding for the global WOCAT system, and proposing the establishment of a donor core group.

By Sally Bunning, FAO and Hans Hurni, CDE

(a) Donor expectations

WOCAT Institution: WOCAT should now be considered as a global institution, which works internationally and is supported by its primary partner institutions with core as well as and supplementary operational funding, and which carries out activities in line with the WOCAT programme in addition to the tasks assigned by the participating institutions.

Well-evidenced results: According to the members of the working group, donors would like to see that continuous progress on the use and application of WOCAT be well demonstrated by the global network, both on the internet as well as in targeted publications.

Increased use: Despite its wide success among many national and international partners in over 40 countries, WOCAT can still further raise awareness about its knowledge and information base, and increase its use among research and development partners, such as the CGIAR institutes, FAO, GEF, and the WB. WOCAT could make better use of umbrella programmes such as TerrAfrica and MENARID for wider knowledge and use of WOCAT in their implementation processes.

Increased application: Donors would expect WOCAT to further build bridges from its products to investments in the land, particularly through knowledge for decision-making. For example, WOCAT could identify the potential for wider adoption of technologies and approaches; for example in the mountain-development programmes of such countries as well as bilateral donors. WOCAT should be a recognised source of knowledge/information on sustainable land management (SLM), as well as a database of resource persons knowledgeable in SLM.

Standard: WOCAT should ensure that its standards in technologies and approaches, and its tools, are accepted by GEF, development banks, investors. By using WOCAT tools these institutions can ensure that SLM responses are based on sound science and appropriate tools.

Mainstreaming: WOCAT should make use of the international poverty and development agendas and processes to raise awareness.

Conventions: WOCAT should use international conventions such as the UNCCD (desertification), UNCBD (biodiversity) and UNFCCC (climate) and their meetings (Conference of Parties) to demonstrate opportunities for the application of WOCAT tools.

(b) Donor coordination and funding

Sensitisation: Donors could help sensitise Ministries of Agriculture (crop, livestock, forestry, water sectors) and other concerned institutions to highlight the importance of SLM for enhanced productivity and food security (in addition to legal treaties and provision of inputs such as fertilisers, seeds etc.)

Funding: WOCAT funding requires streamlining. There is a general need to ensure continuity in funding, consisting of core funding to the WOCAT coordination, plus modular funding both at the global as well as at national levels. Current global agendas of the world community have a lot to do with land degradation and sustainable land management, such as food prices, the energy-biofuel nexus; mandates given by politicians, etc. There are a number of national and donors budgets that can potentially be tapped, including specific regular, and emergency, funds. There is also a need to “market” WOCAT for these different funding sources. In order to avoid donor fatigue, as is common for long-term initiatives, WOCAT should seek money for planned SLM actions to be carried out by the WOCAT institutional network, rather than for “WOCAT” as an entity itself.

Co-funding: WOCAT could make better use of ‘silent’ partners, through becoming a component of other programmes in the same field, and through this enabling its application in a co-funding mode. WOCAT could also make better use of national and partner programmes, for example poverty reduction programmes or large-scale GEF and other investment projects for SLM. This would help in scaling-up, but there is a need anyway to mainstream WOCAT tools towards such differential uses.

In kind contributions: There are a great number of national in kind contributions, which can be acknowledged more regularly and more explicitly in order to maintain such long-term commitments (e.g. in South Africa, China and Ethiopia.)

(c) Donor core group and support committee

Proposal: WOCAT should establish a Donor Core Group that would (a) work on a common strategy and work plan, (b) rationalise and thus limit its reporting obligations, (c) inform other donors if funding is changing, (d) ensure wide funding sources from the private and public sectors, and (e) by including various technical sectors, attract new donors’ interests (Kilimo, Gates, etc.).

Modality: The group would interact through email or telephone conference. However, this should be done regularly in order to update on prospects and progress, as with this current symposium, and should always be based on informed evidence of WOCAT outputs and products. The group could make good use of the next series of global events or meetings, such as the UNCCD, UNCSD, UNFCCC, etc., in order to have a common voice there. In addition, participating governments’ voice should be added, for example where WOCAT is working well, in order to inform such policy forums of the results of using WOCAT tools.

Focus: Particular attention should be given to help National Focal Points in their efforts at the national levels. Through this, WOCAT would maintain its bottom-up approach, which has been the basis of its past success. Likewise, it would be advisable to consolidate existing donors rather than putting all efforts into finding new donors. Text will follow

5. Linkages of CDE to WOCAT

Report by Bettina Wolfgramm, CDE

This group consisted only of participants from the Centre for Development and Environment (CDE), University of Bern with the idea of discussing possible linkages/ synergies between CDE and WOCAT. All issues discussed, started off by acknowledging the great opportunity that the standards for documenting SLM systems and the existing database of WOCAT provide. Three topics were discussed where promising links between CDE and WOCAT exist and should be strengthened: (a) impact assessments, (b) spatial assessments/ mapping and (c) decision support.

a) Impact assessment: Data obtained from documenting SLM systems using the WOCAT questionnaires clearly indicates impacts on ecosystem services however only in a qualitative or semi-quantitative way. At CDE various MSc and PhD studies have already been conducted with the aim to better quantify the impact of SLM systems on soil and water conservation and on ecosystem services. The NCCR North-South (e.g. in the Eastern and the Horn of Africa as well as Central Asia) and COST 634 studies (within Switzerland) have shown that using WOCAT methodology in conjunction with new laboratory methods for fast, non-destructive and low-cost prediction of soil properties such as soil reflectance spectral measurements is promising. To estimate the C-sequestration potential and allow accounting of it, to determine the temporal frame of SLM impacts, but also to identify trade-offs, the efforts in quantitative impact assessment shall be extended. This will be done for example in a Research

Project to be conducted in Phase 3 of the NCCR North-South to assess the impact of SLM systems on agricultural productivity and carbon sequestration in Tajikistan, Ethiopia and Kenya.

b) Mapping: Opportunities for WOCAT to make a better use of GIS and remote sensing were discussed. So far impact assessments focused mainly on the local scale, but information at the regional scale is also much required, which is a considerable challenge. The search for indicators suitable for information extraction from remotely sensed data as well as for being linked with the existing WOCAT classification system needs to be continued. Mapping of conservation, not only of degradation as commonly done, is strongly advocated by WOCAT and taken up by CDE research. Furthermore, linking participatory mapping with remote sensing and GIS is a topic that needs further exploration. CDE had the lead in the development of the recent WOCAT-LADA joint mapping methodology to assess sustainable land management practices and in linking them to degradation and conservation through a participatory expert assessment. The WOCAT/LADA mapping tool can be further enhanced. Research Projects in the new phase of the NCCR North-South and covering South-East Asia, Central Asia, Horn of Africa and East Africa provide great opportunities to test approaches in various region of the world.

c) Decision support: In the ongoing EU project DESIRE, a decision support tool has been developed that allows participatory selection of SLM technologies. It facilitates better assessment of SLM technologies and approaches, and better support of the negotiation process concerning the selection of best option(s) for a given human and natural environment. To develop this tool, WOCAT was linked to CDEs approach 'Learning for Sustainability' and an open-source software was used to come up with a user-friendly tool. In this way, WOCAT can also be a very suitable tool for extension services. Further development of such applications is foreseen, and has been included in various research proposal recently elaborated by CDE.

Closing

William Critchley, CIS, VU-University Amsterdam and Hanspeter Liniger, WOCAT coordinator (WOCAT-closing.ppt)

WOCAT has become an institution: this is a testimony to the dedication over more than 15 years of WOCAT's sponsors – most notably SDC – and its partners. This is further reinforced by the presence here today of so many people with longstanding commitments to the programme: partners from development organisations as well as research, and furthermore a number of students have participated in this symposium. There is every indication in what we have heard throughout the symposium (and this confirm what we all know) that WOCAT is alive and well, and being used in many different ways in various countries. WOCAT has become firmly embedded, and is setting standards worldwide as a knowledge management system for SLM and decision making.

The book "where the land is greener" has consolidated WOCAT's place at the forefront of new advances in sustainable land management. This is not simply because it presents well described and illustrated case studies, but it also provides clearly articulated policy pointers. And WOCAT is influencing policy makers. This impact on decision makers is strengthened further now that climate change has been linked to soil carbon, and thus SLM is recognised as a tool in the fight against climate change. WOCAT can thus claim to have even more "global" relevance than it did before.

Considerable mention has been made about the need to "upscale" successes. But it must be recognised that WOCAT has highlighted many examples where traditions, introduced technologies and /or local innovations in SLM have spread widely and rapidly: sometimes simply by farmer-to-farmer exchange of knowledge. This is why it is important to analyse and learn from both the approaches and the technologies. Once again the policy guidelines within the book give pointers to how this can be achieved.

The future of WOCAT is ensured in that it has been embraced by so many national programmes, and has firmly linked together so many different partners: individuals as well as institutions. Certainly there are challenges ahead such as further up-scaling of sustainable technologies, the need to develop maps of SLM, and the requirement to quantify impacts of SLM on ecosystem services, food security and poverty alleviation. WOCAT will also need to increasingly focus on adaptation to, and mitigation of, climate change, WOCAT is overcoming constraints and forging forward.

SLM is complex and we need to stand up for it: “as little as possible – but as much as needed” is the guiding maxim. In order to provide useful support to land users and decision makers all over the world the concluding policy point in the book “where the land is greener” is all important and deserves highlighting here:

Policy points: investing in soil and water conservation

Investment in rural areas and SWC is a local concern, a national interest, and a global obligation. Thus it must be given priority:

- at the local level: to increase income, improve food security, and sustain natural resources – thus helping to alleviate poverty in areas where the livelihoods of the majority depend on agricultural production;
- at the global and national level: to safeguard natural resources and ecosystem services and in many cases to preserve cultural heritage.

Investments in SWC must be carefully assessed and planned on the basis of properly documented experiences and evaluated impacts and benefits: concerted efforts are needed and sufficient resources must be mobilised to tap the wealth of knowledge and learn from SWC successes. These investments will give ‘value for money’ in economic, ecological and social terms.

Conclusions and policy implications



Speakers at the symposium: Sanjeev Bhuchar, Anne Woodfine, William Critchley (Photos: Mats Gurtner)

OPENING AND INTRODUCTION WWSM

Rapporteur: Christine Hauert

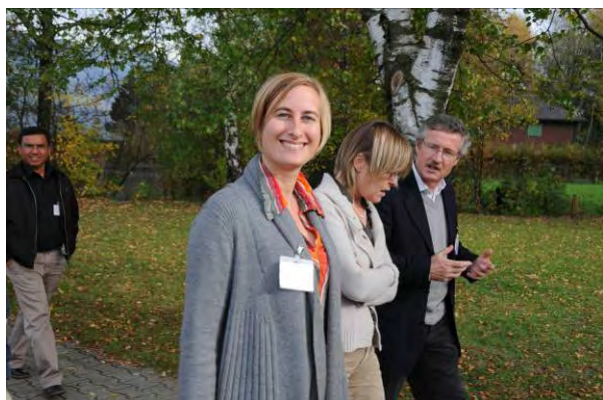
Reflection on the symposium

Before starting with the workshop programme a short reflection on the symposium in Bern was made. The introduction speech of Hans Hurni and Hanspeter Liniger and their overview of the WOCAT history and ongoing activities were praised by the WWSM participants. Also the regional/ national WOCAT representatives and the invited speakers from the afternoon were congratulated by Hanspeter Liniger for their presentations.

The symposium was generally appraised as a successful event in the history of WOCAT and as a very important platform for showing the achievements made at the global but especially at the regional/ national level and moreover for creating awareness of WOCAT. Many people attending the symposium were impressed by the various activities and achievements of WOCAT.

Positive points mentioned by the WWSM participants:

- The presentation of the farmer was highly appreciated, so as to involve all stakeholder levels in the discussion.
- Addressing global issues related to SLM was discussed during the symposium – WOCAT is on the right track with addressing climate change and poverty.
- It is important to delineate where to stop in relation to global issues – e.g. *energy issues* only in relation to SLM, otherwise WOCAT is broadening too much and going into direction of sustainable 'earth' management.
- Information sharing is very important, not remain sitting on the information gained – the more you give, the more will come back.
- The symposium was a big chance for addressing decision makers and to impress people critical so far.



WWSM participants in Gwatt at the lake Thun. (Photos: Hanspeter Liniger)

TOPIC 1 PROGRESS REPORTS

Rapporteur: Christine Hauert

The following reports cover the period from October 2007 (12th WWSM Philippines) to October 2008 (13th WWSM Switzerland).

1.1 Activities at the global level

1.1.1 Global Management review – CDE

Report by Rima Mekdaschi Studer

The major achievements will be presented in order of the specific objectives and their expected results that in turn correspond to WOCAT's four dimensions of knowledge stated in the strategy (refer to Strategy 2008 – 2012).

1. Knowledge about SWC and SLM

WOCAT was involved in backstopping activities of new **national/ regional overview books and factsheets**. As a spill-over effect of the global overview book 'where the land is greener' similar compilations at national level were encouraged, initiated and published. The NEPCAT-factsheets are the latest example and were published and promoted in Kathmandu, Nepal in April 2008. Another publication about best land use practices was made by Caritas Natural Disaster Risk Management (NDRM) in Tajikistan. The NRDM-publication uses parts of the WOCAT layout from the overview book. In China a publication consisting of 27 technologies and approaches was finished in 2008.

More than **40 new technologies and approaches were provided to the global WOCAT database** from Ethiopia, Togo, India and Spain. Populating and updating of the WOCAT database should remain a special focus of WOCAT, since the databases are a basic pillar of WOCAT.

Production of **guidelines for best bet SLM technologies and approaches for Sub-Saharan Africa (SSA)**: WOCAT was mandated by TerraAfrica to produce guidelines for best bet sustainable land management (SLM) technologies and approaches in SSA. The goal of the guidelines is to identify, analyze and disseminate promising SLM practices (technologies and approaches) for SSA, based on a solid scientific background as well as based on experiences and representative case studies.

Participation of CDE/ WOCAT in UNCCD Interagency taskforce: Subsequent to COP8 the UNCCD Secretariat has been charged with the primary responsibility of developing reporting guidelines also by drawing on the expertise and experience gained by international organisations and specialized institutions to maximize the potentials for synergetic reporting on achievements and impacts of UNCCD efforts. To this effect, the secretariat established an interagency advisory task force (IATF). A first IATF Meeting was held in Bonn, Germany on 26 – 27 June 2008. The participating WOCAT/CDE team gave inputs regarding knowledge management based on WOCAT experience especially with regard to documenting best practices and in using the WOCAT mapping tools for monitoring land degradation and conservation.

WOCAT wrote a [short paper](#) to position itself in the debate about '**adaptation to climate change**'. The title of the paper is 'Use of WOCAT tools and network to prepare for SLM adaptation to climate change – identification of conservation technologies suitable for climate change'. A meeting with participants from SDC, INFRAS, Intercooperation and WOCAT took place on January 30, 2008 at SDC in Berne. The goals of the meeting and the follow-up discussions were (1) to discuss the feasibility of the WOCAT format for case studies in the field of adaptation to climate change (2) to evaluate how SDC could contribute and get involved in the discussion on integrating climate change into Development Cooperation.

2. Tool (and method) development

The **revision of the WOCAT questionnaires on SLM technologies and SLM approaches** was finalised in March 2008. Among others a new question on tolerance/ sensitivity of SLM technologies to climate variability was included. The questionnaires are now also available in French and Spanish.

A **new inventory table on SLM technologies and approaches** was developed for a quick and coarse survey of available technologies and approaches in a specific region/ country. On the one hand the inventory table shall provide a spatial overview of technologies for the world map and on the other hand it

shall help in the selection of appropriate technologies for a more detailed assessment/ documentation using the WOCAT questionnaires.

A first draft of a **watershed module** was developed and sent for further comments and feedback to taskforce members. This module will be a tool to assess different technologies in a watershed system which are closely linked and depending on each other and thus work as a system.

In collaboration with FAO/LADA and the EU-DESIRE project a revised **mapping questionnaire and methodology** was 'finished' in spring 2008. The new mapping database is almost finished and ready to use. A MapViewer-application is under development which will enable the user to automatically generate an overview map of the data entered. Since early 2008 the mapping questionnaire has been used in 6 LADA pilot countries with backstopping from WOCAT. Additionally the methodology has been used within several MSc-studies in Switzerland and Tajikistan (see also section 4) and will be used for 16 DESIRE study sites.

The development of a new **website and internet platform** was started, including a new visual identity of WOCAT. The new website will be based on a content management system (CMS) to facilitate the use and integration of different functions such as the new online databases and interactive communication platforms like a forum.

New WOCAT databases: in the long run WOCAT aims to develop a web-based, internally flexible online database system. So far the online address database is finished. The database on SLM approaches will be finished end of 2008. The development of the database on SLM technologies should be started before the end of 2008.

Within the DESIRE project WOCAT/CDE has basically contributed to the development of a **decision support methodology**. The WOCAT tools such as the database and the questionnaire on SLM technologies form a major pillar in the decision support methodology. The methodology has been tested in DESIRE study areas since early 2008 and shall be further spread within WOCAT initiatives.

Backstopping and supporting the development of a simple local impact assessment and monitoring tool as was requested by partner countries.

3. Information sharing and networking

New initiatives were started in Ghana, Madagascar and Senegal. The Madagascar initiative was started within a CDE-ESAPP-project using WOCAT tools for monitoring and assessing different technologies and approaches on grazing land. WOCAT contributed to the start of the Ghana initiative by providing seed money. Through the DESIRE-project the WOCAT methodology is also further spread and introduced in the DESIRE study areas (e.g. Morocco, Spain, Portugal, Chile, etc.)

WOCAT was introduced in **Afghanistan and Bhutan through ICIMOD** by making an orientation about the tools and methods of WOCAT. The start of a new WOCAT initiative in this region is planned.

The paper '*A methodology for appraising and selecting strategies to mitigate desertification based on stakeholder participation and global best practices*' was presented at the **ISCO conference in May 2008 in Budapest** as a collaboration between the DESIRE-project and WOCAT. Same at the European Geosciences Union (EGU) meeting April, 13 – 18 in Vienna.

4. Research, training and education

Within 3 **MSc-studies** the new WOCAT mapping methodology was tested in **Switzerland** and in **Tajikistan** and supervised by CDE/ WOCAT.

Four new SLM technologies and approaches covering conservation measures such as direct seeding and mulching were documented within several BSc-studies in **Switzerland**.

A 3-days **field course** for MSc-students and a 1-day field course for BSc-students about SLM were conducted in March 2008 in Switzerland.

Within the Bern **University course** 'Research Methodology in Sustainable Land Management – FS 2008' MSc-students were introduced to SLM and also had practical exercises based on WOCAT material and experiences.

In **Mongolia a 5-day WOCAT training workshop** for documentation and evaluation of SLM technologies and approaches was conducted in May 2008. The output of the workshop was 6 technologies and 1 approach documented and 9 workshop participants educated from the Geo-Ecology and other institutes. A Mongolian database for SLM technologies and approaches was established.

The **LADA/ WOCAT mapping methodology** has been tested and used in 6 the LADA pilot countries (South Africa, Senegal, China, Argentina, Cuba, Tunisia) with backstopping from WOCAT. The latest WOCAT – LADA mapping training workshop took place in September 2008 in Pretoria, South Africa.

CDE/ WOCAT actively participated in two **DESIRE workshops** in the first half of 2008. The second general meeting was conducted in Cape Verde, West Africa. In April 2008 a DESIRE WB3 training and workshop leaders meeting was organized in Bari, Italy by CDE/ WOCAT (leader of WB3).

5. Basic enabling activities at the global level

13th Annual WOCAT Workshop and Steering Meeting and the WOCAT symposium on 'Promoting Sustainable Land Management (SLM) for its Local and Global Impacts' from 20 – 25 October 2008 in Switzerland. Both the symposium and the WWSM give WOCAT the opportunity to further promote the WOCAT network and activities in Switzerland and enhance the collaborations with national organizations.

WOCAT taskforce meeting on 'Impact Monitoring' from 16 – 18 October prior the 13th WWSM in Bern. For the TF-meeting all TF-members and selected SLM specialist with focus on 'impact assessment/monitoring' were invited to ensure a broad range of experiences and knowledge. The overall aim is to develop, test and approve a 'participatory impact monitoring and assessment tool'.

Secure new and continued funding. A financial contribution within FAO's national assessment of land degradation and conservation was given to WOCAT/CDE for the development of the new mapping methodology. A proposal was submitted to the Syngenta Foundation with the title 'Enhancing Sustainable Land Management (SLM) and its Local and Global Impacts'. A letter of agreement for the production of TerrAfrica guidelines for best bet SLM technologies and approaches for SSA was signed with FAO.

Translation of 'where the land is greener' into Spanish and French. The translation to French and Spanish was outsourced. The translated versions shall be made available in pdf-format on the WOCAT-Website.

Objectives / Expected results	Activities ¹	Major global activities planned for November 2007 – October 2008	Review 2008: Achievements January 2008 - October 2008
<p>1) Knowledge about SWC and SLM</p> <p>Support (backstopping) for the production of outputs at national and regional level. Analysis and synthesis regarding emerging global issues.</p>	<ul style="list-style-type: none"> • support the production of national overviews • produce dissemination materials: Use of WOCAT (posters, pamphlets, videos) • develop a world map on the major SLM measures • enlarge the number of documented and evaluated SLM technologies and approaches in the global database • assess / analyse SLM knowledge gained through WOCAT and show their contribution to global issues • promote and support the establishment and operation of national peer review panels to ensure and enhance the quality of the information <hr/> <ul style="list-style-type: none"> • compile an inventory of global prototype technologies (covering the spectrum according to WOCAT SLM categorization system) • produce prototypes of conservation maps at different scales, for different AEZ/continents. • analyse successful technologies on their applicability for different natural and human environments • develop WOCAT label and standards 	<ul style="list-style-type: none"> • improve dissemination of 'where the land is greener' (lessons learnt) and capitalize from the knowledge about SLM in it ✓✓ • support and backstopping to the production of national overview books ✓✓ • produce of dissemination materials upon request • update and improve world map ✓ • add quality assured Ts and As, expand database ✓ • support national peer review panels and enhance quality of the information ✓ • finalising the WOCAT strategy Annex activities 	<ul style="list-style-type: none"> • proceedings WWSM12 Philippines, Nov 2007 • position paper on WOCAT and adaptation to climate change • inception note TerrAfrica guidelines for best bet SLM technologies and approaches in Sub Saharan Africa • participation of CDE/WOCAT in UNCCD Interagency taskforce and provide inputs regarding knowledge management • further promotion of 'where the land is greener' at conferences e.g. ICRD July, 2008 in Berne, ISCO May, 2008 in Budapest, CSD (conference on sustainable development) May, 2008 in New York • backstopping of publications and overview books in Ethiopia (Ethiocat Overview book), Nepal (HIMCAT factsheets released in April 2008) • database was expanded with new Ts and As from Togo, India, Ethiopia, Spain
<p>2) Tool (and method) development</p> <p>Additional and enhanced tools for exchange of knowledge and decision support developed</p>	<ul style="list-style-type: none"> • elaborate questionnaire modules on issues like watershed management, poverty alleviation, carbon sequestration and other upcoming important issues • further develop and adapt the SLM categorization system to include newly integrated issues of the revised questionnaires • make available prototype of overview books (guidelines, templates) 	<ul style="list-style-type: none"> • revised QT and QA in English, French and Spanish ✓✓✓ • progress in module formulation ✓✓ • develop standard Questionnaire Light ✓ • adapt categorization system ✓✓ • further develop and improve Decision Support Tool (evaluation / assessment) ✓✓ • adapt database to recent developments ✓✓ • WOCAT-LADA QM tested, revised QM for 	<ul style="list-style-type: none"> • revision of QT and QA finished in March 2008, questionnaires available in English, French and Spanish • standardized 4 page and 2 page (light) summary format based on the basic WOCAT questionnaires • first draft version of a watershed module • technology and approach inventory table for world map on SLM technologies as well as a quick survey of technologies and approaches already applied in a region

Objectives / Expected results	Activities ¹	Major global activities planned for November 2007 – October 2008	Review 2008: Achievements January 2008 - October 2008
	<ul style="list-style-type: none"> • develop tools to assess SLM technologies / approaches / and their spread with regard to global conventions and MDGs • develop enhanced data analysis and evaluation tool -> decision support tool (validation/evaluation of SLM, planning of SLM) 	<p>WOCAT?? ✓✓</p> <ul style="list-style-type: none"> • further advance mapping system (e.g. new software) ✓✓ • carry forward online database system ✓✓ • backstopping, training and data collection/reviewing depending on requests ✓✓✓ 	<ul style="list-style-type: none"> • finalized WOCAT-LADA mapping methodology and testing in LADA pilot countries and within CDE/WOCAT through MSc studies • categorization system adapted to include global issues and to the WOCAT-LADA mapping tool • online WOCAT address database finished in June 2008 and accessible on the WOCAT website
	<ul style="list-style-type: none"> • adapt database to new questionnaire developments (in new online software) • advance mapping system (new software/mapping tool in cooperation with FAO/UNEP to incorporate GIS/RS as well as expert knowledge on spatial distribution of degradation and conservation) • develop new database system (new software), including feedback mechanism for quality assurance • build an interactive data entry, viewing and updating system • develop holistic methodology including (a) SLM identification through stakeholder workshops, (b) SLM documentation and evaluation with questionnaires and (c) comparative analysis of SLM options with the help of a decision support tool • develop method and identify indicators for local level assessment (jointly with University of East Anglia, FAO/ UNEP/ UNU/ GEF/ UNDP) • develop guidelines for documentation, evaluation and use of SLM knowledge (also for global and national review panels) • set up training modules on SLM knowledge management using WOCAT tools 	<ul style="list-style-type: none"> • advance WOCAT in research and education (DESIRE: holistic methodology, students studies for testing,.....) ✓✓ 	<ul style="list-style-type: none"> • online database on SLM approaches under development –(finished by the end of 2008) • input application of mapping database finished, retrieval and display function under construction • planning of new WOCAT web applications based on a CMS structure • DESIRE-WOCAT decision support methodology further developed and tested in DESIRE study sites • local impact assessment and monitoring tool under development

Objectives / Expected results	Activities ¹	Major global activities planned for November 2007 – October 2008	Review 2008: Achievements January 2008 - October 2008
<p>3) Information sharing and networking</p> <p>WOCAT Network enhanced and consolidated</p>	<ul style="list-style-type: none"> • strengthen partner in the use of WOCAT • add new partners and consortium members in SDC priority regions where WOCAT is not yet well established. • sponsor participation of WOCAT partners at WWsMs to enhance exchange, contacts and cooperation between different countries • participate in International Conferences and meetings to promote WOCAT (eg at events of UNCCD, IUSS and ISCO; LADA) • integrate WOCAT in environmental and development processes at the global (UNCCD, UNCBD, UNFCCC, LADA) and at the national / regional level (government, NGO and bilateral projects). Give special attention to SDC priority countries • continue and enhance the WOCAT e-mail list and newsletter • establish and maintain links to other networks • regional / international exchange visits 	<ul style="list-style-type: none"> • use WOCAT Strategy and Strategy Annex 'activities' documents to address partners and potential collaborators including a solid funding strategy to address donors ✓ • expand within existing WOCAT countries / regions, new regions ✓✓ • WOCAT in LADA and other multilateral organisations ✓✓ • strengthen link with LADA pilot countries ✓✓ • WOCAT in Mongolia, SDC priority region, strengthen link to SDC priority countries ✓✓✓ • use WOCAT in EU-DESIRE project (IP Desertification) ✓✓✓ 	<ul style="list-style-type: none"> • workshops and conferences attended: European Geosciences Union (EGU) meeting April, 13 – 18 in Vienna; ISCO conference 18. – 23. May in Budapest; ICRD conference 2. - 4. July in Berne; 2nd General DESIRE-Meeting 5 – 13 January in Cape Verde, West Africa • new initiatives in Ghana, Madagascar using the WOCAT tools –, new possible new partner also in Cuba and Myanmar (Afghanistan, Bhutan through ICIMOD) • cooperation with international organizations and programmes; further enhanced with the request of the UNCCD interagency taskforce and TerrAfrica • promotion WOCAT through LADA pilot countries (Argentina, Senegal, Cuba) strengthened • link with Mongolia further strengthened with a training workshop in May 2008 and ongoing backstopping of activities • link to institutions and networks dealing with SLM and adaptations to climate change (eg SDC, INFRAS, ALM, sustainet) • WOCAT in EU-DESIRE project
	<ul style="list-style-type: none"> • improve platforms for communication to facilitate contacts and knowledge sharing between WOCAT partners • add new partners and consortium members in regions where WOCAT is not yet well established. 		

Objectives / Expected results	Activities ¹	Major global activities planned for November 2007 – October 2008	Review 2008: Achievements January 2008 - October 2008
<p>4) Research, training and education</p> <p>Partners trained to run WOCAT programme in their countries and regions. Use of research to support WOCAT's mission and develop tools and outputs</p>	<ul style="list-style-type: none"> conduct additional international 'Training for National Trainers / Facilitators' workshops provide support and expertise for additional national and regional initiation and training workshops, upon request from national / regional institutions facilitate / assist in links to research (eg DESIRE, COST, NCCR) publish in appropriate journals 	<ul style="list-style-type: none"> contribute to LADA training workshops (Tunisia,) ✓ conduct regional mapping training workshop (??? ICIMOD, India, China) ✓✓✓ WOCAT in education: Master / PhD studies, lectures and field courses ✓✓✓ follow-up workshop to the IRHA workshop to adapt tools/ method to better fit the rainwater harvesting needs training modules??? ... 	<ul style="list-style-type: none"> training workshop on the documentation and dissemination of SLM technologies and approaches using WOCAT tools in Ulaan Baatar, Mongolia from 26 – 31 May 2008 WB3 training workshop in Bari, Italy from 30 March – 5 April 2008 MSc-studies carried out in Switzerland and Tajikistan using new WOCAT-LADA mapping methodology supervision of BSc-studies within COST and WOCAT
	<ul style="list-style-type: none"> promote and provide supervision for MSc, PhD thesis addressing knowledge gaps develop training modules, manuals and teaching material for universities and extension services 		<ul style="list-style-type: none"> field courses in sustainable land management with MSc and BSc students from the University of Berne in March 2008 contribution to University course 'Research Methodology in Sustainable Land Management' – first semester 2008 joint research proposal within Sino Swiss for a collaboration with China training workshop and field visit in Ethiopia, 25-30 August for knowledge management and strategies for up scaling documented practices SWALIM workshop 8 -12 September 2008 in Nairobi, Kenya Mapping training workshop 16-19 September 2008 in Pretoria, South Africa
<p>5) Basic enabling activities at the global level</p> <p>Keep the WOCAT programme and network running at a basic level</p>	<ul style="list-style-type: none"> maintain and update global DB organize one international WOCAT Workshop and Steering Meeting (WWMS) per year followed by proceedings produce newsletter (half-yearly, with active participation of national/regional initiatives) enhance e-mail communication and mailing list (WOCAT-L) keep website up-to-date build up a pool of trainers and trained specialists coordinate programme, and maintain 	<ul style="list-style-type: none"> update global database ✓ organize WWMS13 ✓✓✓ support and coordinate TF meetings ✓✓ produce newsletter ✓✓✓ backstopping and e-mail communication ✓✓✓ update website ✓✓✓ offer training upon request ✓✓ programme coordination ✓✓✓ find new donors ✓✓ update promotion material using new visual identity 	<ul style="list-style-type: none"> global database adapted to structure of new QT and QA WOCAT address database online and updated organization of the 13th WWMS in Bern/Gwatt, Switzerland from 20 – 25 October organization of the WOCAT symposium on 'Promoting Sustainable Land Management (SLM) for its Local and Global Impacts', Monday 20 October in Bern organization of 'Impact monitoring' TF meeting from 16 – 18 October 2008 in Bern Two WOCAT newsletters published June 2008 and by the end of 2008 current up-dating of WOCAT website intense email communication and backstopping

Objectives / Expected results	Activities ¹	Major global activities planned for November 2007 – October 2008	Review 2008: Achievements January 2008 - October 2008
	good relations to donors <ul style="list-style-type: none"> • update brochures, flyers, etc. (promotion of WOCAT) 		of many different WOCAT partners throughout the year <ul style="list-style-type: none"> • search for additional funding: proposal to Syngenta Foundation, TerrAfrica, UNCCD
	<ul style="list-style-type: none"> • update WOCAT CD-ROM (every 3-4 years) • invest in finding new donors 		

¹ **Activities** → first group describes activities done with NRE-CDE contributions (grey shaded), second group depicts activities that are/ could be done using other sources of financial contribution

1.1.2 WOCAT Secretariat (administrative and logistic)

Main activities:

- Handling of sale and distribution of overview book
- Reactions to e-mails and requests for brochures, CD-ROMs (CD-ROM v.3, Video)
- Organising of WOCAT Workshop and Steering Meeting in Switzerland
- Organising the symposium on 'Promoting Sustainable Land Management (SLM) for its Local and Global Impacts'
- Organising the TF-meeting on 'impact monitoring' in Bern, Switzerland
- Production of WOCAT Workshop and Steering Meeting proceedings
- E-mails: Main persons involved in maintaining and enhancing the contacts and reacting to requests are: Franziska Jöhr, Godert van Lynden, Rima Mekdaschi Studer, Gudrun Schwilch, Christine Hauert and Hanspeter Liniger. Sharing of information amongst the different WOCATeers does not necessarily involve the secretariat. There is still a need to decrease the support from the secretariat and to increase involvement of the regional and national institutions.

1.1.3 Funding

a) SDC

- The annual budget is about USD 441'000 (CHF 432'000 (date of exchange rate 1.7.08)) for the current phase 2008-2011
- Impact Monitoring taskforce (proposal Central Asia): USD 39'300 (CHF 40'000)
- Remittance of overdraw of budget phase 2005-2007: USD 16'500 (CHF 16'834)

b) FAO-LADA

WOCAT has received a first payment of 17'000 USD in 2007 from FAO – LADA based on a contract for a financial contribution of 57'000 USD (~ 70'000 CHF) for the lead of the national land degradation and conservation assessment. The rest of the payment (37'500 USD) was transferred in the second half of 2008. The financial end report of the contract has been approved by FAO – LADA.

c) FAO

FAO has agreed to a financial contribution of 20'000 USD for the development of the on-line database on SLM approaches. The final report has been sent to FAO and the second rate of the payment can be expected in the beginning of 2009.

d) SDC Project for Coping with Desertification in Mongolia 2007 – 2013

USD 13'000 for entry phase of component 4: strengthening the development and application of proper technologies (April 2007 to April 2008); about USD 280'000 (CHF 300'000) for the whole phase of component 4 up to 2012.

e) TerrAfrica guidelines for best bet SLM technologies and approaches

A contract with FAO on a financial contribution of 90'000 USD for the development of the guidelines for best bet SLM technologies and approaches in SSA was signed by the end of 2008.

f) Other donors

- EU-DESIRE project: about USD 400'000 (EUR 300'000) for 5 years (2007-2012)
- EU-COST Switzerland research project: about USD 256'000 (CHF 295'000) for 3 years (1.4.05 – 31.3.08) for 2 PhD and several master studies approved and an additional USD 115'000 (CHF 90'000) for supervision.

g) Sales of 'where the land is greener'

about USD 2'600 (CHF 2'557.70)

Plans and achievements with respect to funding

- Analyse monitoring sheets for next WWSM to show impacts and importance
- Promotion of WOCAT through LADA pilot countries and DESIRE study sites

Financial contributions 2008

Financial Contributions to WOCAT between 09/05 and 10/08 (in USD)

	10/06-10/07			09/92-11/07	11/07-10/08			09/92-10/08
	Cash	In-kind	Total	Total	Cash	In-kind	Total	Total
Bangladesh (CHTDB)	200	50	250	15'050	2'000	50	2'050	17'100
CDE	1'800	0	1'800	71'800	1'400		1'400	73'200
Central Asia CAMP			0	60'640			0	60'640
China (ADB/ GEF-national level)			0	89'100			0	89'100
China (FJSWCO, ADB/ FSWCC)			0	69'000			0	69'000
China (SWCMC)	250'000	100'000	350'000	396'200	1'500		1'500	397'700
CIS – Vrije Universiteit	1'350	0	1'350	126'350			0	126'350
CTA			0	26'500			0	26'500
DANIDA			0	355'700			0	355'700
DED (Niger)			0	6'000			0	6'000
Ethiopia (ESAPP)	12'000	0	12'000	59'735			0	59'735
Ethiopia (MoA, WFP)	0	2'800	2'800	50'900	10'000	3'000	13'000	63'900
FAO (LADA, Asia and the Pacific)	80'300	25'100	105'400	1'074'640	63'000	2'400	65'400	1'140'040
Ghana (VECO)					3'000		3'000	3'000
GTZ (OSS)			0	243'000			0	243'000
IBSRAM			0	5'500			0	5'500
ICARDA				35'000			0	35'000
ICIMOD		15'000	15'000	70'500	16'000	2'000	18'000	88'500
ICRISAT (Niger)			0	31'000			0	31'000
IDRC			0	85'000			0	85'000
India (ORISSA)	26'925	0	26'925	77'925	0	25'030	25'030	102'955
India (WDCU)			0	75'000			0	75'000
Indonesia (ASOCON)			0	104'028			0	104'028
Indonesia (GOV.)				63'028			0	63'028
INSAH (CILSS)			0	10'000			0	10'000
ISRIC		35'000	35'000	300'000		40'000	40'000	340'000
Kazakhstan				25'150			0	25'150
Kenya (MoA-SWC)			0	20'500			0	20'500
Kyrgyz Rep (Camp Alattoo, UNCCD-GTZ/ OECD)	45'000	5'000	50'000	101'700			0	101'700
Mongolia (SDC)	19'000		19'000	19'000	37'688		37'688	56'688
Morocco (MADRPM, DESIRE)	1'500		1'500	47'500	4'600	700	5'300	52'800
Nicaragua (PASOLAC/ GTZ/ LA)			0	74'000			0	74'000
Nigeria (Uyo University)	500	2'000	2'500	2'500	700	1'000	1'700	4'200
OSWU			0	4'000			0	4'000
Pakistan (IC)				6'500			0	6'500
Philippines (BSWM/ UPLB/ RSCU/ RELMA)	13'000	5'800	18'800	82'050	6'000	1'800	7'800	89'850
SADC			0	6'000			0	6'000
SDC	359'450		359'450	3'247'950	441'100		441'100	3'689'050
SDC (CA, IRHA, COP8)	5'400		5'400	69'000			0	69'000
SDC (Impact Monitoring)					32'900	0	32'900	32'900
Serbia (Belgrade University)	15'000	5'000	20'000	42'000	24'000	5'000	29'000	71'000
South Africa (DoA, NDA/ ARC- SOWAP (Syn.)	29'500	10'000	39'500	384'246	30'500	56'000	86'500	470'746
Syngenta Foundation			0	89'700			0	89'700
Tajikistan			0	131'500			0	131'500
Tanzania (MAFS-SCLUPU)	300	1'700	2'000	23'500			0	23'500
Thailand (LDD)			0	7'890			0	7'890
Thailand (LDD)			0	51'500			0	51'500
Togo (University of Lomé)	4'550	1'817	6'367	6'367			0	6'367
UNEP			0	100'000			0	100'000
WASWC				15'500			0	15'500
Total	865'775	209'267	1'075'042	8'246'149	672'388	136'980	809'368	9'055'517

Tentative budget/ expenditures global WOCAT (CDE) 2008

WOCAT Phase 6 1.1.08 - 31.12.11 (tentative)							WOCAT Phase 6 1.1.08 - 31.12.11: Overview							
Overview of funds from SDC and other donors: Budget and expenditures							Overview SDC and other donors							
Kto	Description	Budget 08	Previous	Expend.	Total	Saldo	Budget	Previous	Expend.	Previous	Expend.	Previous	Expend.	Expend.
		1.1.08-31.12.08	Expenditures	1.7.08-31.12.08	1.1.08-31.12.11	Jahr 2008	1.1.08-31.12.08	Expenditures	1.7.08-31.12.08	Expenditures	1.7.08-31.12.08	Expenditures	1.7.08-31.12.08	1.1.08-31.12.11
		SDC	SDC	SDC	SDC	SDC	Overall	SDC	SDC	LADA_FAO	LADA_FAO	TerrAfrica	TerrAfrica	Overall
1	Personnel	300'000.00	177'666.25	189'835.40	367'501.65	-67'501.65		177'666.25	189'835.40	51'491.25	13'065.00	2'975.00	25'120.00	460'152.90
1	Coordination		76'218.75	119'185.40				119'185.40		13'065.00			25'120.00	
11	Project work		99'098.75	58'672.50				58'672.50						
13	Travel time		330.00	0.00				0.00						
15	Backstopping		2'018.75	11'977.50				11'977.50						
2	Travel	20'000.00	1'942.40	5'691.50	7'633.90	12'366.10		1'942.40	5'691.50	4'710.00	0.00	0.00	0.00	12'343.90
21	Travel expenses	20'000.00	1'942.40	5'691.50				5'691.50						
3	Materials	31'000.00	6'589.99	4'634.57	11'224.56	19'775.44		6'589.99	4'634.57		0.00	0.00	0.00	11'224.56
31	Material		6'589.99	4'634.57				4'634.57						
4	Mandates	81'000.00	-6'823.02	86'636.01	79'812.99	1'187.01		-6'823.02	86'636.01		0.00	0.00	0.00	79'812.99
41	International Workshops, Steering Meetings		-13'494.75	68'983.40				68'983.40						
45	Seedmoney, support national initiatives		6'671.73	17'652.61				17'652.61						
5	Impact Monitoring Central Asia	40'000.00				40'000.00		0.00	0.00					
6	Distribution Books		-2'557.70	-483.85	-3'041.55	3'041.55		-2'557.70	-483.85					-483.85
	Total 1-6	472'000.00	176'817.92	286'313.63	463'131.55	8'868.45		176'817.92	286'313.63	56'201.25	13'065.00	2'975.00	25'120.00	560'492.80
	GRAND TOTAL	472'000.00	176'817.92	286'313.63	463'131.55	8'868.45		176'817.92	286'313.63	56'201.25	13'065.00	2'975.00	25'120.00	560'492.80

1.1.4 Publicity

- WOCAT on the Internet (www.wocat.net): see statistics below
- WOCAT newsletter (2x) and contributions to WASWC newsletters
- WWSM13 proceedings 2008
- Meetings and workshops:
 - 2nd general DESIRE-Meeting 5 – 13 January 2008 in Cape Verde, West Africa.
 - DESIRE WB leaders' meeting 31 March – 3 April 2008, Bari, Italy and WB3 training for study site facilitators (DSS).
 - European Geosciences Union (EGU), General Assembly, 13 – 18 April 2008, Vienna, Austria. Participation and presentation of DESIRE/ WOCAT methodology on appraising and selecting SLM strategies.
 - Side event at CSD16 for the 'Land, desertification and drought: local and national level impact assessment', 5 - 10 May 2008, New York, USA.
 - 15th ISCO conference 18 – 23 May, Budapest, Hungary. Participation and presentation of paper on 'DESIRE/ WOCAT methodology on appraising and selecting SLM strategies'.
 - Meeting of Inter-agency Task Force (IATF) for the revision of the reporting guidelines under the United Nations Convention to Combat Desertification (UNCCD), 26 – 27 June, Bonn, Germany.
 - International conference on research and development (ICRD), 2 – 4 July in Bern, Switzerland. Presentation of 3 posters.
 - SWALIM workshop, 9-12 September Nairobi, Kenya
- Posters:
 - 2 WOCAT and 1 DESIRE poster at ICRD conference 2 – 4 July 2008, Bern, Switzerland. Poster 1: 'where the land is greener – Rewarding Investments in Documenting and Evaluating SLM Knowledge'. Poster 2: WOCAT – Use of Knowledge. Poster 3 (DESIRE): Appraising and Selecting SLM Strategies - A methodology based on stakeholder participation and global best practices.

Papers presenting WOCAT:

- [Position paper](#) to climate change: 'Use of WOCAT tools and network to prepare for SLM adaptation to climate change – identification of conservation technologies suitable for climate change'.

- Book chapter in:

International Water Management Institute (IWMI) publication: 'Safeguarding Water Resources by Making the Land Greener: Knowledge Management through WOCAT', Hanspeter Liniger and William Critchley

1.1.5 WOCAT website statistics

Compiled by Gudrun Schwilch

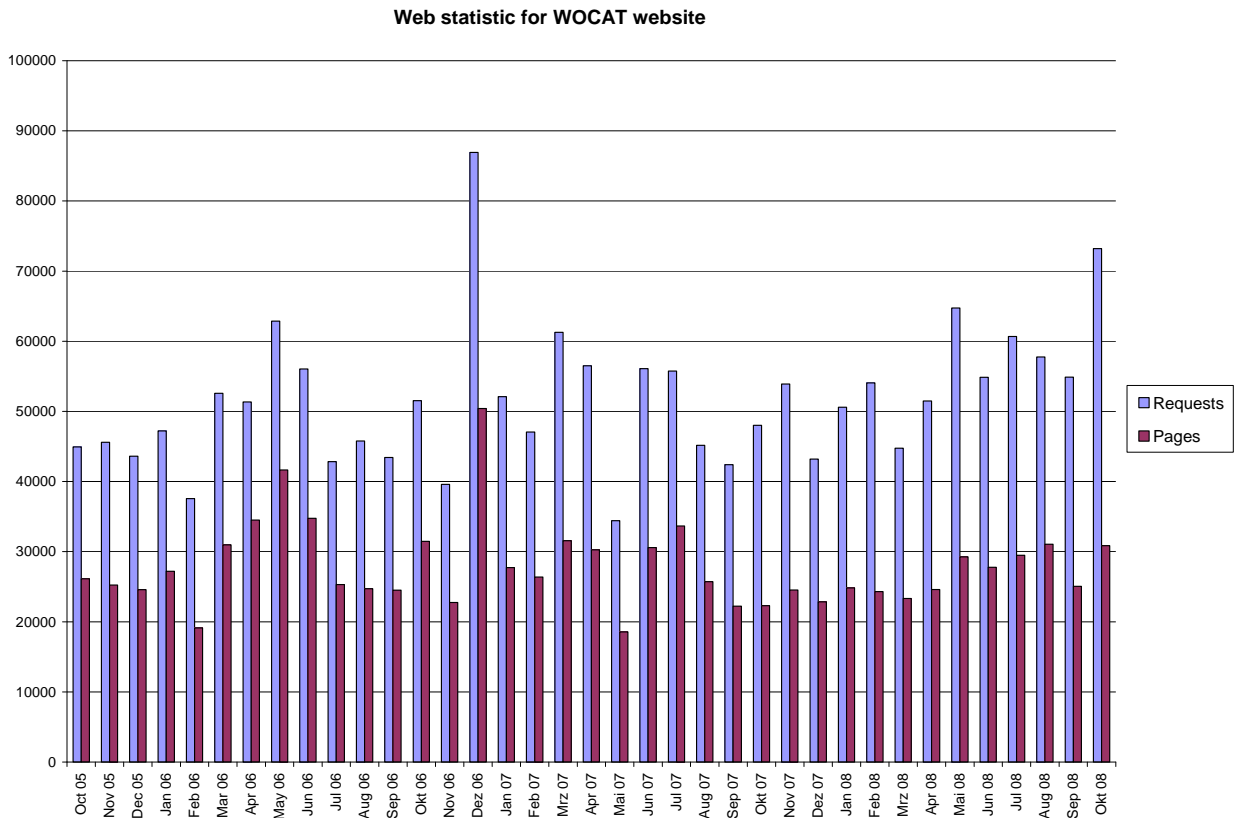
See also <http://www.wocat.net/WOCATlog08.htm> (best in Mozilla Firefox).

Website statistics Nov. 07 to Oct 08 (12 months):

- Total requests: 664,002 (1,814 per day). 2007: 623,664 (1,713 / day).
- Total pages: 317,870 (868 / day). 2007: 341,204 (937 / day);
- Distinct hosts: 23,081 (number of different computers). 2007: 21,488;
- Number of hits generally remaining on the same level as in previous years. Highest peak in October (maybe due to Symposium?).

These statistics needs to be interpreted with some caution. The number of requests does not reflect the number of visitors because each graphic file on a web page counts as one request. On the other hand, certain visits are not counted, if the user has visited this page before and it is still in his cache and not refreshed. Or the Internet Service Provider's (ISP) cache has saved it, because somebody else from the same ISP has looked at that page recently. The proportion of requests retrieved from the cache can make up to 50%, so half of the user's requests are not counted.

Further reading on www.analog.cx/docs/webworks.html.



Most requested pages

English:

- Home (default.asp) with 131,264 requests is the absolute leader of the requested pages! But this is rather pointless as it only indicates that many people get to the WOCAT home page but maybe not any further.
- Database (databs.asp): 3,583
- Overview book (overviewbook.asp) with 3,522 hits and Overview book download page (overviewbookpdf.asp) with 3,122 hits (!)
- World map (worldmp.asp): 3,057
- Links (links.asp): 3,029
- Books (books.asp): 2,701
- Introduction to WOCAT (about1.asp): 2,644
- Questionnaires (quest.asp): 2,621

French:

- Accueil / Home (default_F.asp): 1,634
- Carte mondial / World map (worldmap_F.asp): 1,261
- Bases de données / database (databs_F.asp): 1,155

Spanish:

- Inicio / Home (default_S.asp): 1,622
- Últimas noticias (newslat_S.asp): 1,240
- Mapa global / World map (worldmap_S.asp): 1,061

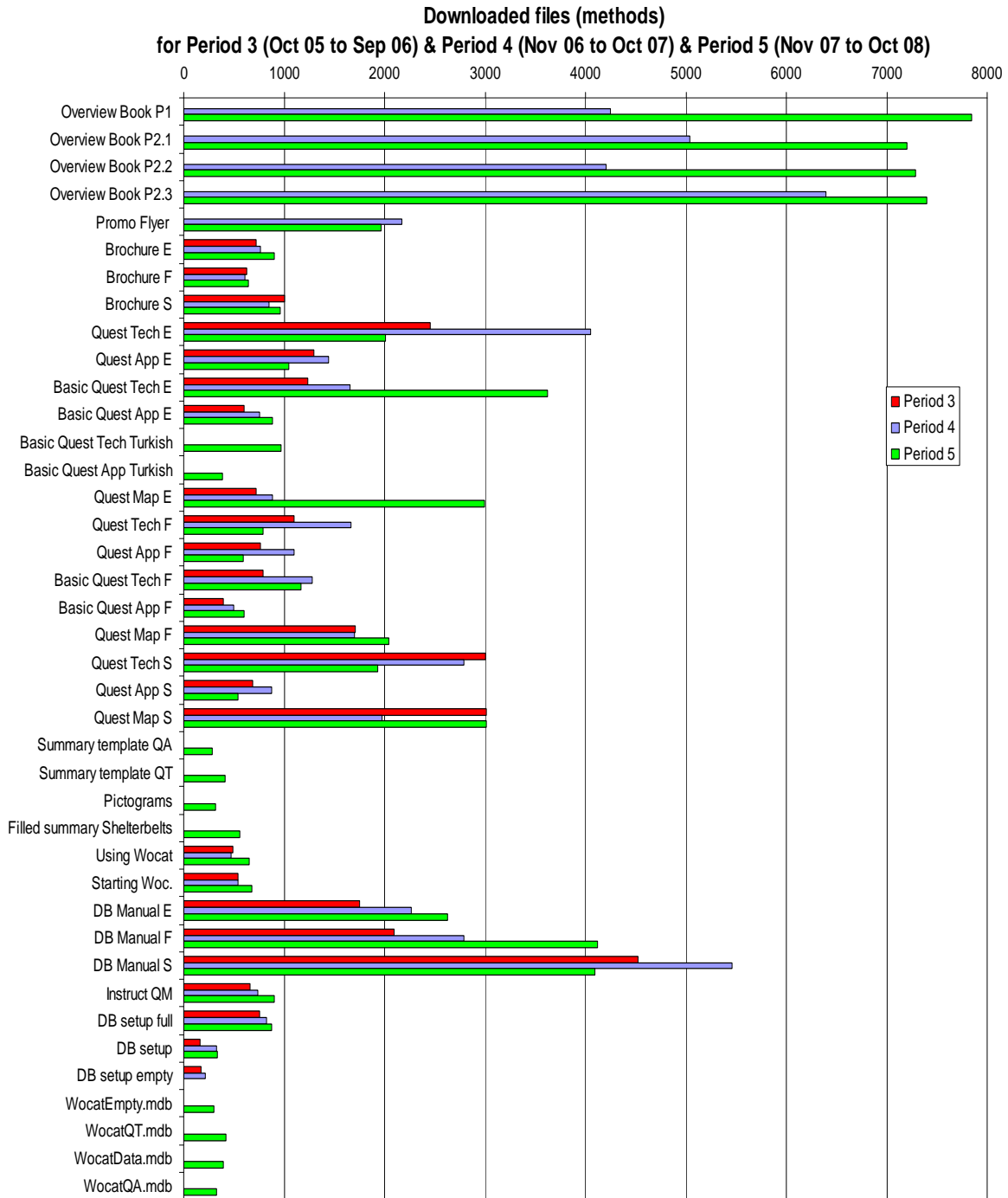
The most frequently downloaded files:

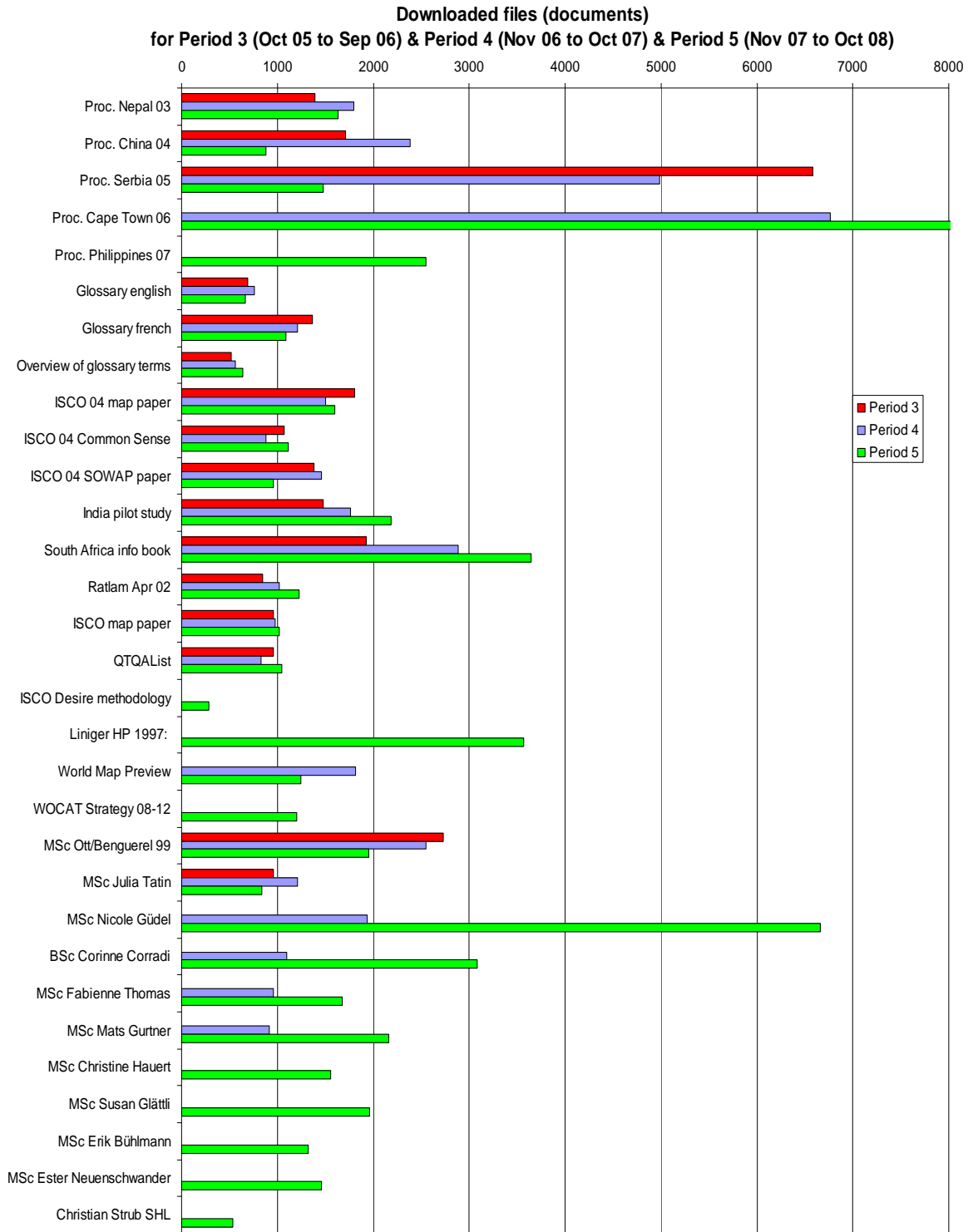
- The report from the WWSM11 in Cape Town, 2006 (wwsmcapetown06.pdf), with 8,169 requests.
- On the second place (7,843 requests) is part 1 of the book 'where the land is greener', followed by the other parts (all above 7,100 downloads). We only provide a low resolution pdf, and with suppressed printing and text copying mechanism.
- MSc Thesis Nicole Güdel (in German only!): 6,658
- Database manual: Spanish 4,093, French 4,078 and English 2,626

– South Africa Info Book: 3,642 (2007: 2,883)

Google Earth:

The WOCAT technology and approaches locations shared with the Google Earth community were rated 4 stars (out of 5) by the Google Earth moderators and viewed by almost 4,000 users.





1.1.6 Global Management review - ISRIC

Report by Godert van Lynden (ISRIC activities 2007-2008.ppt)

Assisted in general coordination of the network

- 2 WOCAT Newsletters (December 07, June 08)
- Maintenance of WOCAT-L (mailing list)
- Regular feedback on Email requests
- Co-organising WWSM13
- Participate in tools development
- Contribute to QM revision

- Presentation for and enhancing contacts with Wageningen University & Research WUR (ESWC group)
- PR activities and exploring additional funding opportunities

Participated in meetings and workshops

- International Conference on Research for Development ICRD (Bern, July 08)
- SWALIM workshop (Nairobi, September 08)

Represented/promoted/used WOCAT within other projects:

DESIRE

- WOCAT mapping component a major component in DESIRE WB1
- 2nd DESIRE plenary meeting (Cape Verde, January 08)
- 2 DESIRE WB leaders meetings (Bari, April 08; Leeds, September 08)

LADA

- QM meeting Pretoria (September 08)

1.1.7 Global Management review - FAO

Report by Sally Bunning and Wolfgang Prante (WOCAT- LADALocal.ppt)

FAO - WOCAT collaboration is managed in FAO through the Natural Resources and Environment Department and the Agriculture Department and to some extent through the FAO Regional offices.

Progress over the last year

1) LADA-WOCAT National Mapping for Land Degradation/ Improvement Assessment: LADA and WOCAT have been collaborating in the development of the national mapping tools and process, through LADA contract with WOCAT and in kind collaboration from both partners. In-kind collaboration includes linkage with DESIRE programme in which WOCAT is involved and inter-linkages on TerrAfrica and other SLM related processes e.g. CSD, UNCCD.

The development of the LADA-WOCAT tools has included participation in workshops for development and testing of the tools - QM mapping questionnaire and online database - in Rome and South Africa. The commitment and support of South Africa in testing and using the process throughout the country is highly appreciated, see presentation by Lehman Lindeque, LADA-South Africa, during the one day WOCAT Symposium.

During the Tunisia national land degradation assessment workshop, problems were found in operationalising the database so the work had to be done on a hard copy version. However, the system has since been improved. The Tunisia process also showed the importance of using an interdisciplinary and decentralised expert process, so the Tunisia process was continued at provincial level. The need for a simple offline version in an easily accessible data system e.g. Excel/Access was raised as a complement to the online system in case of problems with the data hardware/software.

2) LADA Local: WOCAT contributed in the first workshop hosted by the University of East Anglia, Norwich, UK, for development of LADA-Local manual and process. The use of WOCAT QT and QA will be important tools for ensuring that LADA-L includes assessment of land improvement as well as degradation. This will require a section in the LADA-L manual to show how these WOCAT tools can be used to complement the current toolbox (transects, soil erosion, soil properties, vegetation, water and SL and ES analysis).

The LADA-L manual will be revised building on experiences in the Tunisia and China training workshops to provide a more balanced manual that is relevant for all dryland situations. The transect and community mapping process should include an overview of all types of degradation in drylands (severe, moderate, slight, none; and extent) and all SLM measures in the local assessment area. The soil, vegetation and productivity tools should address sandy soils and include wind erosion and livestock productivity. The assessment should be backed up, where possible, by more thorough work to complete WOCAT QT and QA questionnaires for the key SLM measures in the local assessment area (LAA).

The indicators identified for LADA-L are relevant for the WOCAT impact monitoring process.

1.2 Activities at the national/ regional level

1.2.1 ICIMOD – HIMCAT

Report by Sanjeev Bhuchar (ICIMOD_progress 2008.ppt)

The HIMCAT website was continued in 2008 and up to date 93 members are subscribed. However, the site is still not too active yet and the contributions from members are rather limited. In spring 2008 the 2nd HIMCAT newsletter has been published on “Erosion control measures and activities” and distributed to the members over the website.

NEPCAT fact sheets on “Natural Resource Management approaches and technologies in Nepal” containing 30 technologies and approaches which have been compiled in collaboration with SSMP Nepal and ICIMOD have been published in April 2008. 1000 hard copies and 800 CDs were produced. End of April a NEPCAT fact sheet launching event took place where key partners from NGOs, INGOs, Departments, etc. were invited. The hard copies of the NEPCAT fact sheet are already out of stock after 5 months!

A WOCAT module of 3 hours was integrated in ICIMOD’s 2nd international training on “Low Cost Soil and Water Conservation Techniques and Watershed Management Activities, LCSWC” in Nepal, April 2008 and in the 1st national training on LCSWC in Bamyan in Afghanistan.

The BHUCAT initiative (Bhutan) was started in August 2008 and a first 6 day WOCAT training was held to 23 participants. In Afghanistan a 1 day WOCAT orientation workshop was held in August 2008 and the initiation of an AFGCAT initiative is planned for 2009.

The ICIMOD team contributed to WOCAT task forces over the year. A major contribution was provided to the watershed module. The up-dating of the database to the new questionnaire was started.

The following planned activities got delayed or did not materialise:

- The planned activities for the GTZ funded project in Tibet got delayed due to denial of travel permission and visas because of the Olympic Games in summer 2008.
- The planned activity to include WOCAT tools in curriculum of Kathmandu University and Tribhuvan University

1.2.2 BANCAT (Bangladesh)

Report sent by Sudibya Khisha

- 10 different QT’s and QA’s were documented during the last year. The documentation was done in different agro-ecological zones.
- The WOCAT tools were popularized to students and teachers of different universities in Bangladesh. In an orientation workshop organized by BANCAT, WOCAT tools were presented to 17 students and supervising teachers of Institute of Forestry and Environmental Sciences of Chittagong University (IFESCU) and Soil, Water and Environment Department (SWED)/ Institute of Development Studies of Dhaka University/ Shahjalal University of Science and Technology, Sylhet including one NGO leader. In another orientation workshop organized by SRDI, 70 SRDI officials were introduced to WOCAT tools.
- Different workshops and training were conducted: 1) training workshop on degradation of upland watershed in Bangladesh, 2) orientation workshop on WOCAT tools for soil scientists of Soil Resource Development, 3) orientation workshop on WOCAT tools for supervising teachers and students of different Universities in Bangladesh.
- Members of the BANCAT team attended three seminars and workshops at SRDI, IFESCU and ICIMOD.
- The BANCAT webpage was regularly up-dated.
- The collaboration with ICIMOD has been further elaborated with a contract agreement on training and documentation for professional capacity building of teachers and students of different universities of Bangladesh.

1.2.3 India

Report by Niranjana Sahu (ORISSA_INDIA_2008.ppt)

The Orissa Watershed Development Mission (OWDM), under the Department of Agriculture, Government of Orissa, is the nodal agency responsible for implementation of various Watershed Development programmes and other SWC schemes sponsored by the Government and other donors. OWDM is currently implementing approximately 3000 watersheds. The aim of these watershed development projects is to conserve and manage natural resources and thereby improve the livelihoods of the communities residing in these watershed areas.

WOCAT activities during 2008

The OWDM further continued the use of WOCAT tools during 2008 and expanded to a new district i.e. Bargarh. A WOCAT working group was constituted to institutionalize the use of WOCAT in this district. Monitoring Specialist of the Capacity Building Team (CBT) was selected to coordinate the programme and Project Director (Watershed) was responsible for supervising the implementation of WOCAT.

WOCAT core group

To efficiently coordinate various activities with the District level, the 'WOCAT Core Group' was constituted involving the Project Directors (PD), Capacity Building Team members (CBT), Project Support Unit specialists (PSU), Project Implementing Team members (PIA) etc. Now WOCAT working groups have been formed in all the four WORLP project districts i.e. Bolangir, Nuapada and Kalahandi and Bargarh. The Monitoring & Evaluation specialist at the PSU coordinates these groups. The core groups plan and implement various activities to be undertaken under WOCAT as decided by the OWDM.

Capacity building

A two day training programme was conducted (17th -18th September'08) in Bargarh to build the capacity of team members so as to enable them to document the QT and QA. Following this a one day sensitization workshop was organized on 19th Sept'07 to create awareness among the project facilitators and Rural development professional. Accordingly one technology (Farm Pond in Farmer's Field) and one approach (Enhancing sustainability of dry land farming system through on farm water management) were documented.

Four capacity building events were organized for the land users (36 small and marginal farmers) in the field. This enabled the land users to get a holistic understanding of the technologies in terms of immediate and long term benefits, on-site and off-site impacts and the approaches that lead to implementation of the technologies.

Documentation of technologies and approaches

During 2008 one technology and one approach were documented in Bargarh district using WOCAT tools. The list of technologies and approaches that are to be documented was decided by the WOCAT core group and was briefed to the project staff during the training conducted in Sep'2008. Separate sub working groups were constituted for documentation of the technology and approach. These working groups coordinated the field work, collection of secondary data and data entry. The following are the technologies and approaches documented:

Benefits of using WOCAT in Orissa

WOCAT documentation process has been practised in Orissa since four years. During this period the land users as well as facilitators have got a process in hand which includes technical, social, economic and environmental impacts of a technology and an approach in accomplishing the tasks in implementing the technology. This has enabled the users to clearly bring out gaps in involvement of the community while implementing various SWC interventions in the watershed projects.

WORLP is currently undertaking an impact assessment of WORLP interventions both land based and non-land based. The adaptability and acceptability of the interventions have been emphasized while documenting the process elements contributing to impacts. The land users/facilitators have started integrating the production components into these SWC measures so that the livelihoods of the farm families are enhanced. The current study on impact of SLM in WORLP on climate change has provided inputs to think and strategize SLM interventions in future years.

1.2.4 Philippines

Report by Romeo Labios (PHILCAT_2007-2008.ppt)

WOCAT Promotion

- 1) Presentation of WOCAT materials to scientific conferences/workshops:
 - Paper presentation using WOCAT materials during the International Seminar on SWC and Dryland Farming at Yanling, Shaanxi, China from June 16-30, 2008
 - Technical briefings/presentations of SWC activities to Local Government Units (LGUs) through distribution of leaflets, flyers and CDs
 - Introduction of WOCAT to the Forestry Sector using WOCAT materials during the Forestry Sector Conference held on 15-16 September 2008 in Bohol, Philippines and through Society of Filipino Conference (SFF) convention held on 17-19 September 2008 in Bohol, Philippines
- 2) Use of WOCAT materials in education:
 - As reference materials in course curriculum in Soil Science, Agricultural Systems and Natural Resource Management
 - As reference materials in short training courses on Natural Resources Development Projects
- 3) Soil Conservation Month Celebration:
 - The month of June is declared Soil Conservation Month through launching of Soil Conservation Guided Farm projects in collaboration with Department of Agriculture-Regional Field Units (DA-RFUs), Local Government Units, SUCs and farmer-leaders/associations
 - WOCAT promotion through posting of streamers using WOCAT materials during the celebration of Soil Conservation Month through Department Order No. 16 Series of 2007 issued by the Secretary of Agriculture Arthur C. Yap declaring the month of June as “Soil Conservation Month”
- 4) Launching of Soil Conservation Guided Farm: Launched in March 12, 2008 in collaboration with the Local Government Unit (i.e. Provincial, Municipal and Barangay).
 - at Brgy. San Roque, City of San Jose del Monte, Bulacan:
 - It started at 10 hectares techno-demo and has an expansion area of another 10 hectares with 17 farmer-cooperators
 - Soil conservation technologies adopted and introduced (i.e. hedgerow system or contour farming and alley cropping) in the area
 - at Brgy. Duale, Limay, Bataan:
 - Expansion of guided farm project which was established in June 2007
 - The Samahang Magsasaka sa Kabundukan (SAMASAKA) of Brgy. Duale, Limay, Bataan is considered new adopters of SWC approaches and technologies which composed of 30 farmer-members

PHILCAT workshops and meetings

- PHILCAT training for inter-agency members: Conducted Training Workshop on the Use of WOCAT Database on November 19-21, 2007 and attended by 20 participants/ representative of PHILCAT inter-agency members.
- PHILCAT Committee members meetings conducted regularly
- Training of extension workers, academe, and farmer-leaders in June 2008.

Documentation of QA

Documentation of 1 SWC Approach “Soil Conservation Guided Farm Approach” is on-going

Other SWC Activities

Soil and Water Assessment of an Abandoned Copper and Pyrite Mine at Bagacay, Hinabangan, Samar for developing rehabilitation plan/strategy.

PHILCAT production of outputs

Overview and case study summaries: Soil and Water Assessment of an Abandoned Copper and Pyrite Mine at Bagacay, Hinabangan, Samar, was released in August 2008

Poster presentation ‘WOCAT as a Tool for The Assessment and Evaluation of Soil and Water Conservation Practices’, 27-28 February 2008

1.2.5 China - SWCMC

Report by Meng Lingqin (CHINA_SWCMC_2008.ppt)

Training in 2007 - 2008

A training workshop was conducted in Beijing in January 2007 with 68 participants from 23 provinces in China. The aim of the workshop was to introduce WOCAT's mission and WOCAT's tools. The training material was prepared in English and Chinese and 3000 brochures were compiled.

Data collection

One filled in a questionnaire about conservation measure of Buffer strips.

16 conservation measures were indentified:

- 7 conservation measures for control of soil erosion in sloping farmland
- 2 conservation measures for control of soil erosion in wasteland
- 7 conservation measures for control of gully erosion

Opportunities and challenge for the future

Opportunities:

- Conservation becomes a very important issue in the world.
- WOCAT has quite some experience in propagating its mission through the network of SWC specialists.
- WOCAT can efficiently manage existing knowledge with its methodologies and tools.

Suggestions:

- Convince government to provide more input.
- Compile and publish WOCAT lecture notes.

1.2.6 China – GEF

Report by Wang Yaolin (China GEF_2008.ppt)

PRC-GEF Partnership on Land Degradation in Dryland Ecosystems

GEF has established a partnership in land degradation prevention with China, aimed to reduce poverty, control land degradation, rehabilitate dryland ecosystems and conserve biodiversity in the country's western region. The Partnership is governed by a Country Programming Framework (CPF) covering a ten year period (2003-2012).

Project Nr 1 under CPF is strengthening the 'Enabling Environment and Building Institutional Capacity', implemented in 6 provinces, i.e. Xinjiang, Gansu, Qinghai, Ninxia, Shaanxi and Inner Mongolia in Northwest China. It consists of 6 components:

- (i) improving the policy, legal and regulatory framework;
- (ii) setting up a mechanism to strengthen institutional coordination at national and provincial levels;
- (iii) improving operational arrangements at provincial and county levels; building community-based pilot areas, and raising public awareness of all the stakeholders to boost their participation;
- (iv) building institutional capacity to improve the capacity on design, management of IEM (Integrated Ecosystem Management) projects ;
- (v) establishing an effective monitoring and evaluation system;
- (vi) CPF implementation arrangements including support to the coordination mechanism, donation, information-sharing and dissemination and so on.

Activities and Results

- Improvements of policy and regulation framework: A number of laws or regulations have been revised with IEM and promulgated at provincial level so far.
- Provincial Strategy and Action Plan for Land Degradation Prevention: The completed strategy and action plan for land degradation prevention has some unique features: participatory tools, legal improvements, and monitoring & evaluation.
- Totally 4 pilot areas were selected from 4 counties, i.e. Jingyuan, Anding, Kongtong, and Jingtai, distributed in different ecological zones. Efforts made in the pilot areas involve: training, demonstration on works, monitoring and evaluation, FFS.
- For monitoring and evaluation a system has been established. It includes 3 parts: 1) information-sharing mechanism 2) IEM Information Center for providing regular information and decision making 3) carrying out technology documentation by means of WOCAT.

- Public education on environmental protection has been carrying out at provincial, county and community levels in the form of training, lecture and student composition contest in schools.

WOCAT related activities

We cooperate with LADA in China in collecting and documenting 43 case studies on SWC, which cover the 9 provinces in north, west and east China. The 43 cases include: 1) Conversion of farmland to forest and grass from Inner Mongolia, 2) Inoculating *Cistanchis Caulis* on *Haloxylon ammodendron* from Inner Mongolia, 3) Living sand barrier from Inner Mongolia, 4) Mechanical sand barrier from Inner Mongolia, 5) check dam from Gansu, 6) Run-off retention on slope, 7) Silt precipitation dam, 8) Stone-mulching, 9) Air sowing to afforest, 10) Inter-cropping between trees and crops, etc.

Production of outputs

Of the 43 collected case studies, 27 are in the process of publishing in line with the WOCAT format in Chinese and English. It is named 'The Best Practices for Land Degradation Control in Dryland Areas of China'.

- Input: 350,000 RMB in cash.
- More than 27 experts, a number of project staff and consultants in-kind.
- Impacts: an increasingly number of technical staff from central, provincial and county levels become aware of WOCAT being an important platform for international exchange.



Biogas Digester

Jingyuan County of Gansu Province, China

By established facilities and use organic matter of animal manures, human waste, plant straw for anaerobic fermentation to produce inflammable biogas for uses of lighting, cooking with the residue liquid and dreg for high quality organic fertilizer.

The demonstration site is located at Jingyuan County of central Gansu Province, an arid county with annual rainfall 240 mm for rainfed agriculture. The vegetation cover of the county is 5.6% and the water and soil erosion affected area is 5359 square kilometers or 92.2% of total land area. The fragile ecological and serious land degradation made the locality a very poor place, short of fuel. Poverty and ecological degradation has formed a vicious circle. Energy scarcity problem that needs to be solved urgently is also a cutting point for curbing land degradation. Since 2000, with the support of relevant departments, biogas production technology has been introduced and extended in Jingyuan County. Due to its multiple functions in kitchen, toilet, animal house etc., it has obvious social, ecological and economic benefits. The technology is easy and the maintenance is simple, so the extension is quick.

The construction procedures: location identification, digester type selection (e.g. rotational-flowed digester), elevation determination, earthenwork, and construction of digester base, digester wall, feed and discharge chutes, proof seal layer and digester cover etc.



Left: The main part of the digester under construction. Photo by Wang Yaolin
Right: The gas produced is used for indoor lighting (the gadget on wall is for desulphurization). Photo by Wang Yaolin



Location: Jingyuan County of Gansu Province (the loess plateau)
Technology area: 5500.km²



Rural Biogas Development – One Digester with Three Facilities

Jingyuan County of Gansu Province, China

A campaign of "One digester with three facilities", launched by government and promoted by demonstration, is going on Jingyuan County of Gansu Province. This campaign is aimed to improve biogas digester and three facilities used in kitchen, animal house and toilet.

The demonstration project is located in Jingyuan County of Gansu Province. Historically, Jingyuan is a naturally harsh region, where shortage of "three materials" (materials for fuel, fodder and building) are felt. Furthermore, ecological degradation has led to poverty of rural community. In 1970s government encourage people to use biogas digesters, and in 1980s government called people to use firewood saving stoves and solar cookers, which to a certain extent alleviated the rural shortage of fuel material. However, due to financial and technical constraints the biogas application had a very limited progress.

In May 1979 National Biogas Application Conference was convened. After this conference a Biogas Office was set up in Jingyuan County dealing with promotion of biogas technology. During period of tenth Five-year Plan entire Gansu Province implemented a pilot village programme entitled "Ecological Homestead and Enriching People", sponsored by the Ministry of Agriculture, in addition to the National

Left: Biogas digester under construction. Photo by Chang Qing
Right: Biogas used for cooking. Photo by Wang Yaolin



Location: Jingyuan County, Gansu Province
Land use: Farmland/other
Climate: Arid

WOCAT in Tibet Autonomous Region

Supported by German Technical Cooperation the Water and Soil Conservation Bureau of Tibet Autonomous Region has conducted training on WOCAT and SLM technology documentation. Totally 6 cases have been documented.

Challenges

- 1) Expand the operational range of WOCAT
- 2) Raise the efforts from farm to regional levels
- 3) Set funding mechanism

1.2.7 Mongolia

Report by Batzaya Tsegmid (Mongolia_progress 2008.ppt)

The WOCAT concept and methodology was introduced by the Coping with Desertification Project (CODEP) funded by SDC and well accepted by the Desertification Study Centre (DSC) of the Geo-Ecology Institute. The objective of CODEP is to support Mongolia's capacity for improving the effectiveness of national and international efforts on coping with desertification and promoting sustainable livelihoods in arid and semi-arid areas. The duration of the project is from 2007 - 2014.

WOCAT is acknowledged as an important tool that could be applied in Mongolia for compiling existing technologies and approaches and for information sharing through the global database. The staff of DSC is well trained in the use WOCAT tools. A focal WOCAT person has been appointed by the Institute.

WOCAT basic questionnaires on technology and approach were translated into Mongolian language. A total of 19 technologies for grazing land experiences, agronomic, structural and management measures were compiled including technologies which were applied by UNDP Sustainable Grassland Management Project. The technologies were documented together with experts.

Activities in general

- Introduction of WOCAT training to DSC staff by CODEP
- Training on WOCAT with backstopping from CDE
- Training of data collectors in 3 gobi aimags through DSC
- Translation of Ts and As into Mongolian language
- Documentation of 19 technologies
- Translation of the database into Mongolian language
- 4 pages summary of 19 technologies be ready for presentation in the Science exhibition in November 2008
- Students practical work (3 students trained on WOCAT questionnaires and filled out 5 technologies in Khovd aimag)

1.2.8 Tajikistan

Report by Hukmatullo Ahmadov (Tajikistan_WOCAT_2008.ppt)

Situation in Tajikistan

The situation in Tajikistan is characterized through a rapid growth of the population and a scarcity of land resources for agricultural use. 93% of the territory is showing a hilly and mountainous relief. 7% of the flat area is occupied by irrigated cotton fields. Therefore, people were forced to transfer agricultural areas such as rainfed cropping land in the hilly zones, which were formerly mainly used as pastures. The land in the rainfed areas has been distributed to individual farmers. Today many farmers depend on crop production from rainfed areas. Knowledge on conservation measures for the sloping land is not widespread and farmers apply the same management as for large fields in the valleys. Consequently inappropriate land management leads to severe land degradation. Nevertheless there are some areas that have developed conservation measures and are successfully protecting natural resources.

The main problem of the rainfed area of Tajikistan is land degradation; the ecological and economic losses are significant (losses of land quality, soil fertility, and biodiversity). It is therefore essential to create a database of SWC technologies of the rainfed zone of Tajikistan and to make it accessible to all farmers interested in sustainable land management in Tajikistan.

WOCAT activities

Two WOCAT workshops were conducted in 2008 with participants from Varzob district and the WOCAT questionnaires were translated to Tajik language.

1.2.9 Kyrgyzstan - CAMP

Report by Ermek Baibagyshov (Kyrgyzstan_2008.ppt)

CAMP Alatoo is a public foundation, contributing to the development of mountainous villages in Central Asia, based on the sustainable natural resource use. The foundation is working on the development, adaptation and implementation of the best international and local practical experiences.

Main working fields in relation to natural resource use

- Learning for Sustainability (Lfs) workshops on sustainable resource use
- Water and Soil Conservation Technologies (WSCT)
- Sustainable pasture management
- Energy saving activities
- Village development planning

Current situation in Kyrgyzstan

- 2.8 million of Kyrgyz villagers (90%) took ownership of arable lands.
- Villagers took ownership of 1.59 million hectares of agricultural land including 1.3 million hectares of arable land.
- According to the agricultural census data there are 227.3 thousand peasant farms, 176 thousand collective farms, 39 joint-stock companies and 464 agricultural cooperatives in the Kyrgyz Republic.
- Arable lands (mainly southern areas) ranging from 0.05 ha to 0.5 ha per villager were transferred to private ownership.

Activities of CAMP Alatoo in the frame of Water and Soil Conservation Technologies (WSCT) in 2008

- Contracts: OCSE (funding); RAS-Naryn (implementation); Association of water users and Local Self-Governance (overtaking of implemented technologies under future control)
- Workshops: Conducting of LforS workshops on WSCT in 10 and SPM in 8 villages
- Implementation of 24 WSC and 4 SPM technologies
- 10 WSC technologies have been documented and translated from Russian into Kyrgyz and English languages.
- Organizing round tables at local and national level
- Monitoring of 44 Water and Soil Conservation Technologies (WSCT) from 2007
- Collection of information and description of 10 new WSC technologies and publishing

Dissemination - Awareness building activities

- Learning for Sustainability workshops on WSCT; Workshop objective: To train the villagers and farmers on the sustainable use of natural resources through water and soil conservation technologies
- Through partners: Rural Advisory Service (RAS); Kyrgyz Agrarian University (KAU); Territorial public self-governance (TPS)

Monitoring and Evaluation

- At local level creating of the local commission for monitoring and control
- Environmental impact monitoring and evaluation in a participatory way with a interdisciplinary team (RAS, farmers, specialists ...) at the village/ watershed level

Results

- Lfs workshops in Kyrgyzstan: on WSCT in 10 villages and on SPM in 8 villages.
- 10 WSC technologies have been documented and they were translated into Kyrgyz and English languages.
- 28 technologies are implemented in 2008.
- Round tables at village and at national level
- Supervision of internship students from Kyrgyz Agrarian University and HU Berlin

1.2.10 Sustainable Pasture Management in Kyrgyzstan

Report by Ermek Baibagyshov (Kyrgyzstan_2008.ppt)

Sustainable Pasture Management (SPM) is an integrated approach. It involves community development with focus to sustainable use of natural resources – including different key questions such as awareness building, strengthening of local institutions/ partners and development of a strategy for community development and resource management. Furthermore, the integrated approach requires close partnership and common efforts from different organizations working at the local level.

In 2007 preparation work for awareness building of pasture management at the community level was done. The experience has shown that there is a lack of knowledge at local level and a demand for the creation of a local institute for pasture management.

The main goal is to contribute to sustainable pasture management in Kyrgyzstan. With the objective of improving livelihood and pasture potentials through development of an integrated approach/ strategy and common pasture management at Jergetal watershed. Due to several reasons such as the actuality of the pasture problem the Jergetal watershed was chosen as study area.

Project activities in the Jergetal:

- Carrying out a base line study at local level
- LforS workshops in each village
- Initiating the creation of pasture groups in villages
- Initiating the creation of pasture committee at LSG level
- Implementing of conservation technologies
- Development of pasture maps for each village, LSG and watershed
- Development of a plan for land use (including pasture use)
- Development of information materials and conducting of topical workshops
- Creation of MCA (Micro Credit Agency)
- Development of long-term strategy for watershed development

The expected results are:

- 1) Approach for common pasture management (pasture management as par of integrated approach for land use) with necessary tools developed, tested and adapted for local conditions.
- 2) Partnership between resource management institutions strengthened
- 3) Awareness of local people and pasture management increased.
- 4) Inhabitants of Jergetal watershed use new or improved sources.

1.2.11 Serbia

Report by Miodrag Zlatic (Serbia_WOCAT report_2008)

WOCAT promotion

- (1) Education of students on IV year of studying
 - Lectures on IV year of studying at DEE
 - Involving WOCAT in 1 diploma work & 1 PhD
- (2) Engaging Students Forum of WASWC in QTs and QMs
 - Organized terrain work with Student's Forum in Tresnjica watershed in West Serbia (July 12-15)
- (3) Promotion at the 15th ISCO Congress (Budapest, 18-23 May 2008)
 - Promotion at ISCO: through presentation "WOCAT Contribution to the Serbian Practice and Education" and through WASWC meeting where G. Schwilch presented WOCAT and book "Where the land is greener"

Action on QM and QT

- QM training for Student's Forum was organized on July 10th for the members of Student's Forum
- Continuing work on QM: QM data was collected and entered in the WOCAT data base for the Moravicki, Pirotski, Sumadijski, Toplicki and Zlatiborski districts through the 27 communities.
- QTs were updated and 3 were collected in Tresnjica watershed

Further activities

- Contacts with national and foreign donors/ institutions such as the Directorate of Water Management of Ministry for Agriculture, Forestry and Water Management

- Annual Report for Directorate for Waters of Ministry for Agriculture, Forestry and Water Management

1.2.12 South Africa

Report by Talita Germishuys (SouthAfrica_WOCAT_2008.ppt)

The main focus of WOCAT in South Africa is the participation in the WOCAT/ LADA national assessment and the development of a QM viewer and of the QA online management system. One of the main inputs was for the further development of the QM, based on experience with the LADA National Assessment of Land Degradation and Conservation.

The following steps were conducted for the database and QM development in 2008: 1) Develop Phase 1 of QM viewer on server in South Africa. Cannot deploy on WOCAT server - CDE no longer support ESRI software, 2) Develop QA database and online data management system. Deploy to WOCAT server. Test and debug system, 3) Compile quotation for development of QT database and online management system.

WOCAT tools & methodology

- Completed 8 QA's and 5 QT's and entered some of them on the database.
- Completed +/- 400 QM Matrixes in three different provinces of South Africa (North West Province completed, Western Cape 85% complete and Limpopo 40% complete).

Conferences & workshops

- For administrative issues and the implementation of WOCAT in South Africa 6 in-house meetings were conducted in 2008.
- 4 people participated on the 13th WWSM in Switzerland.
- For awareness building about WOCAT a presentation was held at 1) Drynet Workshop for civil society in CCD, Kempton Park South Africa, 2) UN CSD 16 Side event, New York.

WOCAT is still a priority in South Africa and it is an integral part of the Soil Protection Programme.

1.2.13 Ethiopia

Report by Daniel Danano (Ethiopia_SLM strategies&Knowledge.ppt)

The EthioCAT overview book was completed and published in 2008. The EthioCAT book contains 33 technologies and 8 approaches. The technologies documented in the book shall be used for further spreading and scaling up within the Ethiopian Strategic Investment Framework (ESIF) (for more information to the ESIF refer to the summary of the symposium presentation). The ESIF project is a multi-stakeholder and a multi-donor framework adopting WOCAT tools for its Knowledge Management. For the ESIF project a strategy paper on 'Scaling-up Strategies for Best Land Management Practices in densely populated areas of Ethiopia', is under development.

Workshops and conferences in 2008

- In February 2008 within the Country Partnership Program for Sustainable Land Management in Ethiopia the national SLM platform was launched.
- A 2 days workshop on 'Strategies for Scaling-up and Knowledge Management' was conducted in August 2008 in Addis Ababa with support from CDE/ WOCAT. The aim of the workshop was to introduce WOCAT and the methodologies to the regional representatives coordinating the ESIF project.
- A donor's conference for the Ethiopian Strategic Investment framework (ESIF) for SLM was conducted in September 2008 in Addis Ababa.

1.2.14 Nigeria

Report by Ikponke Nkanta (NIGCAT REPORT.pdf)

Awareness raising has been going on and WOCAT has been introduced to more institutions in Nigeria, although adoption of WOCAT by those institutions is not yet pronounced.

The pilot project with farmers on the WOCAT technology 'Aerial Cropping' is on going. Aerial cropping is one of the technologies identified by NIGCAT. NIGCAT is working with farmers on the adoption of this technology. Aerial cropping is a SLM technology whereby farmers plant trees on their farm to provide

mulching materials on pruning. The leaves also provide shade which helps in preventing direct sunlight reaching the soil, hence helps in reducing soil moisture evaporation. Raising of seeds and transplanting is on progress. 'Tree For the Future Inc. USA' is a partner in the project.

8 new SLM technologies have been documented. Some approaches have also been identified but are not yet documented.

Overview book

A draft overview of 12 SWC technologies practiced by farmers in Nigeria has been produced, although few data will need to be added or edited before the final production.

NIGCAT limitations and suggested solutions

1) Due to time constraint and inadequate human resources some data was not collected and it was not possible to present the work in the standardized four page summary format provided by WOCAT. Furthermore many researchers and SLM scientists are not yet conversant with WOCAT. Due to limited human resources, it was not possible to produce the base map of the areas where the technologies were identified. Data collection was done by only a few persons, who did it voluntarily. More researchers and scientists would be interested in the exercise if there were benefits attached to the exercise.

For attracting more human resources further awareness raising is needed and NIGCAT should try as much as possible to link and bring in agricultural institutions, universities and NGOs. More efforts should be made to obtain the attention of the Federal Ministry of Agriculture, and if possible encourage the adoption of WOCAT by the Ministry as a National programme to assist in SLM monitoring and evaluation in Nigeria. Benefits could be to list their names as contributors in the publication and the free donation of WOCAT materials (e.g. CD-ROMs, WOCAT publications such as 'where the land is greener', etc).

2) Funds for awareness raising or the conduction of national trainings is still lacking. Most of the technologies documented came from few communities in the Akwa Ibom State. Therefore it was difficult to expand the work across the country. Additionally it was difficult to send out proposals, since there was no yet a tangible output available for showing to possible donors.

With the first output/ production donors may give attention to the work or proposals done by NIGCAT.

3) Reference materials (e.g. journals, textbooks, CDs, newsletters, etc.) with respect to indigenous SLM technologies were lacking. Most libraries have materials on SLM practices in general but not on the local or indigenous practiced technologies.

1.2.15 SWALIM – Somalia

Report by Njeru Jeremiah

About SWALIM

SWALIM contributes to the eradication of extreme poverty and hunger by enabling Somali institutions to provide information on water and land resources. It does this by: (1) Improving water and land information management and decision support, (2) Establishing baseline information, (3) Establishing systems and methodologies for monitoring water and land resources and related environmental changes, (4) Developing natural resources management studies and planning tools and (5) Enhancing natural resources and information management capacity of government authorities and other Somali institutions. For more information, visit www.faoswalim.org.

WOCAT/ LADA national mapping for Somalia

The results of the pilot study carried out in 2007 were evaluated and a new workshop was conducted in September 2008. The aim of the second workshop was to adapt QM to the whole country.

The SWALIM project is funded by EC and has a contract with FAO. FAO starts to appreciate the work done with WOCAT.

1.2.16 Discussion & Questions

It was pointed out by Sally Bunning that it is getting more and more important also for the regional and national partners to attract additional funding also for scaling-up of the documented information. However, the funding for the national and regional WOCAT initiatives remains a challenge.

Concerns from Hanspeter Liniger were expressed that really the latest QT and QA versions are used by the countries/ regions. This is crucial for having comparable documents and to address the new global issues integrated in the questionnaires.

1.3 New initiatives

1.3.1 DERAD Madagascar

Report sent by DERAD

DERAD activities related to WOCAT

Within the project 'grazing land for small ruminants in Southeast of Madagascar' the DERAD association is in collaboration with WOCAT. The project is financed through the Eastern and Southern Africa Partnership Programme (ESAPP). The activities are the following: 1) evaluating the stage of the grazing land at village level, associated to 2 districts in the Southeast of Madagascar, 2) identification of the faced pressures, 3) suggest recommendations to limit the possible degradation and for promotion of their rehabilitation.

Within this project the used WOCAT tools are: 1) WOCAT/ LADA Mapping questionnaires for characterisation of different stages in the area, 2) Questionnaire on SLM approaches for summarizing the necessary recommendation and filled in during the project. A problem concerning the use of QM will be to evaluate the development of the degradation, due to the lack of aerial and satellite images. Maps (1:100 000) are available but not showing the desired accuracy for the research.

1.3.2 Ghana

Report sent by Souroudjaye Adjimon

The initiation of WOCAT in Ghana started smoothly as planned. Many SLM specialists including groups, institutions, NGOs were contacted and introduced to WOCAT methodologies. WOCAT was introduced to research institutions, governmental ministries, universities and Agricultural Centres in Ghana. Most of them if not all, are very much interested in WOCAT and its activities in the region. We look forward for a successful and fruitful collaboration and partnership in the future.

After a series of visits, discussions, and communication exchanges with interested individuals/ organizations, an initial GHANCAT workshop was organized. At the onset, the several numbers of the pages of the questionnaire was discouraging to some participants. Later during the second workshop/ training, they all developed great interest in using the WOCAT questionnaires after considering the advantage and need of documentation in Ghana.

Presently, 5 SLM Technologies and 2 Approaches in Ghana have been documented and entered in the WOCAT Access databases. Plans to send report of the survey and documentation to participating institutions is on course.

It is our hope that the contribution we have made and the additional ones we will be making to the WOCAT online database, can help improve the land and livelihoods of land users in Ghana and in other countries.



Speakers at the WWSM: Laouina Abdellah, Rokhaya Daba Fall with Romeo Labios and Niranjana Sahu. (Photos: Hanspeter Liniger)

TOPIC 2 SPECIAL PRESENTATIONS

Rapporteur: Rima Mekdaschi Studer

2.1 Syria - ICARDA

Report by Feras M. Ziadat (Syria ICARDA 2008.ppt)

The International Center for Agricultural Research in the Dry Areas (ICARDA) works in cooperation with National Agricultural Research and Extension Systems (NARES), development organizations and rural communities on natural resource management in the non-tropical dry areas of the world.

At the drier end of these dry areas the natural rangelands (average annual rainfall 100-250 mm) can be found, where over-grazing and fuel cutting have caused widespread land degradation. Micro-catchment water harvesting systems can help capture and concentrate surface runoff flows at the plant location and, thus, re-establish vegetation in these degraded areas. The mechanized Vallerani system, a special tractor-pulled plough, which constructs water-harvesting catchments, is currently used by ICARDA in community-based rangeland water-harvesting research projects in Syria, Jordan and North Africa. Research focuses on the identification of the optimal combination of contour spacing and shrub species on different slopes and soils; on implementation efficiency, and on the involvement of communities in the rehabilitation and management of the degraded land.

In rainfed cropping environments with 200 to 400 mm annual precipitation, the uncertainty of rainfall is the most important production constraint affecting the livelihood of the farming communities. Here ICARDA has been working with farmer interest groups on water harvesting and conservation technologies for drought tolerant fruit trees (e.g. olive, almond, pistachio).

In the wetter parts of the rainfed production environment (annual rainfall 400-800 mm), erosion on sloping lands becomes a more critical issue. In the rainfed (barani) areas of Punjab Province in Pakistan, ICARDA has worked with local researchers and farmers on the development of low-cost terrace outlet structures to harvest and control erosive runoff flows from the sloping lands during the intensive monsoon rains. These activities have now evolved into a full-fledged integrated community-based watershed and livelihood improvement project.

In the hilly olive areas of northwest Syria various soil and water conservation options are currently being tested by farmers, with technical support of ICARDA and the local extension office. These technologies include (i) stone bunds and terraces, either continuous along the contour or semi-circular around the trees; (ii) cultivation of cover crops, such as vetch, in between the trees; (iii) intercropping with grape trees; (iv) reduced tillage; (v) untilled vegetation strips along the contour; (vi) application of organic manure; and (vii) application of soil around trees. Most of these technologies also occur in the WOCAT database, but the right application, combination and adaptation of these practices in this highly eroded environment remains an important research issue.



Olive areas of northwest Syria (from Syria ICARDA 2008.ppt)

Perhaps the most novel soil and water conservation approach ICARDA is currently working on is the development of community micro-credit systems to support the implementation of sustainable soil and water conservation and diversification options. We have supported two communities in the hilly eroded olive areas of northwest Syria to obtain small grants from UNDP-GEF for these micro-credit funds. Loan requests need to be approved by a community committee with support from ICARDA staff and Extension

to ensure environmental sustainability in a watershed context. These micro-credit systems allow researchers to test soil and water conservation options with farmers in a fully participatory manner.

With respect to our plans, we hope to recruit a junior professional officer that can serve as a WOCAT focal point for our projects in the dry areas and can work with our cooperators on the documentation, dissemination and evaluation of our soil and water conservation technologies and approaches, using WOCAT tools. We also welcome qualified graduate students to assist with the application of WOCAT tools in our research projects.

ICARDA is also very much involved in conservation agriculture projects in Central Asia and collaboration with CAMP exists.

2.2 WUR - International land & water management programme

Report by Jan De Graaff (InternatLandWaterMang_deGraaff.ppt)

International land & water management is a discipline at the Wageningen University and Research Centre (WUR) in the Netherlands with specialisation in erosion and soil- and water conservation.

Features of the international land & water management programme

- Careful handling of natural resources land and water
- Water as production factor for food security
- Sustainable Land Use with help of erosion control

Approach of the programme

- Participative and interdisciplinary approach
- Considering link between technology and society
- Worldwide, both in Europe as well as in the third world

It is known that for the further development of WOCAT much local information about SLM technologies and approaches is required. The organisation of the international land & water management would be pleased to support WOCAT's efforts in documenting SLM practices. The programme has every year about 20 Dutch BSc students and about 10 MSc students from various countries going abroad to undertake their BSc internship or their MSc thesis on a subject related to soil and water conservation. There exists the opportunity for WOCAT to provide subjects for the BSc internships or the MSc theses respectively. Regional/ national WOCAT initiatives and the global management are encouraged to bring in their ideas and suggestions for possible collaborations. The Dutch students usually cover their own costs and are partly subsidised by the University, but the hosts usually provide facilities such as a working place.

The BSc students usually go away for their internship around August, early September, for a period of 3 – 4 month. They can work on an assignment, formulated by internship provider. The BSc students usually require some supervision, considering that this it is usually their first assignment abroad.

The MSc students start already in spring with the writing of a research proposal and leave for their thesis research around July/ August for a period of 4-5 month. They will work on their own research, but also take into account the objectives of the institution where they undertake their research. Since they have already some previous work experience they require less supervision, but they will have also contact with their supervisors in the Netherlands about the progress of their research.

For concrete proposal for some assistance with an on-going assignment or with a particular research subject, the following persons can be contacted: Wim Spaan (Wim.Spaan@wur.nl) or Jan de Graaff (Jan.deGraaff@wur.nl) and/or at ISRIC Godert van Lynden (Godert.vanLynden@wur.nl). More information about the BSc and MSc study programmes (BIL and MIL) can be found on <http://www.wur.nl/> (Education, International Land and Water Management).

2.3 Short introduction to Danone

Report by Yann Kervinio

Danone is the world leader in dairy products and bottled water. The production of Danone is divided into 4 dimensions.

The Group employs almost 90,000 people in more than 120 countries. Danone is not only a company producing food products it is also a company looking at environmental and social aspects. Therefore, Danone is committed to respect the environment, and work tirelessly to ensure that their actions across all aspects of their operations reflects this commitment.

It is important for Danone to measure their environmental impacts, for identifying the best actions to achieve continual improvements, and for monitoring their progress. The types of measurements are the following:

- carbon footprint (the amount of CO₂ (equivalent) emissions created in producing, packing, and transporting of their products from source to store)
- energy and water usage (the amount of water, e.g. in cleaning and rinsing operations, and energy used at their bottling facilities)
- packaging ratios (the amount of packaging used in relation to the total weight of the product content) (www.danone.co.uk/about-danone.htm)

Although the farming industry is vital to our way of life, it is responsible for nearly 25% of greenhouse gases, and accounts for 70% of all water consumption and 40% of groundwater pollution. For nearly ten years the DANONE group has worked with farmers to develop sustainable farming practices (<http://www.danone.com/?lang=en>).

Examples of Danone projects:

- In Bangladesh a micro-credit system for local farmers is supported for delivering their milk to Danone
- Also engaged in providing drinking water together with UNICEF in Niger.

2.4 Climate Change Adaptation, Orissa India

Report by Niranjana Sahu and G. B. Reddy (CLIMATE_CHANGE_WORLP,ppt; Climate_Change_WORLP.pdf)

Learning from Western Orissa Rural Livelihoods Project (WORLP)

Introduction

The economy of Orissa is primarily agrarian. Agriculture contributes nearly 30 % to the Net State Domestic Product (NSDP). About 73 % of total main workers are engaged in agriculture. Over the last two to three decades there has been stagnation in agriculture in Orissa. Triennium annual compound growth in agriculture production is well below the national average. Moreover, these districts are prone to climatic shocks primarily drought and occasional flash floods. Land management practices strongly influence fluxes of carbon dioxide and other greenhouse gases to the atmosphere. A myriad of questions remain about the possible repercussions of future land management for greenhouse gas emissions.

Over the last decade, the coastal state of Orissa has witnessed a mammoth supercyclone, extreme heat waves, frequent droughts and a high-intensity rainfall amounting to more than 500 mm in a single day. Significantly, the total amount of rainfall over the Indian subcontinent has remained constant over the last century, but the frequency of extreme weather phenomena such as high-intensity rainfall, prolonged dry spells, frequent flash floods and intense heat waves have increased over the last few decades (Goswami et al., 2006). Some of these weather events have a direct influence on the management and productivity of natural resources including the agricultural sector. Specifically the Kalahandi, Bolangir, Bargarh and Nuapara districts of western Orissa are a few of the worse affected areas by climate change and variability. With the frequent occurrence of drought and dry spells, Kalahandi is often equated to the 'cradle of poverty.'

Climate Change and Climate Variability

There are three possible ways to address climate change phenomena: (i) through mitigation measures, (ii) through adaptation processes, or (iii) through acceptance and continued suffering (coping). Mitigation

measures are long-term and require constant effort and global consciousness. Adaptation through various coping mechanisms to build in resilience towards climatic vagaries is an on-going process, focusing on sustainable management of natural resources and livelihood diversification.

Institutional responsibilities for tackling Climate Change

The strategic decisions on adaptation issues and convergence are taken by the Director, Watershed Mission. Most responses to climate stress are coordinated by the Collector in the district. Project Implementing Team members (PIAs) take operating decisions by taking watershed associations and SHG groups into confidence for adaptation and coping. Some PIAs also work with district authorities on responding to climate induced events and critical events. The capacity building teams (CBTs) provide strategic coordination for adaptive actions and LSTs have the same role but with a more hands on approach in the watershed areas in the blocks.

Results and discussions

1. Rainfall trends: The results show that for all the five blocks of Nuapara district more rainfall was received during the project period in monsoon than the pre-project period. The total rainfall during the monsoon seasons in Bargarh, Kalahandi and Nuapada districts appears to decrease whereas an increasing trend may be observed for the Bolangir district. Total non-monsoon season rainfall increased for Bargarh, Bolangir and Nuapada districts and decreased for the Kalahandi district. The rain days of greater than 10 mm rainfall magnitude are decreasing, which could be a reason of prolonged dryspells between two consecutive rainfall events, which can cause complete failure of crops.

2. Farming practices: Because of the interventions there is a large-scale community sensitization to promote agricultural activities. Yield, cropped area, irrigated area, cropping intensity all show an increasing trend. This is a definite, positive impact of NRM activities in an erstwhile drought-infected region of Orissa.

3. Changes in ground water table: Increase in groundwater table during the intervention period in two monitored watersheds is quite evident for all kinds of lands (upland to lowland). Also, there is reduction in the intra-annual fluctuation of groundwater table. An indication of the resilience of the natural systems has shown which may have been an outcome of large-scale NRM interventions.

4. Community coping mechanisms: Community coping strategy is largely based on their past experience. This includes the following:

Agriculture

- Farmers choose crops that consume less water (mostly low yielding local varieties)
- Adjust crop management practices for upland/fragile land situations by deep furrow ploughing to capture some moisture
- Reduction of planted crops (they reduce area and seeds are used for foodstock or exchange)
- Adjusting cropping calendar and farming activities (short duration varieties are attempted)
- Re-use of drainage water for vegetable crop

Food habit

- Change of food habit: There are indigenous methods of preservation wherein people tie a handful of rice in one end of the cloth and then dip it in boiled water. Pieces of mahua flower is added to it and left for some time. This pasty syrup is then consumed by the people. The rice still tied is retrieved and dried the next day and then again syrup is produced and the cycle continues when the rice is completely depleted.
- Withholding consumption: Consumption is withheld by some first cutting down on pulses in exchange of rice and subsequently reducing it - the women who eat in the end serving the rest of the family survive mostly on water extracted from the rice preparation. Only food is prioritised for children, pregnant women and aged people.

Migration: Migration is one such coping strategy during drought, which has medium to long term impact on health and indebtedness.

Seed exchange: Seed exchange has a direct link to adaptation as well as coping. Through this some genetic resources are preserved in the area and new introductions enhance the coping mechanism within the community in adverse situations and higher yield reduces stress. Resistant (drought and blight) varieties ensure better adaptation.

Crop intensification: There is an indication of increase in cropping intensity in the project area. The new crops introduced in the region include sunflower, groundnut even in the Upland Aat land). Onion, Tomato and other vegetable during Rabi season in the medium upland (Ma/ land). The project has also

introduced several tuber crops that can thrive under moisture stress, e.g. Sweet potato, Onion, Elephant foot Yam, *Colocasia*, Yam and Broccoli in watershed areas.

Cropping pattern: Generally Gurji, Maize, Ragi, Suan, Sesamum, upland Paddy are taken up in *Aat* lands and Paddy in *Mal* lands. In Bolangir, some have substituted by altering the second year crop to legume. This has helped to improve the nutrient content in the soil for better plant growth and development. The above annual crop rotations are common among the farmers in the watersheds in Bolangir. The Arhar + Ground nut, Arhar + Green Gram cropping is found to be very much beneficial to the farmers in terms of providing them with higher economic return and adding fertility to nutrient poor acidic soils.

Social & human capital: Stronger groups in watersheds had better solidarity and many group activities could be pursued effectively. Wherever the social capital is high, the community is more resilient and more equipped to handle climate shocks effectively. The livelihood diversification of the landed to multiple crops and for the landless to non-farm activities reduces the vulnerability during climate stress conditions. Convergence among agencies was helpful to deal with climate stress conditions.

Carbon cycle: There are activities in project that have been helpful in abetting the greenhouse gases (especially CO₂, Nitrate and Methane). Some of them are plantations in common and private land. The composting and vermi-compost help in mitigating the methane emission from the field which has more potent warming potential.

Conclusion

Under the WORLP programme, several SWC and cropping system measures have been implemented in 290 watersheds spanning 29 blocks of Bolangir, Kalahandi, Bargarh and Nuapara districts of Orissa. These include as many as 1300 water harvesting structures, over 3000 farm ponds, several sunken ponds, sunken pits, over 2000 km of field bunds and several other soil and water conservation structures. While a major focus has been on the livelihood improvement of landless, small and marginal farmers through improvement in major crops such cereals, pulses and oilseeds, efforts have also been focused on income generation through backyard horticultural plantation, kitchen gardens, silvi-cultural, silvi-pastoral, and aqua-cultural activities. Such large-scale interventions have yielded visible and definite positive impact on agricultural productivity in particular and livelihood in general. There is a clear shift from rice-based mono-cropping to two-crop sequence in addition to diversification to more income-generating crops such as cotton, groundnut, gurji, onion and few vegetable crops. Farmers have also started with the cultivation of groundnut on uplands during the Kharif seasons. This is a clear evidence of adaptation on the part of a farmer to change from the age-old practice of rice cultivation irrespective of land type and associated climatic condition to more attractive cropping practice. Widespread NRM interventions, augmented agricultural activities and the evolution of sensitized farming communities indicate a strong resilience against the impending climate-induced natural disasters.

2.5 DESIRE

2.5.1 The DESIRE project 'Desertification mitigation and remediation of land - a global approach for local solutions'

Report by Godert van Lynden (DESIRE Introduction Oct 2008.ppt)

During the last decade at least 40 large international research projects have been executed on the topic of desertification and land degradation in the EU and Northern Africa. However, there were relatively few projects with focus on remediation and prevention, and on information exchange.

DESIRE was submitted and granted for funding in 2006. There are 26 partners and 16 study sites involved in DESIRE. The DESIRE-project duration is 5 years, with starting date February 1, 2007. The total project budget is > 9 million Euro, of which around 7 million from the EU and the remainder part from different national governments.

WOCAT is playing a major role in working block (WB) 1 and 3. In WB1 the WOCAT/ LADA mapping methodology is applied in the study sites and in WB3 the questionnaires on SLM technologies and approaches are used for the documentation of strategies and for the application of the decision support tool developed within this WB (see also topic 6). From the WOCAT global management CDE and ISRIC are both main contributors to the DESIRE-projects and are also leaders of WB1 (ISRIC) and WB3 (CDE) respectively.

DESIRE project goals

- To develop and test promising prevention and remediation strategies against desertification and land degradation in 18 (now 16) study sites around the world in close cooperation with local stakeholders, and
- To disseminate results to different fora, amongst others using a web-based harmonized information system

The WOCAT database builds a central element for selecting potentially available soil and water conservation measures for the DESIRE study sites, and for evaluating new technologies developed during the course of the project. Within the DESIRE project, the focus of the WOCAT methodology will be broadened to address other degradation phenomena also like salinity, wildfires, wind erosion, flash floods etc. (NB: this meanwhile applies to WOCAT itself as well). Scientific and local indigenous knowledge will form the basis to develop new preventive and mitigating strategies to expand the WOCAT database. Strategies should be environmentally protective, socially acceptable, economically viable, and effective in reducing the risk of degradation and desertification.

Progress WOCAT components in WB1 and WB3

WB1 (see also Topic 5 on Wednesday: WOCAT/ LADA mapping)

- QM revision finalised (in close collaboration with LADA project)
- Base map preparation (in close collaboration with ITC - WB4)

WB3 (see also Topic 6 on Friday: Decision Support)

- 3-step methodology developed and guidelines prepared, trainings to study site teams conducted
- 1st stakeholder workshop held in almost all sites (resulting in list of locally applied strategies, list of local indicators)
- WOCAT questionnaires completed in several sites

At the end, DESIRE project output will consist of

- Guidelines for prevention of desertification and restoration of degraded land
- A web-based harmonized information system, including an updated WOCAT database
- Intermediate reports, papers, maps, presentations for conferences etc.
- Special issue for an international scientific journal
- PhD (and MSc) theses

CDE and ISRIC are both very strongly involved in DESIRE, LADA and WOCAT which brings along the unique opportunity to develop methodologies and tools being used in all three projects and programmes and to profit from synergies.

2.5.2 DESIRE partner: Morocco

Report by Abdellah Laouina (MoroccoWocat_2008.ppt)

As a partner of the DESIRE-project, the WOCAT tools and methodology were used in Morocco by the Moroccan team, in the UNESCO-GN Chair, at the University Mohammed V, Rabat.

The evaluation of SWC technologies - the use of WOCAT tools

As the degradation threat remains important in spite of the efforts conducted, and as in some cases the erosion process seems to become more efficient, the question rises: how to overcome these constraints? Evaluation is needed at the scale of a small region (the Sehoul commune, close to Rabat) and also a performing tool for evaluation should be used. In this regard The WOCAT tool provides many advantages. According to the DESIRE WB3 methodology, the Moroccan team organised a first workshop for technology identification, field work for technology assessment and a second workshop for successful strategies selection.

Workshop in June 2007

The complexity of the situation relies in the multiplicity of ownership statutes at the two levels of property and exploitation. On the one hand are very poor owners (less than 2 ha), in a very weak situation, incapable to make any investment and affected by land degradation and on the other hand a few very rich owners coming from cities with high possibilities of investment and the ability to profit from the state projects of agriculture development like plantations or technique transformations.

The first workshop identified the degradation problems, the constraints and some solutions:

- The absence of SWC traditions, because the main activity of the population of the commune was more oriented to extensive grazing.

- The importance of social needs for most of the peasants of the region explains the current trend for abandon and migration.
- The vision of the national and local authorities is no more oriented for the development of agriculture in this marginal region; their vision is more oriented for new activities as leisure and tourism.
- The absence of associations of owners and the very weak role of local institutions.

Some objectives of land degradation mitigation and some technologies were proposed by the stakeholders who attended the workshop:

- 1) Improvement of the grazing possibilities of the pastures and abandoned lands by the plantation of shrubs as *Cactus opuntia*, *Atriplex*, etc.
- 2) Fighting the overland flow on weak slopes by mulching with conservation of residues and the change in cropping techniques, crops rotation and soil fertilization.
- 3) Fighting the overland flow on steep slopes by fruit trees plantation associated with water harvesting and mechanic terraces.
- 4) Gullies prevention by the installation of check dams.

Work realized in 2008

- Assessment of practices including a SWC dimension for improvement of the agro-pastoral system:
 - Inside the forests: cork oak regeneration compared to eucalyptus plantation
 - In the rainfed agro-pastoral lands: rotation compared to monoculture
 - Introduction of the fruit trees as a new measure in this area, on lines separated by annual crops strips
 - Permanent cover of degraded slopes with fodder cultivation instead of leaving bare soils
- Selection of promising strategies: In October 2008 a second workshop with engineers and technicians was conducted. The participants were rather sceptical about the WOCAT methodologies and tools. One of the reasons is probably their already available knowledge/ judgement and also their own solutions. A second workshop is planned for December 2008, including also farmers for discussions in a participatory way for selecting solutions.

Conclusions

In the context of the absence of SWC tradition, the current transformations can lead to an increased degradation processes. At the same time, the great choices of development don't encourage the adoption of SWC. It's why the solutions proposed must be very simple and with a reduced cost and also applicable by the poor farmers.

2.6 Senegal

Report by Rokhaya Daba Fall (Projet_WOCAT_senegal.pdf; SENOCAT.ppt)

The national institute of Pedology

The former 'Bureau de Pédologie du Senegal (BPS)' was participating in one of the very first WOCAT workshops (in 1994, Wageningen, the Netherlands). The collaboration came to an intermediate stop by the supersession of the BPS in 2004. With the establishment of the 'Institut National de Pédologie (INP)' the collaboration between WOCAT and Senegal shall be reactivated. INP was born in 2004 from a prospective, global and integral vision for the development of a public facility with a scientific and technical character.

Potential WOCAT partners can be identified within different stakeholders levels involved in soil science and particularly in soil and water conservation.

- At national level: SENOCAT including research institutes (IRD, ENSA, UCAD, UGB, ENCR), research and development institutes (SRA, INP), different research directions (water and forest, soil conservation, etc.), NGO's (Green Sénégal, Enda tiers Monde) and cooperation institutes (JICA, GTZ).
- At sub-regional level: SAHELOCAT including institutes and Bureaus responsible for conservation and soil mapping in the SAHEL countries (Burkina Faso, Cap Vert, Gambia, Guinea, Guinea-Bissau, Mali, Mauritania Niger, Senegal, Tchad); AGRIMETH (Niger), EIR et BUNASOL (Burkina Faso), etc.

In the view of INP soils should gain more significance. Efforts for better knowledge of soils and the preservation of soils for the future generation should be more actively promoted. Nowadays soil science

is not modern anymore, the current trend is towards environmental sciences. Although by talking about land, soil should not be forgotten.

INP distinguishes different pedo-climatic zones which are determined by the type of soil, climate and the type of degradation. The main forms of degradation in Senegal are wind erosion, water erosion, salinisation and acidification.

The work of LADA (2007) in Senegal has given references for the current stage of degradation and has activated an engagement in relation to natural resource management also within INP. In this context the interest for joining WOCAT came up. INP is in charge of the coordination for pedological activities and SLM at national and for interactions at regional or even international levels. In this regard collaboration with WOCAT is considered as a good and ideal opportunity.

Specific aims of the project

- Establishing a national and sub-regional WOCAT network
- Developing a national and sub-regional database
- Editing the WOCAT questionnaires on SLM technologies and approaches for the national and sub-regional level and also the WOCAT/ LADA mapping methodology
- Contributing to the WOCAT programme
- Coordination of activities with a group of SLM experts
- Analysing different degradation types, studying and evaluation projects and programmes in this direction
- Elaborating mapping models for the different degradation areas

2.7 IC Pakistan - Rejuvenating drylands in Pakistan

Report by Arjumand Nizami and Munawar Khan Khattak (Pakistan 2008.ppt)

Intercooperation (IC) was established 1982 and has been active in Pakistan since then. The major area of competence in Pakistan is natural resource management. The main funding partner is SDC. IC is mostly active in rainfed and in dryland areas.

Drylands in Pakistan

- 30 millions people living in drylands of which the majority is extremely poor and relying on livestock rearing and subsistence agriculture for their livelihoods
- Covering almost $\frac{3}{4}$ of the country
- Less than 250 mm of rainfall per year
- Low priority given to dryland area by the government

IC's role in drylands involves identifying cost effective techniques for enhancing the productive potential. The farmers are partners from the beginning. Simple techniques are used such as rainwater harvesting, surface water storage and dry afforestation. Furthermore a crop diversification is anticipated suiting to rainfed conditions. The activities are conducted at the local level, carried to the district level and should reach the policy level. It is important to link the micro-, macro- and meso-level for the establishment of an advocacy and policy dialogue for equitable water distribution and for highlighting drylands in development priorities.

Examples of interventions

1) Rehabilitation of silvo-pastures:

- Limited patches of land taken for activity in view of the grazing requirements of livestock.
- 35m² areas created for draining rainwater into planting and sowing sites.
- Species were chosen together with men and women in communities.
- 60% survival rate of plants recorded, tree density increased from 14 to 218 per ha.
- A profuse growth of local annual and perennial grasses (12% to 45%).
- Soil fertility improved due to moisture conservation.
- The total cost was USD 82 per hectare (2004).
- In a few cases, rejuvenation of dried wells was also recorded.

2) Sand dune stabilization:

- Karak's Thal desert, where agriculture hardly produces any yield.
- *Saccharum munja* (Kana) is the only source of livelihood.
- Communities used *S. spontaneum* for stabilising sand dunes.

- Their stalks and leaves were much longer than indigenous Kana
- They also served as wind-breaks for croplands.
- The initial one-time cost per hectare was USD 71.
- The average annual return per hectare was USD 630.
- Perennial Kana did well in prolonged droughts, other crops failed.

3) Surface water storage:

- Rainwater harvesting and storage is traditionally called *toba* (provides water for livestock and household uses).
- The project assisted the construction of water ponds to develop forest plantations and fruit orchards.
- These ponds consisted of earthen catchments to which water was diverted from seasonal and perennial streams and mini-catchments.
- In addition, water stored helped meeting many local needs, especially for women.

Macro level initiatives: Conflicts between up- and downstream users of water due to interception of flood water for irrigation exist in many areas. Efforts have been made to hold dialogues among communities and policy makers also to understand the traditional water management. A solution involving also the farmers for optimal distribution of the limited water resources has to be found.

Lessons learnt: Communities have to determine a system whereby planted areas are closed for 2-3 years to allow full regeneration. By doing this, they must also come to an agreement to ensure that the landless, (particularly those depending on small ruminants), are not affected. Furthermore it was found that open access communal lands should be avoided, since maintenance and benefit distribution are highly complex.

The involvement of local NGOs is very important for dialogue based actions. A special focus should also be on involving both men and women in decision-making, since women very often suffering the most under a vulnerable environment. The promotion of improved Kana made women enthusiastic because it provided better raw material for handicrafts they had been making for decades.

The interventions made were low cost, and can also be replicated for this low financial outlay. In this regard looking at the scale of drylands requiring rehabilitation, the government is better placed to carry on and institutionalise this activity.



Surface water storage in Pakistan (from Pakistan 2008.ppt)

TOPIC 3 TASKFORCE PROGRESS

Rapporteur: Rima Mekdaschi Studer

In the taskforces (TF) on 'Strategy' and 'Communication and Promotion' no activities had taken place during the last year, therefore no progress report can be presented at this stage.

3.1.1 Impact Monitoring

Taskforce members: Aida Gareeva, Ermek Baibagyshev, Hanspeter Liniger, Jesus Javier, Mandakh Nyamtseren, Niranjana Sahu, Digna Manzalia, (not present: Azhar Yeszhanova, Wilfred Mariki, Cai Jian-qin, Feng Wei, Yaolin Wang, Charlton Phiri, Munawar Khan)

Report by Ermek Baibagyshev (ImpactMonitoring_2008.ppt)

A TF-meeting on 'Impact Monitoring' (IM) was conducted in Bern from 16-18 October prior to the WWSM. During these days the group worked on the development of a local impact monitoring tool.

The first step within the TF-meeting was to exchange already available knowledge and tools and to inform about the current activities going on in relation to impact monitoring. As a next step the different target groups were delineated, such as land users, association of resource users, advisory/ extension services, experts, etc. Following this the main/ key indicators were discussed. Within the WOCAT QT and QA many indicators for impact monitoring are available and in QM different indicators are listed based on the DPSIR-system (Driver-Pressure-State-Impact-Response). A list was compiled out of the QM indicators previous to the meeting and was used as a basis. The indicators were divided in the three categories: ecological services, productive services and socio-cultural services. A further delineation of aggregated and observable indicators was made to bring in more clearness about relations and dependencies. For each (observable) indicator a method for assessment was determined or suggested.

Open questions:

- How to ensure use of Local Impact Monitoring Tool by WOCATeers and by other organizations
- How to link Local Impact Monitoring Tool to WOCAT ongoing activities
- Data management (who responsible, what funds needed for testing)
- Synergy with other actors developing Impact Monitoring Tools
- Sharing of experiences

Discussion & Questions

- The IM-tool should be linked to the LADA local tool kit (instead of linking it with QT/QA). In this context it is crucial to understand the linkages and not just assessing measures and technologies.
- Why develop a new IM-tool. QT and QA are already rather elaborated but they are bringing the information needed. Why further complicate it?

3.1.2 Digital Products

Taskforce members Digital Products: Wolfgang Prante, Carin Pretorius, Gudrun Schwilch, Godert van Lynden, Jeremiah Lewis Njeru, Christine Hauert (not present: Rinda van der Merwe - Pienaar, Dirk Pretorius)

1) Content management system (CMS)

Report by Kurt Gerber (DigitalProducts CMS_2008.ppt)

The new WOCAT website is under development and will be based on a content management system (CMS).

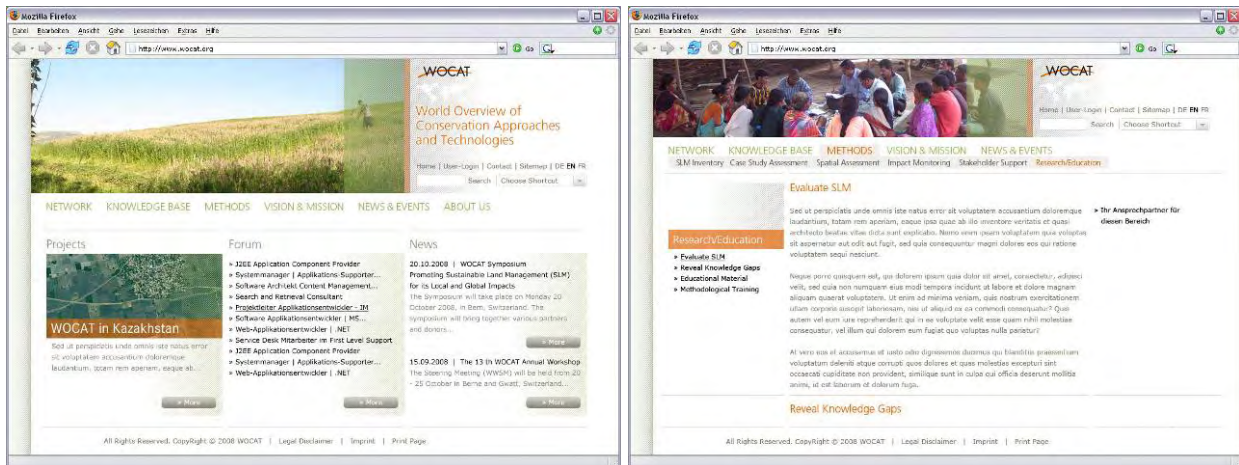
Goals of the new website:

- Better organized contents
- Easier content management
- Better interactivity with the WOCAT community
- The contents will be organised with a hierarchical structure.
- Challenges: KISS: 'Keep it simple, stupid!'

- The WOCAT team is forced to simplify the complexity and to clearly structure the content.

Planned features:

- 1) News: global & regional news, can be edited by registered users
- 2) Discussion forum covering various topics
- 3) Document database
- 4) Image database



Screenshots of the future WOCAT website.

Discussion & Questions

The participants were requested to participate in the development of the WOCAT online tools e.g. testing the new online QA database or giving feedback/ comments to the new CMS structure.

The question came up how people should be animated to participate in the forum on the future WOCAT website. -> An active moderator of the forum will be crucial, also to supervise the entries done in the forum.

A point of criticism on the layout of the CMS was the missing WOCAT logo in the header. -> Was forwarded to the person responsible for the layout (already changed in screenshots above).

The WOCAT website should be kept accessible also for slow internet connections.

The webpage '[UN-solution exchange](#)' was mentioned as a good example of an internet platform for sharing, connecting and collaborating between different organizations, institutions, etc.

In general the layout of the new website was appreciated and found good acceptance among the participants.

2) New online database

Report by Carin Pretorius (*DigitalProducts QA online.ppt*)

Online QA: <http://cdewocat.unibe.ch/wocatQA/.php>

- Online QA was programmed and developed by Carin Pretorius, CEIT. By October 2008 the database was almost finished and can be tested by all WOCATeers until the end of 2008. Carin Pretorius encourages all WOCATeers to test the QA database on possible bugs.
- The transfer of the QA data from the old database in the new one is planned for the beginning of the next year.
- So far only the English version is available, Spanish and French translation is planned.
- The user can enter data very easily into the new database, but for display on the internet it needs to be approved by a superuser (Carin, Wolfgang and WOCAT secretariat).
- The 4 page summary display function is programmed and it can be automatically generated out of the data entered.

Online QT: The development of online QT has not yet started but negotiations between Carin Pretorius, CDE and FAO are ongoing.

Discussion & Questions

There was some discussion about the background colour of the QA database. It was emphasized that it is useful to have distinct colours for the different DB's: red for QA, green for QT and yellow for QM.

The database is now available (also as link on the [WOCAT webpage](#)) and can be tested. All data entered will then be cleared before transferring the 'old' data from the Access version and before definitely using the new online version.

The Spanish and French translation will be done by the WOCAT secretariat, whereas translations to other languages will have to be done by the countries/ regions.

The idea to require user registration for downloading WOCAT files was rejected, referring to similar discussions during the last WWSM. It was also mentioned that specific user profiles should be developed to feed them with the information they are interested in. Suggestions like this should be sent to the taskforce (wolfgang.prante@fao.org or kurt.gerber@cde.unibe.ch)

If bugs or problems are detected in the new online QA database contact carin@ceit.cc

3.1.3 Mapping

Taskforce members: Dirk Pretorius, Godert van Lynden, Carin Pretorius, Hanspeter Liniger, Wolfgang Prante (not present: Nada Dragovic, Mandakh Nyamtseren, Yuji Niino)

Report by Wolfgang Prante (MappingTF Progress_2008.ppt)

Online QM:

- Good progress with data management system.
- A Mapviewer is currently running on the Geonetwork map server at FAO.
- Off-line data capturing can be done with Excel spreadsheet – investigate integration with Data Management System.
- The lack of a viewer must not prevent countries to continue with QM – should be able to view results with normal GIS software.
- The development of an Open Source solution for the Mapviewer should receive high priority.

Mapping Questionnaire:

Early 2008 a first version of the new mapping questionnaire was finalized and the different LADA pilot countries started working with it. In the workshop conducted in September 2008 in South Africa few issues were newly discussed and a few sections slightly adjusted in QM. It was generally agreed that the current version of QM shall be called the 'Version 1' to make it clear that other versions can follow and the document is under permanent development, even though a continuous revision of the questionnaires is not desirable.

For more detailed information on the progress of the Mapping activities going on refer to Topic 5 'WOCAT/ LADA mapping'.

Discussion & Questions

How to get access to the database? -> User needs to register in the WOCAT online [address database](#). The same login can then be used for online QA and QT as well.



Presentation of Arjumand Nizami from IC Pakistan. Wolfgang Prante and Kurt Gerber present the taskforces on Digital Products and Mapping. (Photos: Hanspeter Liniger)

3.1.4 WOCAT in research, training and education

Taskforce members: **Miodrag Zlatic**, Romy Labios, Hanspeter Liniger, Ikponke Nkanta (not present: Joe Balaoing, Abdybek Asanaliev, Lydia Bosoga, Aida Gareeva)

Report by Miodrag Zlatic (R&E_2008.ppt)

Almost all participating countries and regions could inform about training workshops conducted in 2008. WOCAT is also well established in research and education activities. Many field courses, lectures and BSc/ MSc studies are using WOCAT questionnaires/ tools.

BANCAT

Two workshops in 2008: (1) workshop in January 2008 at the Institute of Forestry and Environmental Sciences, Chittagong University (IFESCU), Chittagong, Bangladesh; (2) orientation workshop for the supervising teachers and their students of different universities of Bangladesh.

ICIMOD

- Orientation on WOCAT tools and methods in July 2008, Kabul, Afghanistan. The aim of the was to raise awareness about WOCAT tools and methods as a sub-activity for initiating AfgCAT.
- Training on the documentation and dissemination of SLM technologies and approaches using WOCAT tools in August 2008 Thimphu/ Dagana, Bhutan. The aim was to enable the participants to use WOCAT tools for documentation, evaluation, monitoring and dissemination of SLM technologies/ approaches and to exchange experiences and knowledge in the field of SLM.

Kyrgyzstan

Event	Date	Place	Purpose	Country/ Partners
Special course SWC in discipline "Soil Science"	2007/2008	Bishkek, Kyrgyz Agrarian University	Training of Students, 2nd course of Agronomy Fac.	KR
Subsection SWCT in discipline "Plant growing"	2007/2008	Bishkek, Kyrgyz Agrarian University	Training of Students, 4th course of Agronomy Fac.	KR
Enclosure Special course SWC to CV of students	2009/2010	Bishkek, Kyrgyz National University	Training of Students, 2nd course, Fac. of Geography	KR
Training course for consultants of Rural Advisory Service (RAS)	2008	Naryn region	Introduction RAS's officers to WOCAT tools	KR
1 day training course about SWCT	2007/2008	Naryn State University	Introduction of students to SWCT	KR

Philippines

Event	Date	Place	Purpose	Country/ Partners
Training Workshop on the Use of WOCAT Database	19-21 November 2007	Lectures – BSWM, Quezon City, Field Practicum – San Ildefonso, Bulacan	PHILCAT training for inter-agency members	PHILCAT
SWC and SLM Training of farmer-association and farmer-leaders	11-12 June 2008	Trained 30 members of the SAMASAKA on SLM	Training for new adoptors of SWC approaches and technologies	BSWM-DA, LGUs, SCUs, POs
National Orientation Workshop on Watershed Management	15-18 August 2008	Lubao, Pampanga	Workshop organized for the Regional Techn. Directors (RTDs) and other key personnel of the Dep. of Environment and Natural Resources	FMB-DENR
PHILCAT Committee inter-agency meeting	10 March 11 June	BSWM, Quezon City	Inter-agency meeting	PHILCAT

Plans on subjects where WOCAT is incorporated in the curriculum of Philippines University.

1. BSA (Bachelor of Science in Agriculture): a) Soil Science 160 – Soil and Water Conservation

This course is offered to Soil Science and Agroforestry major students under the BSA curriculum and is being offered every 1st semester of the SY Calendar.

2. BSES (Bachelor of Science in Environmental Science): a) ESRM 121 – Soil and Water Conservation and Management

This is offered in the same semester like SS 160.

Ethiopia

- Country Partnership Program for Sustainable Land Management in Ethiopia: The Launching of the National SLM platform with 65 participants in February 2008.
- Strategies for Scaling up and Knowledge Management for SLM in August 2008 in Addis Ababa, Ethiopia.
- Donors conference for the Ethiopian Strategic Investment framework (ESIF) for SLM in September 2008, Addis Ababa, Ethiopia. Participants: International (Europe, North America and 10 countries from Africa) plus International donor organizations in Ethiopia, NGOs, universities, research institutions and civil society

Mongolia

WOCAT Training Workshop conducted by CDE/ WOCAT in Ulan Bator, Mongolia in May 2008. The aim of the training workshop was to learn more about documentation and evaluation of SLM technologies and approaches.

CDE

Within 3 MSc-studies the new WOCAT mapping methodology is tested in Switzerland and in Tajikistan and supervised by CDE/ WOCAT. An MSc-study in Tajikistan is testing the new QM on grazing land whereas the studies in Switzerland are mainly on cropland.

4 new SLM technologies and 1 SLM approach covering conservation measures such as direct seeding and mulching were documented within several BSc-studies in Switzerland and will be entered in the global database.

A 3-days field course for MSc-students and a 1-day field course for BSc-students about Sustainable Land Management were conducted in March 2008. In the 3-days course the mapping methodology was practically tested and valuable feedback from the students could be gained.

Different MSc and BSc courses were conducted with CDE involvement and also showing/ introducing WOCAT and SLM to students.

Serbia

- Education of students on IV year of studying
- Lectures on IV year of studying at DEE
- Involving WOCAT in 1 diploma work & 1 Ph.D
- Engaging Students Forum of WASWC in QTs and QMs
- Organized terrain work with Student's Forum in Tresnjica watershed in West Serbia (July 12-15)

Internships

- Exchange of internship students through initiative of the International Land and Water Management discipline from Wageningen University by Jan de Graaff (see also chapter 2.2)
- Professional students excursion to Austria (cooperation with BOKU) on a reciprocate basis

Discussion & Questions:

- TF should become more active during the year, very difficult for the TF-leaders to receive any feedback during the year.
- The group agreed that more students should be involved in WOCAT with interesting topics in relation to SLM.
- The idea of a brochure on 'How to use WOCAT in education and research' came up. This publication could be also used for marketing and promotion in the near future.
- MSc or BSc lecture notes should be made available on the internet for other WOCATeers, e.g. sharing videos, presentations etc.



Above: presentation of the IM-taskforce with Ernek Baibagyshov, Isabelle Providoli and Romeo Labios.
Below: concentrated listeners: Jan De Graaf, Rokhaya Daba Fall, Alexander Schöning and Daniel Danano. (Photos: Hanspeter Liniger)

TOPIC 4 QUESTIONNAIRES, MODULES AND INVENTORY

Rapporteur: Gudrun Schwilch

The revised QT/ QA, the watershed module and the inventory tables were introduced. After the presentations two parallel group work sessions were conducted.

4.1 New questions in QT and QA

Report by Rima Mekdaschi Studer (WOCAT-Q new questions.ppt)

The revision of the WOCAT questionnaires on SLM technologies and SLM approaches was finally finished in March 2008. In QA the last adjustments were mainly integrating more specific gender and social issues, whereas in QT among other adaptations a completely new question related to climate change was introduced.

In QT the following questions were changed or were newly added:

- Provide the coordinates in latitude and longitude of the centre of the conservation area (1.3.2).
- What were the main causes of land degradation (2.2.2.5)
 - Direct causes: human and natural induced
 - Indirect causes
- Which of the following goals does the Technology pursue (stage of intervention)? (2.2.2.3)
- How has the Technology been developed (its origin)? (2.3.1)
- Describe the most determinate factors affecting the costs (e.g. slope, soil depth, labour etc.) (2.6.2)
- Natural environment e.g.
 - Thermal climate classification (2.7.3)
 - Under climatic extremes the Technology is tolerant of or sensitive to (2.7.5)
 - Soil water storage capacity (2.7.14)
 - Biodiversity (species/habitat richness) (2.7.18)

2.7.5 Under climatic extremes the Technology is tolerant of or sensitive to:

	tolerant	sensitive	not known
temperature increase	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
seasonal rainfall increase	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
seasonal rainfall decrease	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
heavy rainfall events (intensities and amount)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
windstorms / dust storms	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
floods	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
droughts / dry spells	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
decreasing length of growing period	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
others (specify):.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If the Technology was modified to become more tolerant give details of adaptive changes (design, material/species) or

Indicate how the Technology could be modified to become more tolerant (design, material/species):

.....

.....

.....

.....

.....

New question in QT regarding tolerance/ sensitivity of/ to climatic extremes

- Human environment e.g.
 - Population density (2.8.2)
 - Annual population growth (2.8.3)
- Access to services and infrastructure (2.8.7)
- Type of cropping system and major crops (2.8.8.3)
- Type of grazing system (2.8.9.2)
- Livestock density (2.8.9.4)
- Type of forest / woodland uses (2.8.10.2)
- Impacts: benefits and disadvantages (3.1)
- Has the Technology contributed to improve livelihoods and human well-being (eg education, health)? (3.1.5)

In QA the following questions were changed or were newly added:

- Define the area in which the SLM Approach has been applied (1.3.1)
- Provide the coordinates in latitude and longitude of the centre of the approach area (1.3.2).
- Which were the implementing bodies (2.1.6.2)
- Did the Approach involve socially and economically disadvantaged groups? (2.2.2.3)
- Indicate the annual budget for the SLM component of the Approach (training and extension, research, as well as for the implementation) (in US\$) (2.3.2.1)
- Were contributions per area provided by state, private sector etc.? (2.5.1.1)
- Did the Approach lead to improved livelihoods / human well-being? (3.2.2.2)
- What was the main motivation of the land user to implement SLM (3.3.1.1)

Did the Approach improve the situation of socially and economically disadvantaged groups?

no yes, little yes, moderately yes, greatly

If yes, specify group (gender, age, status, ethnicity etc) and improvements?

.....

If no, why?

New question in QA

Strategy for up-dating the databases:

The current information in the WOCAT databases on SLM technologies and SLM approaches needs to be updated to the newest questionnaire versions. This means that for every case study additional information/ data is required. The regional/ national representatives were asked if they have already any plans or ideas for updating their case studies. Different ideas were mentioned:

- ICIMOD and South Africa have already concrete plans or even started with the updating by revisiting specialists in the field.
- In Ethiopia the professional version of the questionnaires was used so far. The updating to the new version will be a rather tedious task. Additional money for doing this is necessary to assign somebody.
- PHILCAT: the updating of the case studies needs to be discussed in the committee.
- Some case studies are very local in a very specific human and natural environment. These examples are difficult for spreading. Therefore a prioritization which case studies have to be updated should be made.

4.2 Watershed module

Taskforce members: Sanjeev Bhuchar, Rima Mekdaschi Studer, Daniel Danano, Madhav Dhakal (not present: Rinda van der Merwe-Pienaar, Sudibya Khisa, Gbénonchi Mawussi, Nada Dragovic)

Report by Sanjeev Bhuchar (WSmodule_2008.ppt)

Background of the watershed module

The revision of the WOCAT questionnaires in 2007/ 2008 has led to a concentration on the basic questionnaire format and to a rejection of the professional version. Unfortunately a few aspects could not be covered as elaborately in the basic form as this was done in the former professional version. Therefore the combined modular system consisting of the questionnaires and of additional questionnaire modules covering specific topics was developed. The modular system is much more flexible, can handle entire 'Technology systems' and is much more flexible to deal with global issues like climate change, ecosystem services, etc. For more information to the idea behind the modular questionnaire system refer to the [12th WWSM proceedings 2007](#).

The watershed module is the first module under development. During the 12th WWSM on the Philippines the following aspects were discussed and determined:

- Call it watershed module
- Document each technology in a QT Basic
- Analyze and evaluate impact and outcomes of these technologies holistically (as a system) in a module
- Include technical and human aspects
- Spatial arrangement

The first draft version was finished before this year's WWSM with different rounds of circulation between the TF-members. The module is divided in 3 parts:

Part 1: General information	1.1 Contributing watershed management specialist 1.2 Brief identification of watershed 1.3 Area information and land use
Part 2: Watershed characteristics and its management	2.1 Overview and description 2.2 Natural environment 2.3 Human environment 2.4 Watershed management plan
Part 3: Analysis of watershed management plan	3.1 Impacts: benefits and disadvantages 3.2 Concluding statement
Annex	Documentation More information

Part 1: General information

In part 1 the required information and questions are mainly based on QT. A completely new question is 1.4, specifying the different land use type in the watershed and their area in % and the area trend.

1.4 Land use in the watershed		
Land use type (LUT)	Area %	Area trend
Cropland (total)
<i>Rainfed</i>
<i>Irrigated</i>
Grazing land
Forest/woodland
Mixed land
<i>Major LUT</i> -----
<i>Minor LUT</i> -----
Other land

New question in the watershed module related to different land use types in a watershed.

Part 2: Watershed characteristics and its management

Like in QT and QA a short summary has to be provided, covering the following aspects:

- Aims and objectives of watershed management
- Issues in the watershed (w.r.t. land degradation)
- Solutions (technical and non technical)
- Establishment and maintenance activities/inputs
- Impacts of watershed management
- Natural and human environment

The section 'Natural environment' fully coincides with QT, whereas in the section 'Human environment' new questions specifically adapted to a watershed are listed. The questions cover different issues like the heterogeneity between users in the watershed, linkages between up- and downstream users and transboundary interactions between users.

In chapter 2.4 'Watershed management plan' specific information to the different technologies applied and interrelated in the system can be given. Some questions are adapted from QT and some questions were newly added. Very crucial within this section is the technical drawing, providing detailed information about the allocation and the linkages of the different technologies in the system.

2.4.1.3 Provide information about the technologies that are implemented in the watershed and indicate

Technology and Code ¹	Conservation measure	Area per ha or units/ha (e.g. dams) of area covered or affected by T	Adoption / expansion trend ²	Technology establishment cost in US \$ (refer to QT)	Technology recurrent cost in US \$ (refer to QT)	Cost/benefit ³	
						Long term	Short term
.....
.....
.....
.....
Total costs:							

New question in the watershed module: a list of all technologies in the system with additional information has to be given.

Part 3: Analysis of watershed management plan

In part 3 the lists of on- and off-site benefits/ disadvantages are based on the lists provided in QT, but adapted to the specific impacts in a watershed system.

Discussion & Questions

The question came up what the size of watershed is. -> The decision should be left to the experts in this area.

A watershed has always two domains: upstream and downstream. The problems and solutions should be dealt with at both levels and the WOCAT questionnaires should reflect these two domains.

Group work: Watershed module

Tasks for the Group work:

- Your feedback, are we on the right track
- Read through the questionnaire
- Identify gaps
- Should the structure be similar to or aligned with QT, QA? Or give it a new face (e.g. the section on impacts: benefits and disadvantages considering the discussion on local impact assessment and indicators)
- What should be the title?
- Taskforce members to finalize?
- Any urgent requests for other modules to be developed?

Discussions & results

What is the added advantage of a watershed module, who will be using it?

- Energy as entry point for SLM in Central Asia
- Outcome of a package of interrelated technologies
- For policy makers
- Research oriented – development oriented
- A documentation of the system, looks at processes
- Overview to see the integrated action of different technologies in a specific area.

Issues and suggestion

- Scale of the watershed: a minimum scale should be defined so it remains manageable
-> integrate in the definition.
- Agree on the definitions
- Position the micro watershed in the macro watershed
- Same watershed documented by different organisations -> duplication of work. Add a question on who is working in the watershed? Strategy to get all the stakeholders together to document together
- Think how to go into documentation -> guidelines.
- Integration with other modules and tools (inventory table – baseline study)?

How to make the analysis

- Synergies with the taskforce on local impact monitoring
- Need a test phase to decide on structure, to build up gaps (present the results of test documentation in different watersheds at the next meeting)
- Title 'Watershed Module' sounds very academic. The title should capture the spirit and purpose of the questionnaire

4.3 Inventory table

Report by Christine Hauert (InventoryTable_2008.ppt)

A new inventory table for SLM technologies and SLM approaches was developed early 2008. The inventory table shall be used as a first quick survey of technologies and approaches in a specific area/region. On the one hand the technologies and approaches assessed in the inventory shall give an overview about possible technologies/ approaches for further spreading and on the other hand the technologies/ approaches with the highest area coverage shall be used for the production of a WOCAT world map.

Categories/ criteria used in the inventory tables

QT inventory table	QA inventory table
Name of Technology	Name of Approach
Land use type	For which land use type
Position (coordinates!)	Position (coordinates!)
Area	Area
Main types of land degradation	Type of Approach
Conservation measures	Implementing bodies
Climate	Objectives
Tolerance of Technology to climatic extremes	Land user involvement
Slope	Short definition/description of SLM approach
Short definition/description of SLM technology	Technical support
Land use rights	External material support
Market orientation	Motivation of land user to implement SLM
Impact on ES	Impact
Cost/benefit	Strengths and weaknesses of SLM approach
Strengths and weaknesses of technology	Photo
Photo	Ranking: World map, potential
Ranking: World map, potential	

Group work: Inventory table

Tasks for the Group work:

The group had to discuss the following questions partly based on feedback from WOCATeers before the WWSM:

Is the inventory table:

- Too elaborate for a first/ quick survey?
- Is ranking necessary for a first assessment?
- Only successful stories, what about failures?
- Add strengths and weaknesses?
- Omit other criteria, missing criteria, etc.?
- Missing criteria?
- List of impact indicators in QT – too long?
- Tolerant/sensitive of/to CC in QT – necessary here?

Discussions & results

During the group work the point came up whether the inventory table can be generated automatically from the WOCAT database. It was clarified that usually at the stage of filling in the table the data has not been entered in the database yet since the table is intended as a first/ quick survey of available technologies, before using the entire questionnaires. However, if the table is used for the purpose of providing data for the global overview map, then the automatically generation out of the database might be useful. Nevertheless, at this point of time it is not planned to implement anything in this direction.

In the inventory table the explanations are very short and the users are requested to refer to QT and QA for elaborated explanations. Therefore the user should be familiar with the QT and QA, otherwise it is too difficult to fill in the table. -> A short manual to the tables could be very useful for becoming a stand-alone tool.

A further more general comment of the group was that a field for land user's comments should be added. It was emphasised by the participants that already at this stage of the assessment the land users should be involved. -> A possible solution could be to fill in the table in a mixed participatory group.

The suggestion was made that there should be the possibility to rank the given answers like in the questionnaires.

In the section 'Impact on ecosystems' in QT the following improvement was suggested: Adding disadvantages (negative) as well by keeping categories neutral (only 'yield' instead of 'increased yield') and change the ranking categories to the following possibilities: +++, ++, +, -, --, ---

The group approved the tables in general and was asking if a possible test run in some countries is planned or already conducted. -> So far the table is used in Mongolia for a first survey of the available technologies and approaches before the elaborated documentation using the questionnaires.

The inventory tables shall also be used at the global level within the Sub-Saharan TerrAfrica project and the compilation of the SLM guidelines.

Further recommendations, feedback or comments to the inventory table are still welcome and highly appreciated by the WOCAT secretariat.



Presentations of Sanjeev Bhuchar, Talita Germishuyse with Daniel Danano and Rima Mekdaschi Studer in topic 4. (Photos: Hanspeter Liniger)

TOPIC 5 WOCAT/ LADA MAPPING

Rapporteur: Christine Hauert

5.1 WOCAT/ LADA mapping to capture degradation, conservation/ SLM impacts at national/ regional level

Report by Hanspeter Liniger and Godert van Lynden (WOCATMapping_HPL.ppt; WOCATMap_GvL.ppt)

Why SLM mapping?

There exist already maps at national/ regional level but covering mainly degradation like GLASOD (revision needed!). However, conservation or improved land management is hardly spatially covered at the regional/ national level at none at the global level.

The WOCAT/ LADA mapping offers a spatial overview of degradation AND conservation (what kind of SLM is applied where?). The mapping tool can be used to:

- plan and support SLM activities
- set priorities to combat degradation
- monitor SLM activities and their impacts
- combine dispersed knowledge and identifying data gaps

The WOCAT/ LADA mapping tool is based on the original WOCAT mapping questionnaire. It has been expanded to pay more attention to issues like biological and water degradation and places more emphasis on direct and socio-economic causes of these phenomena including its impact on eco-system services. It evaluates what type of land degradation is actually happening where and why and what is done about it in terms of Sustainable Land Management (SLM) in the form of a questionnaire. Linking the information obtained through the questionnaire to a Geographical Information System (GIS) permits the production of maps as well as area calculations on various aspects of land degradation and conservation.

One of the main challenges in relation to SLM interventions is where to invest. It is getting increasingly important to distinguish between rehabilitation, mitigation/ cure or prevention. Rehabilitation is very often conducted with high costs whereas mitigation or especially prevention can be carried out with a much better pay back. The new WOCAT/ LADA mapping methodology for capturing land degradation and SLM (green spots) should become a standardised tool for assessing the areas with the best return for investment.

Due to the very strong involvement of FAO/ LADA the mapping tool is now strongly tested in the 6 LADA pilot countries (Argentina, Cuba, Senegal, Tunisia, China, and South Africa) at national level. Within MSc-studies QM is also being tested at the local level in Switzerland and Tajikistan under supervision of the CDE. DESIRE countries are using QM as well on the local level.

The basic mapping units in the mapping tool are Land Use System (LUS) upon request of the FAO. LUS combines a variety of different attributes like bio-physical or socio-economics related to land use and land use practices. LUS can be combined with administrative units, which can be freely chosen. The LUS units in combination with administrative units permit the user to evaluate trends and changes in time of the land degradation and conservation practices applied. Each LUS within an administrative unit constitutes a unique mapping unit for which information on degradation and conservation should be provided in a matrix tables (one table per mapping unit).

QM is working with a polygon map showing spatial distribution of degradation and SLM for each area on the map. It is applicable at all scales but full spatial data coverage is required, so more appropriate at detailed (sub-national, catchment) scales. The map database and mapped outputs provide a powerful tool to obtain an overview of land degradation and conservation in a country, a region, or world-wide.

The WOCAT/ LADA mapping questionnaire is constructed as a participatory expert assessment (PEA) including expert knowledge/ experiences as well as existing documents and it should reflect the current stage of knowledge.

Table 2: Land degradation (Example)

Name: X Y Country: South Africa
 Mapping Unit Id (LUS + admin. unit): **113** (*Savanna + Ratlou municipality*)

Land degradation (Step 3)									
a) Type (state)			b) Extent	c) Degree	d) Rate	e) Direct causes	f) Indirect causes	g) Impact on ecosystem services	h) Remarks
<i>i</i>	<i>ii</i>	<i>iii</i>							
<i>Ha</i>	<i>Pc</i>		15%	2	1	<i>g1, e1, f4</i>	<i>p, h, t</i>	<i>P1-3, E2-2</i>	<i>Degradation is concentrated in NW communal grazing are of District</i>
<i>Bs</i>			10%	2	-3	<i>g1, g3</i>	<i>e, g</i>	<i>P1-2, S3-1</i>	<i>g3: change of livestock composition from large to small stock</i>

Table for land degradation in QM. For each mapping unit a table has to be filled.

Discussion & Questions

The question came up if there is a possibility to transfer old QM data into the new database. According to the answer by Wolfgang Prante this will probably not be possible, since the two systems are rather different. This will have to be further investigated.

5.2 Using the WOCAT/ LADA Mapping Questionnaire in South Africa

Report by Lehman Lindeque (*LADA National_Lehman.ppt*)

See also report to the presentation of Lehman Lindeque at the symposium (see also presentation held at the WOCAT symposium).

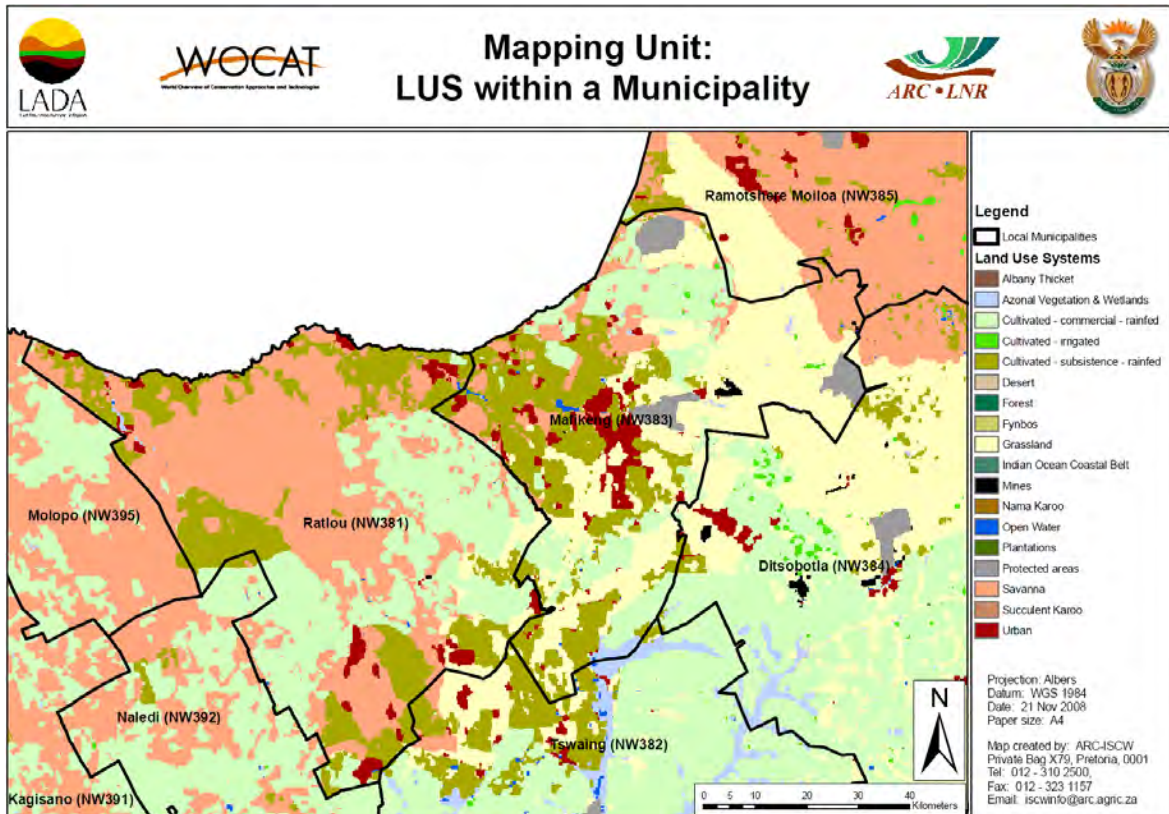
South Africa's approach to the WOCAT/ LADA National land degradation assessment

South Africa is divided into 9 provinces and each province divided in more or less 4 – 6 districts = 45 districts country-wide. 1 two-day Participatory Expert Assessment (PEA) workshop per district to collect data is planned or already conducted. Each district is divided in more or less 4 – 6 local municipalities. A matrix table was completed for all the major land uses within each local municipality (usually between 15 and 30 matrixes per PEA Workshop). By October 2008 about 22% of the data capturing (PEA Workshops) in the country have been finished. A national stratification map with 2447 Mapping Units (land use within a local municipality) is used.

The national assessment in South Africa is rather detailed. The reasons are numerous:

- South Africa is a very diverse country.
- Opportunity to better understand land degradation and conservation in SA – DPSIR variables.
- There is a need in provinces for info on land degradation & conservation also for targeted investments.
- Information for the Soil Protection Strategy.
- Identify priority areas country wide by comparing land degradation and conservation at different levels.
- Comparison with 1997 Desertification Status Survey (Hoffman et al.) to get long term trends.

Organisation of the PEA workshops: Initially a letter to the HOD (head of the department) in each Province (Dept. of Agriculture) is sent for explaining the project and request assistance. A planning meeting in the provinces including key stakeholders (completed in 3 of the nine provinces) is usually conducted prior the workshop. Topics discussed during the meetings are: presentation on objectives and methodology, stakeholder analysis, identification of district workshop coordinators and implementation plan. The district workshop coordinator organises the workshop and invites the participants. They also arrange the workshop venue and logistics in their district.



Example of a map from South Africa, a Mapping Unit consists of a LUS within a municipality e.g. the pink coloured area called Savanna (LUS) in Ratlou municipality (administrative unit).

The information and data captured is filled in a special Excel-sheet. For one district all examples with grassland will be compiled in the same sheet thus facilitating the direct comparison.

3 ways of data capturing can be distinguished: (1) Participatory Expert Assessment (PEA); (2) existing data and information; (3) verification of new data. During the PEA the data is filled in directly into the database, visible for all participants. This procedure ensures also a certain kind of quality control.

An example of a filled in LUS can be found in the presentation.

Discussion & Questions

At which level is QM basically used in South Africa?

-> at the province level

Costs + time used for the mapping in South Africa?

-> Difficult to quantify and is not exactly known since people/participants from the districts have their own budget.

What if no LUS map is available?

-> Any unit can be used as mapping unit, as long as the unit is not getting too big. An own map can be made overlying the district or administrative unit map.

5.3 LADA Senegal Mapping

Report by Diallo Ousmane (Senegal_Diallo.ppt)

The mission of the 'Centre de Suivi Ecologique (CSE)' is to provide decision making products and services. Senegal is one of the 6 LADA pilot countries and therefore the WOCAT/ LADA mapping methodology is tested there. The common aims within this project are to map and document land degradation and land improvement at a national scale in a unique common way. The tool for achieving this is the WOCAT/ LADA mapping questionnaire. The targeted outputs are maps of land degradation status, causes and impacts and the conservation status and impacts for major land use systems.

Mapping approach in Senegal

- Preliminary studies:
 - Collecting information and data on land and land uses.
 - Analyses of collected information to produce a national land use system.
- Decision tree design: emphasizing relevant discrimination criteria leading to the LUS characterization.
- Expert consultations (LADA taskforce): workshop validation
- Building the GIS database and mapping of the LUS
 - pretreatment of the data and building the GIS database on LUS
 - elaboration of the resource base map (with complete description of attributes)
 - elaboration of LUS map with complete description of attributes
 - experts consultation
- Test of the LADA/WOCAT QM questionnaire through each LUS of one Department

Lessons learnt from the test:

- At least 3 interviewers needed (Livestock, Agriculture, Forestry).
- WOCAT/ LADA questionnaire adapted to the context.
- Map viewer required to raise interests of interviewers.
- The specific questionnaire format for Senegal needs to be improved (hard vs. digital format).

For the National land degradation assessment (NDLA) a training in November 2008 is planned for interviewers and NDLA. 4 teams consisting each of 3 interviewers (1 CSE and 2 LADA taskforce) will be trained. One team will cover 3 regions (roughly 4 LUS per day). The people to be interviewed will be local staff of different Departments, land users, NGOs and other resource persons.

For the Local Land Degradation Assessment a training was attended in November 2007 in Tunisia.

Group work: Mapping

The workshop participants looked at the QM questionnaire in 4 groups clarifying uncertainties and reviewing latest changes.

Group 1: Ecological rehabilitation versus human welfare: the human aspects are missing in QM. Land user participation in the mapping process should be clearer and made visible. Some of the tools have to be simpler, e.g. using icons. Cost-benefit aspects are not sufficiently included. The results from the QM mapping could be used for vulnerability mapping, which would also help to motivate the contributors and users.

-> It was mentioned that the mapping exercises is basically intended to produce maps (hence it requires mappable items). More detailed information can be found in QT.

Group 2: This group fully completed one QM form successfully and gave a very positive feedback. They only had a small confusion regarding the combination of various degradation types in one polygon, which could be clarified.

Group 3: No major comments or questions arose in this group and they stated that the questionnaire is well done. They only felt that combining poverty, health and food security into one group (under impacts on ecosystem services) is too much and health should be dealt with separately (e.g. under water issues).

Group 4: This group had no major issues to mention. They only had an issue of clarification regarding the category 'mass movement' and requested confirmation that it includes siltation. They suggested to add 'disturbance of biomass cycle' as a degradation type.



*Presentation to Mapping from Godert van Lynden, Lehman Lindeque and Ousmane Diallo.
(Photo Hanspeter Liniger)*

TOPIC 6 DECISION SUPPORT AND UP-SCALING SLM

Rapporteur: Isabelle Providoli

6.1 Decision support systems and tools

6.1.1 WOCAT – DESIRE Decision Support Tool

Report by Gudrun Schwilch (DSSDevGwatt.ppt)

The latest version of the DESIRE Decision Support Tool using the software “Facilitator” was presented and experiences made, especially with the 2nd DESIRE stakeholder workshop, including a step-wise guidance, were shared. The Decision Support Tool and hence the 2nd stakeholder workshop belong to workblock 3 of the DESIRE-project, in which CDE has the lead. The main aim of the 2nd stakeholder workshop ‘Part III – Selection and decision’ is to select promising (existing and potential) strategies for land conservation to be implemented and tested in the selected site. The methodology developed is based on embedding the WOCAT database (-> selection of options) as well as the ‘Facilitator’ software (-> scoring and decision support) into a two-days stakeholder learning workshop (see also presentation held at the WOCAT symposium).

The presentation introduced the main steps of the 2nd stakeholder workshop, which are also described in comprehensive guidelines including didactic hints, theoretical and conceptual help as well as software instructions:

- Step 1: Setting of objectives
Decide on which objective(s) to focus on for the selection of mitigation strategies and get aware about what / where to look for ‘new / external’ solutions.
- Step 2: Selection of potential technologies from the basket of options (= WOCAT database).

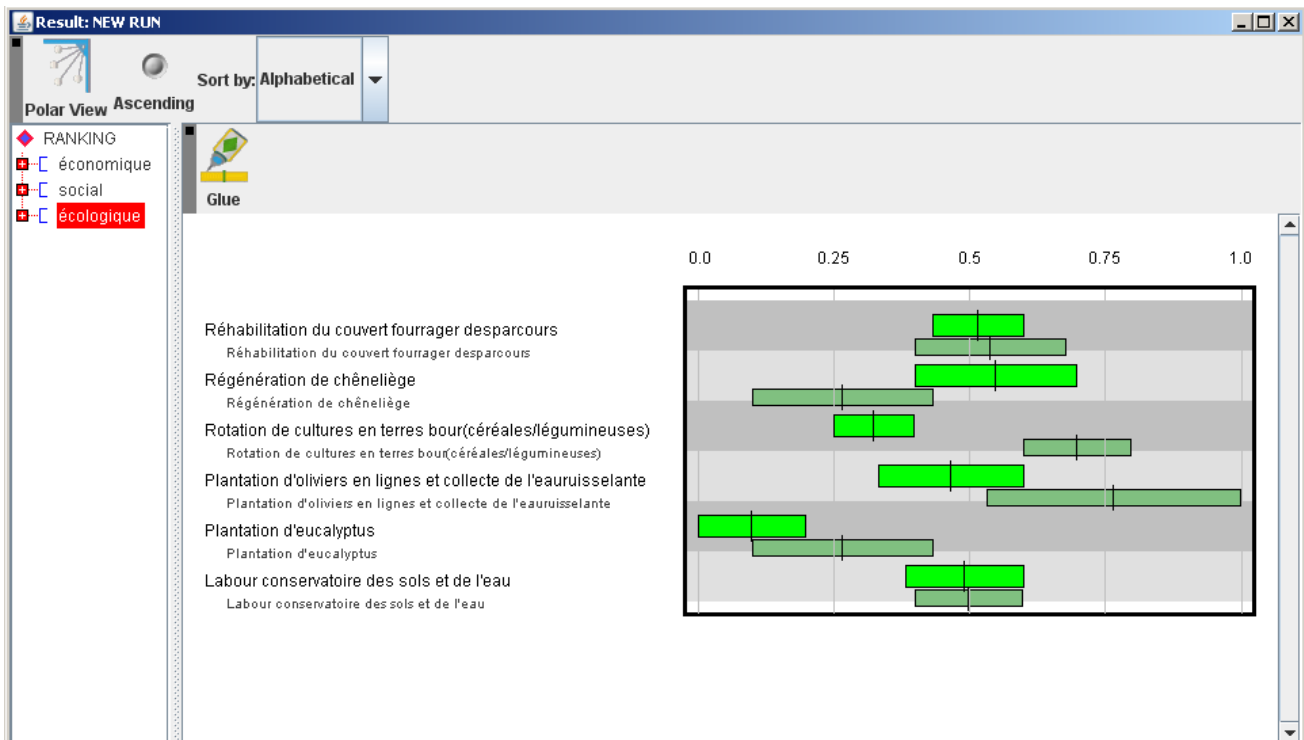
New updates in the WOCAT database for selection of options were demonstrated as e.g. “search by criteria” and “search by key questions” in WOCAT database, 2 new output formats (poster format A3 and card format A5) can be generated.

The key question relate to degradation, land use, climate, slope and market orientation and were developed based on input from the last WWSM in the Philippines. The outcome of this exercise are potentially suitable technologies, which need adaptation to the local context in any case.

- Step 3: The stakeholder group defines 9-12 criteria which are relevant for the local context (environmental, ecological, and social criteria) and which reflect the most important qualities the options should have.
- Step 4: Scoring exercise
Selected options are assessed by criteria.
- Step 5: Ranking criteria
Ranking is been done according to the 3 dimensions (environmental, ecological, and social) and will assign weight to the criteria.
- Step 6: Run analysis in Facilitator software
The result of the software run is a visualization of the relative merits of the different options which needs to be analyzed. An option is considered sustainable if it receives good valuation in each of the three dimensions.

A demonstration of the software with results from its application in Morocco was shown by Prof. Abdellah Laouina.

- Step 7: Negotiation and decision making
At the end the best options are negotiated with the stakeholder. The criteria can be revisited and a final agreement is achieved.
- Step 8: Embedding of options in overall strategy and seeking commitment by stakeholders. Measures to overcome framework obstacles have to be taken.



'Facilitator' software run, comparing the relative ecological (top) and economic merits of various SLM technologies (example from Morocco).

Opportunities and challenges

- The participants of the stakeholder workshop are steering the process by weighing and priority setting.
- Danger of manipulation and a big challenge for moderator.
- Chance to provoke good future collaboration between stakeholders, but also a risk of spoiling it.

Experience within DESIRE project:

- Struggle with "Facilitator" software -> requires making it more stable.
- Some European countries showed prejudice towards external solutions (mainly from developing countries).
- It is important to include the local solutions documented with the WOCAT questionnaires before starting this process.

6.1.2 Sustainet – ScalA Decision Support Tool

Report by Alexander Schöning (Sustainet.ppt)

1) Projcet idea

Sustainet (Sustainable Agriculture Information Network) is a cooperative project to combat world hunger through sustainable agriculture. Rural development and sustainable land use have been neglected in international cooperation for a long time. Why is sustainable land use not widespread even though numerous examples of sustainable land use systems show how hunger and poverty can be combated? There is lack of systematic studies on the necessary conditions for dissemination/scaling-up.

Sustainet Approach:

- Alliance of major German institutions involved in development cooperation
- 3 networks in pilot regions, involving over 30 of the most important local NGOs
- Documentation and analysis of 39 "good agricultural practices" for sustainable land use
- Systematic analysis of the factors relevant to dissemination/scaling-up
- Development of tools for self-evaluation and assessment of scaling-up potential

Sustainet has pilot regions in Asia, Africa and Latin America (Peru, Bolivia, Kenya, Tanzania and India). Sustainable Land Use is defined in three dimensions, ecological, economical and social. Good agriculture practices should show results, fulfill sustainable criteria and meet local demand.

2) Concepts

What are the distinctive features of a good agricultural practice?

- Results and effects are measurable and replicable
- Fulfills sustainable criteria
- Has proven its value in the long-term
- Meets local demands
- Is adaptable to various local conditions

Good agricultural practices must not be detrimental to any single sustainability criterion and the development measure must have a positive impact on at least on criterion.

3) Instruments

The instruments of Sustainet are:

- Networks
 - networking among institutions at local, regional and international level to support the scaling-up of sustainable practices
 - Establishing a communication platform to exchange information and experience and to plan joint activities
- Self-evaluation instruments build the basis for all participating local partner organisations, used for the documentation of good agricultural practices. Analysis of the good practices involves working through and evaluating the following aspects, among others: project structure, advisory approach, agricultural technique, local site conditions, external framework conditions, project impacts, instruments for dissemination.
- Writeshops are intensive workshops in which the participants finish off their self-evaluations on sustainable agriculture and good practices, discuss them with the other partners, and document them in book form. In this way, optimum use is made of the participants' expertise and a high level of identification is achieved with the end product - the publication.
- Analysis matrix for assessing the scaling-up potential of good practices (Scala)
 - Semi-quantitative analysis and evaluation on basis of self-evaluation (assesses sustainability, climatic effects and scaling-up potential.
 - Assessment of sustainability, climate effects and scaling-up potential.

Sustainet is

- a tool to evaluate projects and technologies.
- a decision support tool for donors, it helps to evaluate project proposals

For more information refer to [Sustainet](#)

6.2 Reflection on Symposium: Decision Support

Presented by Gudrun Schwilch

Reflection on database enhancement/ population

- Make WOCAT database a standard within national programmes
- Include Latin America: through FAO, CIAT, etc.
- Acknowledge contribution as peer-reviewed document -> requires a panel (and a label?)
- Costs/benefits very important, but hard to estimate -> indicators might help (costs, yields, etc.). +/- covered in Qs already
- Are the WOCAT tools wide enough to cover all relevant aspects of SLM?
- Use WOCAT DB as working environment internally (before making it visible for the global public)
- Further debug database software
- Multi-language problems!

Reflection on decision support tools

- DB information for decision making should not stop at national level but also taken to global level
- Link local and regional DSS (DESIRE DSS with LADA/WOCAT national mapping (maybe include NCCR methods on socio-economic aggregated data, pattern analysis, etc.)
- Develop interactive DSS (DESIRE II) for national / regional level (include criteria selection, priority setting, weighing, etc)

- Not only relate DSS to SLM but to broader sustainable development (SD) (livelihood). E.g. introduce components in mapping methodology related to SD. -> But: broader scope vs. being specific
- Include info on potential environment where T/A can be applied? Overcome with modular tools
- Variability between local places -> do DSS first at local or at national level??
- Capacity building on use of database and moderating DSS process
- Language problem!
- Awareness creation!

Group work Decision Support

Three groups were formed to reflect on the outcome of the symposium group works on 'Database & Decision Support'. The following questions had to be answered.

- 1) Reflect on process of weighing/ priority setting within local DSS (DESIRE): acceptance of tool, suggestions for improvement (QT)
 - A challenge for the moderator might be the diversity of the group (rich – poor; man – women). How to make sure to involve all stakeholders?
 - Land users might have suitable technologies which are not yet documented.
 - Might miss viable options by incorrect keywords
 - Question of scale? Micro / landscape level.
- 2) DSS for approaches based on Sustained ScalA, integration into (DESIRE) local DSS (QA)
 - DESIRE DSS is targeting individual QTs linked to a QA which are selected by a stakeholder group.
 - ScalA acts more at a project level scale looking at the approach also targeting donors.
 - Both tools, DESIRE DST as well as ScalA, act at different levels and therefore it will be a challenge to integrate the two tools. It was not possible to decide in the group work in the limited time how to deal with this.
- 3) Key ideas for interactive DSS at national level (QM): Up-scaling = a) disseminate/ spread SLM or b) planning SLM at national/ regional level?
 - Invite national people to provide information/ inputs
 - Try to get information/ data to global issues out of QM
 - QM reflects current situation (status) which is useful for decision makers



Presentations to decision support by Alexander Schöning with Lehman Lindeque as moderator, Gudrun Schwilch and Laouina Abdellah.

TOPIC 7 WOCAT AND GLOBAL ISSUES

Rapporteur: Isabelle Providoli

7.1 Reflection on Symposium: Global Issues

Presented by Rima Mekdaschi Studer (GlobalIssues.pdf)

The results from the group discussion at the symposium were summarized in short presentation. For more information see also presentation held at the WOCAT symposium.

Extract from WOCAT position paper to adaptation to climate change:

WOCAT can offer a basket of SLM options (technologies and approaches) that work under specific or under a range of conditions; they are documented in the database. WOCAT has an established network of SLM specialists and organizations / institutions, which allows the sharing and exchange of experience. Apart from case studies on SLM, a comprehensive WOCAT mapping methodology can be used to assess current practices as well as their impact on ecosystem services and human-wellbeing.

What WOCAT cannot provide, is to give the ultimate solution, it always depends on the specific situation and the priorities of those implementing it. But what it provides is a more informed decision making and the use of the wealth of untapped knowledge.

What is needed? A well populated database on SLM Technologies and Approaches (full and 'complete' basket of options) covering the wide variety of geographic areas, land forms, climate zones etc. In order to do so, a major global effort is needed involving projects, government and NGOs involved in SLM to document and evaluate their experiences and provide their knowledge to a common database and to provide easy access to this wealth of knowledge.

Decision support tools are needed to assist in the use of this knowledge: data analysis, selection and evaluation of 'viable' options, selection of criteria for improved decision making. Special attention needs to be given to the sensitivity towards climate change and to ongoing adaptations/innovations to climate change.

For more information to WOCAT's position and ideas to climate change refer to the [paper](#): 'Use of WOCAT tools and network to prepare for SLM adaptation to climate change – identification of conservation technologies suitable for climate change'.

Group work: Global Issues

Four groups were built to reflect the symposium group works and the following questions had to be answered.

1. Did the symposium show any really new issues to be included in WOCAT

- The four groups agreed that no new topics should be added and that WOCAT should stick to SLM.
- Energy might be a new topic; however the groups decided that it can largely be addressed under climate change.
- The themes which are most important and have to be addressed apart from SLM: climate change, food production and ecosystem services.
- WOCAT can not contribute to a solution to the current world economic crisis, however WOCAT can provide guidance on various cost saving technologies in agriculture, etc.

2. What are the criteria for an opening up towards new issues?

- Needs resources, people, time and finances
- Has to be within scope of WOCAT and there has to be a clear link to SLM (documenting and mapping). The WOCAT annual meeting (WWSM) will have to decide.

3. How to get as fast as possible to relevant info/ data related to CC adaptation and ecosystem services

- Literature review on link between CC and SLM
- Use the WOCAT questionnaires (new section on CC) – use that information in decision making and for adoption of new technologies
- However, it's difficult to assess adaptation to climate change, but in some case studies it would be required.
- Tools, e.g. online database have to be ready
- Comment: by doing it fast we might also loose quality

4. Where are best opportunities for and synergies with existing / upcoming projects / programmes

- International bodies and agencies: IPCC, GEF, UNCCD, Asian & African Development Bank, World bank
- Bilateral organisations and local institutes

How?

- People at national levels should contact donor organisations
- Incorporate other projects at different levels (project, provinces, etc.)
- Share information between projects at workshops and meetings – invite different stakeholders and sell the WOCAT philosophy
- Framework programs from EU with different topics – WOCAT coordinators from countries can get involved on different working titles for example
- Make sure you are ready with the answer before they ask the question!
- Knowledge management and impact monitoring (e.g. GEF funded projects)
- Linking national and global partners (hence making use of partnership capital which exists within WOCAT)
- Climate change (especially adaptation): UNCCD, GEF, IC

TOPIC 8 ACTIVITY PLANS FOR NEXT YEAR

Rapporteur: Rima Mekdaschi Studer

8.1 National and Regional Work Plans for 2009

For more details refer to work plans of national and regional WOCAT initiatives in Annex 1

The national and regional work plans were presented as much as possible in order of WOCAT's 4 dimension of knowledge: (1) knowledge about SWC and SLM; (2) tool (and method) development; (3) information sharing and networking; (4) research, training and education.

8.1.1 BANCAT

- Conduction of BANCAT working group meetings in 2009 and preparation of progress report.
- Ongoing documentation of QTs and QAs carried out by university teachers and students from different agro-ecological zones.
- About ten orientation workshops on WOCAT tools are planned for training of teachers and students of four Bangladesh Universities.
- For awareness raising of WOCAT and BANCAT the participation in different trainings and seminars is planned.
- Updating of the BANCAT webpage.

8.1.2 China – GEF and SWCMC

Knowledge about SWC and SLM

In Tibet Autonomous Region it is planned to document the implemented measures in Rongme and Yardong in east Tibet to apply the WOCAT methodology. Altogether the documentation of 10 technologies in the northeast/ northwest of China and in Tibet is foreseen. New data shall be entered in the WOCAT database.

Tool (and method) development

The translation of the new questionnaire and module versions into Chinese is planned for 2009. It is also planned to create a new Chinese WOCAT Website.

Information sharing and networking

Two publications of the documented technologies and approaches are in development or already finished.

For promotion of WOCAT in China more information about WOCAT on the GEF Project Website should be released to share within the 6 project provinces. Furthermore a project album containing information about WOCAT will be published and spread to ADB, WB, WWF, and UNDP, FAO, UNCCD etc

Within the GEF project the remaining items of the collected cases will be polished and published as well. CPMO would carry on the WOCAT activities. Furthermore CPMO would like to keep and expand collaboration with WOCAT in future. The second term of the land degradation prevention project is in the pipeline and its framework under development. The second term will include southwest China e.g. Sichuan, Guizhou and Yunnan provinces.

Research training and education

A regional workshop will be organized in Tibet (possible in collaboration with HIMCAT/ WOCAT) on Sustainable Land Management in the Highlands. In this workshop some WOCAT case studies from the region will be presented.

8.1.3 ICIMOD – HIMCAT

Knowledge about SWC and SLM

The HIMCAT extranet will be continued and further activated and new information about HIMCAT countries will be included on the website. The publishing of two HIMCAT newsletters per year (in spring and autumn) will be further continued. Documentation of new QT's and QA's is planned in Bhutan. Furthermore the SSMP data shall be entered into the database and the factsheets shall be translated into Nepali.

Tool (and method) development

ICIMOD will continue working on the watershed module. A first version should be available by the end of October 08. The developments of a participatory impact monitoring tool will be actively supported by ICIMOD.

Information sharing and networking

The newly initiated BHUCAT initiative in Bhutan will be further supported and strengthened. In addition to that the HIMCAT network will be expanded to Myanmar and Afghanistan and first WOCAT trainings will be held in both countries. The already existing NEPCAT initiative in Nepal will be enlarged by including new NEPCAT members. In collaboration with the BANCAT members BANCAT fact sheets will be prepared. Moreover it is planned to support the new WOCAT initiatives in Pakistan and also in Tibet and to strengthen the collaboration.

Research, training and education

ICIMOD will include WOCAT modules in their up-coming LCSWC trainings. Through the GTZ Tibet project a workshop on erosion will be held in June 2009 and a WOCAT presentation will be included. A further training is also planned with IC Pakistan and in Myanmar.

8.1.4 India

Knowledge about SWC and SLM

During 2009 the OWDM would continue to document more technologies and approaches under its watershed projects. It is planned to document four technologies and approaches in all the four project districts. This would be coordinated by the OWDM WOCAT Core Group. The detailed planning for the documentation consisting of field visits, collection of secondary information, data entry and finalization workshop would be done by the OWDM WOCAT Core Group.

Information sharing and networking

Action plan for 2009: The OWDM would continue to use WOCAT tools in various programmes in Orissa. During 2009 WOCAT activities it will be further strengthened in WORLP districts. The main focus areas on WOCAT activities would involve capacity Building; promotion and advocacy of WOCAT through sensitization programmes; documentation using QAs and QTs. This year OWDM plans to organize a workshop involving WOCAT secretariat during February-March 2009.

Capacity building activities for 2009: OWDM plans to organize a sensitization workshop in Bhubaneswar, India so as to expose senior and middle level State Government officials involved in Soil and Water management to WOCAT involving WOCAT experts as resource persons. Furthermore sensitization workshops in all the project districts are planned to keep the momentum and keep them informed about the new initiatives by WOCAT.

Budget provision for 2009

In order to undertake various WOCAT activities, the OWDM would provide around US\$ 42,280. This would involve staff costs, equipment costs, training costs, travelling costs, field visits and other incidental expenses. The detailed costing is shown in the WOCAT work plan 2009.

8.1.5 IC Pakistan

Knowledge about SWC and SLM

- Identification of concrete initiatives in the field is planned by orientation of the IC Pakistan team about WOCAT.
- Documenting new technologies and approaches in Pakistan

Tool (and method) development

- Improvement of tools for a larger use by testing of Up-scaling tool (scalA) in dryland management techniques (e.g. small scale activities in dryland forestation, rainwater harvesting).
- Actively participate in WOCAT TF on 'watershed module'.

Information sharing and networking

- Strategic vision clarified and objectives and results widely communicated/ disseminated
- Actively participation in WOCAT taskforces

Research, training and education

- Orientation/ capacity building on the use of QA and QT of relevant field professional (IC and its partners) for spreading and gaining of visibility of IC experiences.

8.1.6 Mongolia

Knowledge about SWC and SLM

- Documentation of 9 new technologies.
- Produce outputs (e.g. Mongolian national database, overview book on SLM practices for Mongolia, manuals and guidelines, maps, website / Internet).
- Populate the database with quality assessed and peer reviewed case studies.
- Select good/ best bet practices for implementation and up-scaling (WOCAT mapping tool: potential to map degradation (red spots) and conservation (green spots); WOCAT decision support tool).

Tool (and method) development

- Translation of the new database in Mongolian.
- Testing of the watershed module and QM.

Information sharing and networking

- Become a national competence centre (have agreements with other institutions /external projects, acquire mandates, link to global WOCAT and other relevant networks)

Research, training and education

- Lectures and workshops to students on knowledge about SWC and SLM
- Support and mentor selected students during their practical research work
- Support research studies of MSc or PhD abroad related to desertification in Mongolia

8.1.7 Kyrgyzstan

Knowledge about SWC and SLM

- Documentation of new QT and QA on pasture management and SLM

Tool (and method) development

- Coordination of IM-taskforce

Information sharing and networking

- Awareness building on SLM and establishment of resource user's institution
- Organisation of round table at national level
- Development of resource management strategy
- Institutional strengthening of local committees

Research, training and education

- Supervision of MSc and BSc students

Remark: So far about 190 case studies are documented in Kyrgyzstan, most of them in a special poster format in Kyrgyz language. Therefore the request came up from Hanspeter Liniger to consider also using the basic WOCAT questionnaires and the 4 page summary format to make the documented case studies comparable to other technologies/ approaches.

8.1.8 Tajikistan

Knowledge about SWC and SLM

We can include the following tasks into mitigating human induced land degradation processes:

1. Organize training courses for local land users, to illustrate the causes of land degradation and the link between non-conservation land use and decreased soil fertility and their incomes.
2. Popularise (propagandise) and raise awareness towards successful experiences in the field of SLM and SWC technologies used in rainfed areas.
3. Describe the new SWC technologies by using WOCAT questionnaires and training new WOCAT specialists on filling the WOCAT questionnaires.

This work will increase the knowledge of the different land users and decision makers in the whole highland-lowland system of Tajikistan about sustainable land management of natural resources and reducing degradation problems of the land, losses of biodiversity and incorrect water use. In the Bogar (rain fed) zone of Western Tajikistan it will help to decide questions of reorienting the economy and developing a SLM system.

The main goal of the research is to promote the social and economic welfare of the rural population and to promote sustainable development of land use systems in the highland-lowland/ semiarid areas. WOCAT methods will help to discover possibilities for SLM in the rainfed hill zone of Tajikistan.

Information sharing and networking

It is planned to create a WOCAT 'information centre' in Tajikistan for further popularize SLM through WOCAT technologies. The 'information centre' should be responsible for:

- continuing creating a WOCAT database
- analysing and popularising WOCAT
- the translation of the SWC technologies book in Tajik, creation and printing of the WOCAT book
- the creation of a WOCAT database of SWC technologies within different types of land uses for the irrigation and rainfed areas and a map showing the extent of SWC practices in Tajikistan

Tajik Academy of Agricultural Sciences can provide us with room and car, but not with other necessary things.

8.1.9 Philippines

Knowledge about SWC and SLM

- Proposal for a soil conservation map of the Philippines.
- Update and documentation of SLM approaches and technologies.

Information sharing and networking

- Inventory of institutions/ organization concerned with SLM.
- Distribution of WOCAT promotion materials.
- Presentation of WOCAT material on conferences.

Research, training and education

- Three PHILCAT committee inter-agency meetings are scheduled for 2009 (March, June, September).
- Using WOCAT as instruction materials for Soil Science, Environmental Science and Forest Resource Management.

8.1.10 South Africa

Knowledge about SWC and SLM

A priority list for expanding the QA and QT database is planned for 2009. The current database shall be updated with new questions and new value added to the existing and acquired data. The WOCAT questionnaires shall become the standard for reporting and documentation.

Tool (and method) development

By the end of 2008 the online QA database will be finished. The QT online database shall be finished in October 2009. Furthermore the QM Matrixes for the rest of South Africa as part of the LADA/ WOCAT National Assessment of Land Degradation and Conservation will be completed in 2009.

In collaboration with CDE a decision support system for national level decision making based on the analyses of the QM matrix data and QM products is planned for 2009.

Research, training and education

For capacity building in South Africa more sustainable staff shall be trained and getting dedicated to WOCAT.

8.1.11 Ethiopia

Knowledge about SWC and SLM

- Collection of land degradation and land management base line information for monitoring SLM
- Completion of strategy document for SLM scaling-up
- Updating EthioCat database with new case studies

Tool (and method) development

- Testing of the SustaiNet Scala methodology for scaling-up
- Preliminary work for possible 'homestead development' module

Research, training and education

- Engage students from Ethiopia/ Switzerland

8.1.12 DERAD Madagascar

Within the next year DERAD has planned to make a detailed report of the grazing land management in the South-East of Madagascar. The WOCAT tools used for the assessment are the mapping questionnaire and the questionnaire on SLM approaches. The data collected with QM and QA shall be pre-treated and a mid-term report is planned by the end of 2008. Till March 2009 the missing data shall be collected and the final report written by DERAD.

8.1.13 Senegal (Institut National de Pédologie)

Knowledge about SWC and SLM

- Collection of detailed information
- Documentation of QT and QA
- Starting with the WOCAT/ LADA mapping – preparation of a base map

Information sharing and networking

- The 'Institut National de Pédologie' in Senegal intends to establish a national and sub-regional network of WOCAT resource persons in Senegal.
- Take up contact with former WOCAT partners in Senegal and in West Africa and selection of WOCAT partners and final participators.

Research, training and education

- Training workshop in West Africa planned for January 2009.

8.1.14 Ghana

GHANCAT work plan has been established for the year 2009. With the experience and acquaintance with WOCAT methodologies, effective research will continue in 2009 to identify and to document more SLM technologies and approaches in Ghana. Afterwards, the case study will be uploaded to the global WOCAT database.

Plans have been made to print and distribute the documented SLM technologies and approaches to land users, decision makers, stakeholders, agricultural Institutions, etc. in Ghana during the second quarter of 2009.

We are having meetings and discussion with other WOCAT initiators in West Africa region for possibilities of jointly starting a regional initiative next year (2009).

8.1.15 SWALIM, Somalia

Knowledge about SWC and SLM

It is planned to develop a land degradation map for Somalia (SLM Knowledge-base). Data collection and analysis is planned within LADA local.

Research, training and education

A planning workshop for LADA is scheduled for 2009 and also a dissemination workshop for the Land Degradation Monitoring framework for Somalia-National.

Information sharing and networking

WOCAT shall be further mainstreamed in SWALIM IV (2010-2012) and a plan be developed how to incorporate IT in SWALIM IV proposal.

8.1.16 Nigeria

Knowledge about SWC and SLM

- To ensure good outputs the quality control of the already documented technologies should be made.
- The documentation of new QT's and QA's is planned and to enter them in the NIGCAT database.

Information sharing and networking

- More awareness raising on WOCAT and producing good outputs to show to donors is planned for 2009. An overview book is in development and shall be distributed to research centres, Agricultural centres, NGOs, Universities etc.
- A proposal alongside with the new overview book shall be submitted to donors for acquiring additional funds for the WOCAT activities.

Research, training and education

- A national training on SLM and the WOCAT tools is planned to create a pool of trained WOCAT specialists.
- The adaptation of technologies by farmer/ land users should be encouraged by providing trainings.

8.1.17 Morocco - DESIRE

Knowledge about SWC and SLM

It is planned to contact the authors of old QT data for up-dating the case studies. The updating 3 QT and 3 QA has been already prepared in 2008 by researchers and students in the framework of DESIRE. QM shall be up-scaled to the province level of Rabat, so far QM has been already done at the commune level.

Tool (and method) development

The implementation of experimental techniques for SWC in Sehoul region is planned for 2009.

Information sharing and networking

Link to other universities and institutions and introduction of WOCAT is planned. More networking is planned also with the Agricultural Department.

Research, training and education

Training of Master students will be conducted the whole year. For the selection of options a workshop with stakeholders (farmers, technicians) will be organised in December 2008.

8.1.18 Tunisia – DESIRE

The 'Institut Des Régions Arides' (IRA), the 'Commissariat Régional au Développement Agricole' (CRDA) and the 'Association des Jeunes de Zammour' (AJZ) are new WOCAT collaborating institutions. They are strongly linked with the DESIRE and the LADA projects (same study sites in both projects).

Knowledge about SWC and SLM

A WOCAT database shall be established and implemented in 2009. By using the WOCAT questionnaires SWC shall be identified and documented.

In the study site Jeffara (South East of Tunisia) the WOCAT approach shall be implemented. It is planned to assess local and potential solutions in this area. Furthermore selected techniques from the WOCAT database shall be implemented and monitored.

Information sharing and networking

Through backstopping activities the knowledge of WOCAT shall be further spread.

Research, training and education

A national meeting on the utilization of SLM technologies and approaches is planned. Trainings for SWC specialists are foreseen until 2011.

According to the WOCAT programme research shall be applied.

8.1.19 ICARDA - Syria

Knowledge about SWC and SLM

- Documentation of 8 Approaches and Technologies.
- Testing QM and link to other GIS data.
- Trying to get a JPO working for ICARDA.

Information sharing and networking

- Implementation of SLM in farmer's field.
- Scaling-up of SLM will be discussed on farmer meetings and field days.

Research, training and education

- Research on the impact of SLM with field measurements of soil erosion.

8.1.20 Serbia

Knowledge about SWC and SLM

- Ongoing documentation of QT/ QA in Serbia.
- Collection of data for QM in 2 – 4 districts

Information sharing and networking

In May 2009 the WASWC conference will be conducted in Serbia. WOCAT shall be actively promoted at the conference. For further promotion of WOCAT a Serbian webpage is planned and also a preliminary version of a national overview book. Furthermore the contact with national and foreign donors/ institutions will be maintained.

Research, training and education

The training of Student's Forum of WASWC will be continued. 1 Diploma and 1 PhD study will start in 2009.

The WOCAT tools shall be used in running project like "Revitalisation of Degraded Land in Serbia".

8.1.21 GTZ - Sustained

Knowledge about SWC and SLM

Integrate QT and QA with land partners.

Tool (and method) development

Exchange ideas and work with WOCAT and TF, meeting in the beginning of 2009 to harmonize the different decision support tools.

8.1.22 FAO

Future collaboration

FAO - WOCAT collaboration will continue through the Natural Resources and Environment Department (NR) and the Agriculture Department (AG). It is proposed that Sally Bunning and Wolfgang Prante will continue to provide focal point roles for NR and AG respectively in liaison with Dominique Lantieri, NRC,

regarding TerrAfrica and others involved, e.g. Yuji Niino, FAO Regional Office in Bangkok, who is involved in the Decision Support Tool.

Technical and financial contribution from FAOs Natural Resources and Environment Department will continue through two main processes:

- The LADA programme (NRLA) for effective LADA-WOCAT collaboration for national and local land degradation/improvement assessment and SLM technology and approaches documentation and mapping. This will include the LADA-HQ team and active regional officers (Nino Yuji, Lamourdia Thiombiano)
- The TerrAfrica programme for contracting WOCAT for documenting and use of SLM in Sub-Saharan Africa (complement to the book 'Where the Land is Greener').

Financial contribution from FAO's Plant Production and Protection Division (AGP) appear highly unlikely in 2009, however, the following in-kind technical contributions are foreseen:

Wolfgang Prante will continue working as member of the Task Force on Digital Products (TF IT); in particular he will:

- coordinate and drive the
 - process of debugging and finalizing the online as well as offline QM data management tool
 - work on minor enhancements of QM
 - implementation of multilingualism (i.e. adding French and Spanish)
 - addition of a map server and map visualization tool to the offline version
- Facilitate the uploading of LADA/ WOCAT LUS maps onto FAO's Geonetwork server.
- Identify funds to enable the QM programmer to continue working.
- Participate in the conceptualization and eventually in the testing of the new WOCAT website.
- Act as Focal Person of the Communication Task Force and remain available to participate in workshops/ practical training sessions on the use of the WOCAT Information Products.

8.1.23 ISRIC

Tool (and method) development

- Contribute to further tool/methods development, provide feedback on new (draft) products

Information sharing and networking

- Continued WOCAT-co-ordination, mailinglist, newsletter; PR activities and funding issues

Research, training and education

- Continue to use WOCAT QM in DESIRE and GLADA projects
- Investigate Use of WOCAT (delayed!)
- Contribute to training and backstopping where required, esp. in mapping



Impressions from a cultural evening with 'Fondue' on the lake Thun (Photos: Hanspeter Liniger).

STEERING MEETING

Rapporteur: Gudrun Schwilch

WOCAT Strategy

Presentation by Gudrun Schwilch (Strategy.ppt)

A short presentation was given about the [WOCAT strategy](#) (2008 – 2012). The strategy was finished in 2007 and gives the direction for the next 5 years. It includes:

- The vision and mission of the programme
- WOCAT's contribution to SLM
- Organisation, management and funding
- Roles and responsibilities at two levels: global programme and national/regional initiative
- Fields of activity

The strategy operates at two levels; it determines and steers at the global level and gives suggestions and ideas for implementation at the national and regional level.

The strategy introduces WOCAT's 4 dimensions of knowledge: (1) Knowledge about SWC and SLM; (2) Tool (and method) development; (3) Information sharing and networking; (4) Research, training and education. To each dimension of knowledge different related objective are given.

The second section of the strategy called the 'Annex activities' is not yet fully developed. Further input of the TF-members is needed.

Taskforce activity plans

TF Decision Support Tool

TF-members: **Gudrun Schwilch**, Jeremiah Lewis Njeru, Alexander Schöning, Rokhaya Daba Fall, Lehman Lindeque, (not present: Nestor Garcia, Lydia Bosoga, Yuji Niino, Todosijevic Mirjana)

Activity	Timing	Responsible	Funding
1) Local (technology) level			
Testing DESIRE tool in WOCAT countries: - Somalia - Senegal - South Africa Etc.	Mar 09 Nov/Dec 08 March 09	Njeru Lewis Rokhaya Daba Fall Zanele Mkize	SWALIM Inst. of Pedology LANDCARE
Identify issues for improvement (e.g. search by key questions)	June 09 (after testing)	Gudrun Schwilch	CDE/ WOCAT?
Training for WOCAT countries	West Africa: Jan 09 Others?	?	?
2) Local (approach) level			
Harmonization of DSS (DESIRE and ScalA), elaborate process for use of tools	Jan 09	Alexander Schöning/ Gudrun Schwilch/ Hanspeter Liniger	CDE/ GTZ
Further development	June 09 onwards	Alexander Schöning/ Gudrun Schwilch/ Hanspeter Liniger	CDE/ GTZ
Testing of ScalA in WOCAT countries (Somalia, Senegal, South Africa, etc)	Till May 09	National coordinators	National budgets
3) Regional (mapping) level			
Refine the analysis of QM matrix data	March 09	Lehman Lindeque	DoA/ ARC/ LADA

to inform decision making			
Explore tools for interaction with decision makers, document generic process	Sep 09	Lehman Lindeque, Gudrun Schwilch	DoA/ ARC/ LADA
Guidelines for DSS process	Oct 09	Lehman Lindeque	DoA/ ARC/ LADA
Training at WWSM	Oct 09	Lehman Lindeque	DoA/ ARC/ LADA
4) Integration of levels			
Discuss sequence of DS tool application (local (T,A) – national (M) or vice versa) in online forum	May 09 onwards (after testing)	Gudrun Schwilch	Not required

TF Questionnaires Modules

TF-members: Rima Mekdaschi Studer, Sanjeev Bhuchar, Daniel Danano, Madhav Dhakal, Irfanullah Khan, Isabelle Providoli, Sally Bunning, Batzaya Tsegmid, Niranjan Sahu (not present: Sudibya Kanti Khisa, Gbénonchi Mawussi, Nada Dragovic)

A connection to other taskforces should be made e.g. to the TF on impact monitoring to better profit from synergies and knowledge/ results.

What	Timing	How	Responsible
Feed back from WWSM group members: a) Reminder b) Feedback on Module + open questions	a) Oct-Nov 2008 b) End Dec, 2008	a) E-mail + soft copy + questions b) E-mail	a) Rima to send b) Rima+Sanjeev
Incorporation of comments+2nd draft	End Jan, 2009	E-mail	Rima +Sanjeev
Send 2nd draft to 08' TF members	End Jan, 2009	E-mail	Rima
Feed back from TF	End Feb, 2009	E-mail	To Rima +Sanjeev
Compile again Final draft and send for feedback	End of Mar, 2009	E-mail to TF-members of last 2-3 WWSMS	Rima
Feedback & ready for testing	End of Mar, 2009	E-mail For module: -drawings/example -photos For field testing	CDE Zaya Njeru
Feedback from field	End of Sep, 09	E-mail	By Zaya to Rima+Sanjeev
Finalize before WWSM			Rima+Sanjeev

TF Impact Monitoring

TF-members: Ermek Baibagyshov, Hanspeter Liniger, Mandakh Nyamtseren, Niranjan Sahu, Yaolin Wang, Munawar Khan, Isabelle Providoli, Brigitte Schuster, Meng Lingqin, Sanjeev Bhuchar, Sally Bunning (not present: Mandakh Nyamtseren, Digna Manzalia, Aida Gareeva, Jesus Javier, Karl Herweg)

Main activities	Timing
Development of Local Impact Monitoring Tool:	
– Collection of materials for methodology (including translation)	December 08
– Screen and development of methodology for monitoring (include, adapt etc.)	January 09
– Finalization of the draft version of tool	April - May 09
– Field testing of the toolkit	June – August 09
Collection of feedbacks / first data's	August 09
Make modifications (in TF Meeting)	October 09
Finalization of the IM Tool (guidelines, manual), including design, layout, printing	December 09

TF Digital Products & TF Mapping

*TF-members Digital Products: **Wolfgang Prante**, Kurt Gerber, Carin Pretorius, Gudrun Schwilch, Godert van Lynden, Jeremiah Lewis Njeru, Christine Hauert (not present: Dirk Pretorius, Dethie Ndiaye)*

*TF-members Mapping: **Dirk Pretorius (not present)**, Godert van Lynden, Carin Pretorius, Wolfgang Prante, Hanspeter Liniger, Lehman Lindeque, Abdellah Laouina, Miodrag Zlatic, Hukmatullo Ahmadov, (not present: Shoaib Jalal Udin, Freddy Nachtergaele, Dethie Ndiaye, Yuji Niino, Mandakh Nyamtseren, Nada Dragovic)*

It was discussed if it still makes sense to separate the TF on Digital Products and the Mapping TF, since many issues concerning the database development of QM have implications to both taskforces. However, the WWSM participants agreed to continue with both taskforces.

Task	Responsibility	Timing	Budget required	Source
Finalisation off-line & on-line QM data management tool	FAO - AGP (Wolfgang)	end 08	covered	FAO
Develop off-line map visualisation tool	FAO (Wolfgang)/ Kurt	mid-Feb 09	covered	FAO
Final testing on-line QA data management tool	Users (everyone)/ Carin	end 2008	p.m.	
Debugging	Carin		covered	CDE/ S. Africa
Upload QA db with existing data	Carin	mid-Jan 09	€ 1,500	CDE
Finalisation off-line QA data management tool	Wolfgang/Carin	mid-Feb 09	p.m.	
Other language versions	CDE	end Feb 09	covered?	CDE
Memory Sticks with WOCAT logo (4 Gb) ONLY QA (+QM?)!	Kurt	end Feb 09	± € 25 / stick	CDE
QT data management tool development	Carin (/CDE)	5 months after contract	€ 24,382	CDE / S. Africa
Final testing on-line QT data management tool	Users (everyone)/ Carin	6 months after contract	p.m.	
Upload QT db with existing data	Carin	7 months after contract	€ 2,500	CDE
Other language versions	CDE	8 months after contract	covered?	CDE
Upload-script	Carin/Kurt/Wolfgang	mid-Feb 09	t.b.d.	
Put new website on server for commenting	Kurt	As soon as possible	p.m.	
New Website design comments	Everyone	End Nov 09	p.m.	
Finalise Website design & development	Kurt	Mid 09?	covered	CDE
Photo library (reference for questionnaires)				
TF meeting (combined with TF mapping)	TF DP; TF mapping	June 09	€ 15,000	CDE/ S. Africa / LADA / DESIRE / ISRIC
Regional Training for Trainers	WOCAT	Before WWSM	€ 20-30.000	WOCAT + nat./reg. instit.(costsharing)
TF-Mapping				
Develop ideas in Photo library for reference (/ country/ region)	TF mapping; TF DP	June 09	t.b.d.	

TF WOCAT in research, training & education (R, T & E)

TF-members: Miodrag Zlatic, Romy Labios, Abdellah Laouina, Hanspeter Liniger, Zanele Mkize, Akhmadi Khaulenbek, Ermek Baibagyshov, Ikponke Nkanta (not present: Aida Gareeva, Abdybek Asanaliev, Joe Balaoing, Lydia Bosoga)

Activities	When?	How?	Resources
Education: 1) WOCAT Promotion in Education.	Nov - Dec 2008	Drafting and sending letters to the relevant Professors Meeting (Berne / Alep)	Local funding
2) Adapt WOCAT curricula to the different levels.	Nov 08 -July 09		WOCAT, CDE
3) Use WOCAT tools for basic education.	Nov 08 - Oct 09	Through the workshops, trainings, information days- of extension workers, technicians, land users...	Funding from local countries
Research: 1) To use WOCAT tool in different fields (thesis, internship for research in other countries, exchange of students visits.	Nov 08 - Oct 09	Meeting	WOCAT, CDE
2) Looking for funding agencies	Nov 08 – Oct 09	Through Universities of Wageningen, Bern, and Belgrade	Wageningen Univ., SDC, UNESCO Local funding
3) Promoting idea of WOCAT in projects and programmes and monitoring of its implementation	Nov 08 – Oct 09	TF members	
4) Inventory of the universities who are willing for internship	Sept 09	Student reports	University funding

TF Strategy and Communication (internal and external)/ Dissemination and Promotion

TF-members: Hanspeter Liniger, Rima Mekdaschi Studer, Christine Hauert, Arjumand Nizami, Godert van Lynden, Miodrag Zlatic, Wolfgang Prante, Sally Bunning, (not present: Shoaib Jalal Udin, Dandong, Chang Yuji Niino, G.B. Reddy)

The former taskforces on 'Strategy' and 'Communication and Promotion' were merged into one taskforce. Due to intersections with other taskforce activity plans preparation it was not possible to prepare an activity plan for this taskforce.

However since both taskforce were not very active during the last year, the work plans from the last WWSM still needs to be finished. The main activity in relation to the strategy development will be the finalization of the annex document.

Activities WOCAT Strategy
Regional group meetings on national and regional fields of activities For each field of activity the following sections were filled out by the groups: <ul style="list-style-type: none"> – Where, when and how are you contributing to WOCAT's objectives? – Responsible (i.e. global or nat./ reg. level) – Target group – Motivation / demand – Outputs (with timing and resources required) – Dissemination – Outcome
Check if 3 and 10 years vision of countries/ partners is reflected in strategy annex

'activities' and if not, try to integrate them (for visions see below)
Compilation and integration of the findings into the draft document
Send draft document to taskforce members and members of the regional groups of WWSM12/WWSM13 for feedback
Compilation of received feedback and preparation of final draft This compilation allows the WOCAT participating institutions as well as the donors of WOCAT to select, prioritise and target their involvement
Present and finalise draft at WWSM 14

Global activity plan 2009

1. Knowledge about SWC and SLM

Produce and finalize TerrAfrica guidelines for best bet SLM technologies and approaches in SSA.

Joint UNCCD/ WOCAT report for CSD 17 (May 2009, New York) on best practices and their effectiveness to reduce land degradation through sustainable agriculture.

Follow-up updating the database case studies with additional information gained through the new and revised questions in the questionnaire on SLM technologies and approaches addressing global issues and ecosystem services.

Encourage the population of the database with good quality data: set-up and ensure funding of review panel.

Further support the production of national overview books.

Joint publications: DSS Gudrun Schwilch, Mapping Lehman Lindeque, ILEISA journal, etc.

2. Tool (and method) development

Promote the WOCAT technology inventory table to be used for a quick survey of technologies that are already being used in a region. Further promote the use of the WOCAT technology inventory table to enhance the collected data for a global overview map on SLM technologies.

Digital product development: Special effort and investment!!! On-line database, map viewer and website development.

Coordinating and Supporting Taskforce activities

3. Information sharing and networking

Seek further collaboration with UNCCD: Participate in CRIC7 (Committee for the Review of the Implementation of the Convention) meeting November 2008 in Istanbul, COP9 Sept 09 and IATF (Interagency Taskforce). Contribute to the discussions and offering the WOCAT tools as means to 'improving the UNCCD procedures for communication of information, as well as the quality and format of reports.

Establish WOCAT in UN- Organisations and programmes:

- Further develop WOCAT-LADA collaboration including national and local level:
- TerrAfrica
- SWALIM (Somalia)
- CACILM
- GEF-KM Land, Indicators

PR and link to commercial companies

Participation in Conferences:

- PRC-GEF 6/7 Nov 08, China with WB, GEF
- UNCCD-CRIC Istanbul 3-14 Nov 08
- 4th Conservation Agriculture Congress Delhi 4-7 Feb 09
- Climate Change: Copenhagen March 09
- WASWC world conference Serbia 27-30 May 2009 (WOCAT in topic 7)
- Tibet workshop June 09
- 2nd World Congress on Agroforestry 23-28 Aug 09, Nairobi
- ISCO: Chile (23-27 Nov.), preceded by DESIRE meeting (19-22 Nov 09)
- WWSM 14: see below

Encourage new initiatives such as in Cuba, Myanmar, Madagascar, Ghana, Tibet, etc. to further enhance the WOCAT network and to provide active support and backstopping of new initiatives.

Promoting WOCAT in Switzerland

Follow up on contacts with other networks and interest groups, such as Sustainet (GTZ), Conservation Agriculture, CC networks, etc

4. Research, training and education

WOCAT in education and research (DESIRE, COST, NCCR, ICARDA.....): tool development, filling gaps

Training:

- LADA Local Argentina (Jan 09)
- Orissa (Feb 09)
- Mongolia (April 09)
- Senegal: LADA and regional (West Africa) (Jan 09?)
- Argentina: LADA (?)
- Decision support training in Montpellier (F) (May 09)

5. Basic enabling activities at the global level

Translation of 'where the land is greener' into Spanish and French. The translated version shall be made available in pdf-format on the WOCAT-website. Correct major bugs in 'where the land is greener' and make available as new pdf on website.

Secure new and continued funding.

Discussion & Questions

Different suggestions were made to contact new donors, such as the Danone Group (who participated day 1 of the WWSM) or other commercial companies.

Planning table 2009

In the following table the objectives and the specific activities (as listed in the project document* and based on the 4 dimensions of knowledge**) are listed and in a 3rd column the planned activities for 2009 are described (priorities in bold font).

Objectives / Expected results **	Activities*	Plan 2009
<p>1. Knowledge about SWC and SLM <i>Support (backstopping) for the production of outputs at national and regional level. Analysis and synthesis regarding emerging global issues.</i></p>	<ul style="list-style-type: none"> • Support the production of national overviews • Produce dissemination materials: use of WOCAT (posters, pamphlets, videos) • Develop a world map on the major SWC measures • Enlarge the number of documented and evaluated technologies and approaches in the global database • Assess / analyse SLM knowledge gained through WOCAT and show their contribution to global issues • Promote and support the establishment and operation of national peer review panels to ensure and enhance the quality of the information • Compile an inventory of global prototype technologies (covering the spectrum according to WOCAT SWC categorization system) • Produce prototypes of conservation maps at different scales, for different AEZ/continents. • Analyse successful technologies on their applicability for different natural and human environments • Develop WOCAT label and standards 	<ul style="list-style-type: none"> • Further support the production of national overview books • Populate and update the WOCAT database, needs special focus • Guidelines for best bet SLM technologies and approaches for SSA (Terrafrica) • Second interagency advisory task force (IATF) meeting. IATF assists in framing UNCCD reporting and enables cross-referencing, where appropriate. • Joint UNCCD/ WOCAT report for CSD 17 (April 2009, New York) on best practices and their effectiveness to reduce land degradation through sustainable agriculture. • Joint publications: DSS - Gudrun Schwilch, Mapping - Lehman Lindeque, ILEISA journal, etc.
<p>2. Tool (and method) development <i>Additional and enhanced tools for exchange of knowledge and decision support developed</i></p>	<ul style="list-style-type: none"> • Elaborate questionnaire modules on issues like watershed management, poverty alleviation, carbon sequestration and other upcoming important issues • Further develop and adapt the SWC categorization system to include newly integrated issues of the revised questionnaires • Make available prototype of overview books (guidelines, templates) • Develop analysis tools to assess the impact of technologies / approaches / and their spread with regard to global conventions and MDG's • Develop enhanced data analysis and evaluation tool -> decision support tool (validation/evaluation of SLM, planning of SLM) • Adapt database to new questionnaire developments (in new on-line software) • Advance mapping system (new software/mapping tool in cooperation with FAO/UNEP to incorporate GIS/RS as well as expert knowledge on spatial distribution of degradation and 	<ul style="list-style-type: none"> • Finalize watershed management module, and develop new modules according to need • Finalize LADA / WOCAT mapping tool • Develop further map viewer-application which will enable the user to automatically generate an overview map of the data entered. • Carry forward decision support tool • Promote the WOCAT technology inventory table to be used for a quick survey of technologies that are already being used in a region • Digital product development: special effort and investment!!! On-line database, map viewer and website development • Coordinating and supporting taskforces

Objectives / Expected results **	Activities*	Plan 2009
	<p>conservation)</p> <ul style="list-style-type: none"> • Develop new database system (new software), including feedback mechanism for quality assurance • Build an interactive data entry, viewing and updating system • Develop holistic methodology including (a) SLM identification through stakeholder workshops, (b) SWC documentation and evaluation with questionnaires and (c) comparative analysis of SWC options with the help of a decision support tool • Develop method and identify indicators for local level assessment (jointly with university of East Anglia, FAO/ UNEP/ UNU/ GEF/ UNDP) • Develop guidelines for documentation, evaluation and use of SLM knowledge (also for global and national review panels) • Set up training modules on SLM knowledge management using WOCAT tools 	
<p>3. Information sharing and networking <i>WOCAT Network enhanced and consolidated</i></p>	<ul style="list-style-type: none"> • Strengthen partner in the use of WOCAT • Add new partners and consortium members in SDC priority regions where WOCAT is not yet well established. • Sponsor participation of WOCAT partners at WWSMs to enhance exchange, contacts and cooperation between different countries • Participate in International Conferences and meetings to promote WOCAT (e.g. at events of UNCCD, IUSS and ISCO; LADA) • Integrate WOCAT in environmental and development processes at the global (UNCCD, UNCBD, UNFCCC, LADA) and at the national / regional level (government, NGO and bilateral projects). Give special attention to SDC priority countries • Continue and enhance the WOCAT e-mail list and newsletter • Establish and maintain links to other networks • Regional / international exchange visits • Improve platforms for communication to facilitate contacts and knowledge sharing between WOCAT partners • Add new partners and consortium members in regions where WOCAT is not yet well established. 	<ul style="list-style-type: none"> • Further collaboration with UNCCD: participate in CRIC7, Nov 08 and COP9 Sept 09 • Establish WOCAT in UN- organisations and programmes: • Further develop WOCAT-LADA collaboration including national and local level: <ul style="list-style-type: none"> • Terrafrica • SWALIM (Somalia) • CACILM • GEF-KM land, indicators • Participation in conferences • Encourage new initiatives (Cuba, Myanmar, Madagascar, Ghana, Tibet) further promoting WOCAT in Switzerland • Follow up on contacts with other networks and interest groups, such as Sustainet (GTZ), conservation agriculture, CC networks, etc
<p>4. Research, training and education <i>Partners trained to run WOCAT programme in their countries and regions. Use of research to support WOCAT's mission and develop tools and outputs</i></p>	<ul style="list-style-type: none"> • Conduct additional international 'Training for National Trainers / Facilitators' workshops • Provide support and expertise for additional national and regional initiation and training workshops, upon request from national / regional institutions • Facilitate / assist in links to research (e.g. DESIRE, COST, NCCR) • Publish in appropriate journals 	<ul style="list-style-type: none"> • WOCAT in education and research (DESIRE, COST, NCCR, ICARDA.....): tool development, filling gaps • Training: LADA local Argentina, Orissa, Mongolia (April 09), Senegal: LADA and regional (West Africa) (Jan 09?), Argentina: LADA (January), decision support training in Montpellier (France), May 09 • WOCAT in education: MSc and BSc studies, lectures and field courses

Objectives / Expected results **	Activities*	Plan 2009
	<ul style="list-style-type: none"> • Promote and provide supervision for MSc, PhD thesis addressing knowledge gaps • Develop training modules, manuals and teaching material for universities and extension services 	
<p>5. Basic enabling activities at the global level <i>Keep the WOCAT programme and network running at a basic level</i></p>	<ul style="list-style-type: none"> • Maintain and update global DB • Organize one international WOCAT Workshop and Steering Meeting (WWSM) per year followed by proceedings • Produce newsletter (half-yearly, with active participation of national/regional initiatives) • Enhance e-mail communication and mailing list (WOCAT-L) • Keep website up-to-date • Build up a pool of trainers and trained specialists • Coordinate programme, and maintain good relations to donors • Update brochures, flyers, etc. (promotion of WOCAT) • Update WOCAT CD-ROM (every 3-4 years) • Invest in finding new donors 	<ul style="list-style-type: none"> • Translation of 'where the land is greener' into Spanish and French • Update global database • Organize WWSM14 • Support and coordinate TF-meetings • Production of newsletter • Backstopping and email communication • Update website • Programme coordination • Find new donors • Update promotion material

* Objectives / Expected results as stated in the funding proposal and activities listed.

Funding

Secure new and continued funding: new and old donors (UNEP, GEF, DANIDA, Syngenta Foundation, SDC, FAO-LADA etc.) shall be approached. Part of new funds should be assigned to global WOCAT. For certain institutions/ donors it is easier to support specific products rather than the whole programme (e.g. FAO supporting the on-line system) and/ or to fund activities in their pilot/ focal countries. A proposal for funding shall be prepared to the Swiss 'Bundesamt für Landwirtschaft'. A revised joint CDE-WOCAT proposal will be submitted to Syngenta Foundation. Commercial companies (e.g. Danone, Unilever, ...) to be approached as well.

Visions:

- Funding by GEF, UNCCD, LADA, ADB... earmarked contribution to WOCAT core
- All SDC funded projects partners to use WOCAT tools for documentation, evaluation, dissemination and decision support.

Enhance core funding and consolidate core team at CDE.

Estimated core funds 2009

Donors	Funds promised		Targeted funds
	in CHF	in USD	in USD
SDC*	432'000	440'000	
FAO - LADA			48'000
SDC Mongolia			53'000 ?
TerrAfrica	105'000	90'000	
UNCCD			20'000 ?
GEF KM land			???
Bundesamt f. Landw.			100'000
Syngenta Foundation			??
Overview book sales			???
Estimated budget required for 2009			
	~500'000	~430'000	

* Contract 1.1.2008 - 31.12.2011: Funds/year = CHF432'000

Donor Contribution

A short presentation compiling the outputs of the donor group works from the symposium was given:

- Acknowledge national in kind contributions, maintain commitments (e.g. as in South Africa, China, etc.)
- Seek money for SLM actions not for "WOCAT"
- Demonstrate continuous progress on WOCAT use and application
- Create a core donor group: regularly update on prospects and progress as it was done with the symposium (convincing evidence is needed)
- Donor support committee
 - work on common plan and strategy (as SDC)
 - limit reporting obligations
 - wide funding sources - private sector (Kilimo, Gates foundation, etc.) and public sector, various technical sectors
- Need to mainstream WOCAT tools & 'standards' in large-scale national programmes, GEF up-scaling SLM, WB, UN, TerrAfrica, etc.
- Use next series of global events/ meetings (UNCCD, CSD, FCCC etc.) to promote use of WOCAT tools through a common voice on successful national initiatives.
- Donors could help to sensitise Ministries of Agriculture (crop, livestock, forestry, water sectors) and other concerned institutions to highlight importance of SLM for enhanced productivity and food security (not just legal treaties and inputs- fertiliser, seeds etc.)
- Use WOCAT tools to ensure SLM responses are based on sound science and tools

- Raise awareness/ increase use of WOCAT among research-development partners e.g. CGIAR, FAO, etc.

Maintaining a core group for keeping the WOCAT network together is needed. The example of DANIDA funding some years ago, which was split into global and national earmarked contributions, was very successful. There is the tendency of donors to pay just for the products they want, therefore it is important to be more active in promoting WOCATs own ideas and developments.

Discussion

- The dependency on WOCAT funds for national initiatives has decreased, however many still rely on sponsoring for participation in the WWSM. National initiatives should also approach other foreign donors than the ones that are already funding them. Bottom-up requests of national/ regional initiatives are needed, with support by the WOCAT global management in negotiation if needed/ requested.
- The suggestion was made to take from each national/ regional budget a certain % for core (overhead) of WOCAT.
 - > This idea also received support from other participants.
 - > Regional/ National initiatives should asking for overhead in the upcoming projects and not drain to the global management or the secretariat, but using them for decentralised activities.
 - > If overheads should be paid to the global management with special conditions for WOCAT newcomers.
- The core group at CDE consist of four people covering together a work time of less than 200%, which means the team is much needed and it is getting more and more difficult to react on all requests.

Presentation SDC

Markus Bürli form SDC attended the Steering Meeting and gave a short introduction about SDC involvement in WOCAT and the recent developments of SDC. A reorganisation of SDC was done in 2008 and has been finished in October 2008. SDC is now split up in different organisational parts according to geographical regions. WOCAT is now linked into the secondary structure (not primary anymore), which hopefully does not mean second importance! It is not yet known who will be responsible for WOCAT in future.

The link of WOCAT to UNCCD is appreciated by SDC, bringing a unique chance for WOCAT to get more involved in the convention. The national and regional WOCAT initiatives were also encouraged to contact the local focal points and to enhance the collaboration with UNCCD.

Furthermore Markus Bürli acknowledged that it has become a major challenge to hold WOCAT together at the global level since it is constantly growing.

Discussion

- Donor coordination is desirable, though the lead can not be taken by the main donor SDC. The idea of a special taskforce for fundraising came up. However, this should be dealt within the TF 'on Strategy and Communication / Dissemination and Promotion'. The issue of how to organize the donor coordination will be taken up by CDE and SDC.
- The idea came up to organize a common WOCAT side event at the next COP-meeting in 2010 including not only the global level, but also different partners from the national/ regional level.
- It was mentioned that within the TF 'impact monitoring' a special proposal for SDC funds was submitted in collaboration with CAMP Alattoo.
- WOCAT was involved in a Climate Change group initiated by SDC in 2008. SDC is still interested to maintain this CC group.

Organisational issues

Election of global management, assignment of secretariat

Global Management

- CDE: Hanspeter Liniger (global coordination; secretariat)
- ISRIC: Godert van Lynden
- FAO: Freddy Nachtergaele, Sally Bunning

Secretariat: CDE as the institution to continue hosting the secretariat

Discussion

It was suggested that the WOCAT core group should be more open to involve young people and more institutions.

-> A small group is needed, and often institutions from the national/ regional level are not able to offer enough time for global management duties.

The question about the FAO's contribution was raised

-> The contribution of the FAO has improved in the last 1.5 years especially also through the LADA project. It would be important to build up a core team at FAO and ISRIC involved in WOCAT, like it is maintained at CDE.

A second line order would help for the leadership development within WOCAT.

-> Is already partly done.

Involve SDC people in fund raising activities and inviting also Hans Hurni, Coen Ritsema and the new ISRIC director to a coordination meeting.

Next WWSM

The issue in which form the next WWSM should be conducted was raised again. Possible options were: (1) one week WWSM like it was conducted the years before; (2) TF-meetings instead of a WWSM; (3) WWSM but with more emphasis on taskforces. It was commonly agreed that more emphasis should be given to the taskforces to actively work during the meeting. However, the national and regional initiatives should still get their platform for presentation and the feeling of the network should not get lost, since the national/ regional activities are the major pillar of WOCAT. Additionally a TF-meeting is less attractive for donors.

Most of the participants highly appreciated the idea of having a symposium on the first day, which is a very good opportunity for the host of the WWSM to attract additional donors and to promote their organisation/ institution and WOCAT in their own country. The decision was therefore made that the WWSM should be conducted similar to the 13th WWSM in Switzerland with an open symposium for local organizations and institutions and the WWSM following. TF-meetings should also be integrated into the WWSM.

The final decision was to have a 6 day programme consisting of: 1 day symposium, 2 days well prepared TF meeting (only *active* TF!), 1 field day, 1 ½ progress reports, planning, etc., ½ day Steering Meeting.

The next WWSM shall also involve a certain amount of hands-on training with the WOCAT tools. However, it must be considered that the participants have very different backgrounds and needs regarding the use of WOCAT tools.

Options for next WWSM were Morocco, Chile, Tajikistan (Central Asia), ICARDA.

The participants voted for Morocco. The offers from Tajikistan/ Kyrgyzstan (Central Asia) and ICARDA can be reconsidered next year.

Morocco accepted and confirmed to host the 14th WWSM in 2009.

Host: University of Mohammed V Faculty of Human Sciences, Rabat, Morocco

When: 12 – 17 October 2009

Feedback from participants

The following table lists the expectations mentioned by the participants at the beginning of the workshop. Each participant filled in the table with the expectations reached on the last workshop day and gave a ranking to every issue mentioned.

	Ranking*	Number of given answers
General remarks		
To learn more about WOCAT	4.4	19
Institutionalize WOCAT and less dependency on single persons	3.5	18
Continuation of good work	4.2	18
Stronger obligations in taskforces	3.9	23
Linkages to other initiatives, UN efforts related to land degradation/conservation, integrated approach to ecosystem management.	3.9	20
Good successful workshop	4.7	17
Knowledge about SWC and SLM		
Identify resource persons for scaling-up/ -out	3.4	17
Address water related issues	3.6	13
WOCAT and adaptation to climate change	3.4	20
Populating and updating WOCAT database	3.5	22
Tool (and method) development		
Development of local impact monitoring tool	3.7	21
Learn about WOCAT tools and how to use them	4.3	18
Final versions of QT / QA	4.1	15
First version of WOCAT/LADA mapping methodology	3.5	19
Method to setup a land degradation monitoring framework	3.5	20
Way forward of on-line databases	4.0	20
Watershed module ready	3.8	20
Information sharing and networking		
Identify areas for collaboration with WOCAT	4.1	21
Synergies between partners and country initiatives	3.8	22
Sharing of experiences	4.4	20
To link WOCAT with research	3.8	21
Research, training and education		
How to use WOCAT in research	3.5	20
WOCAT lecture notes	3.4	18

* ranking: 1=very bad; 2=bad; 3=okay; 4=good; 5=very good.

Any other business (AoB)

Two conferences for 2009 were announced:

- 1) [International Conference 'Land Conservation'](#) – LANDCON 0905, Global Change – Challenges for Soil Management, May 26 – 30, Tara Mountain, Serbia
- 2) [2nd World Congress of Agroforestry](#), 23 – 28 August, Nairobi, Kenya.

ANNEX 1: FIELD TRIP REPORT

Report by Christine Hauert

The aim of the field trip was to provide the WWSM participants a better impression about Swiss agriculture and SLM and about the Swiss cheese process. The first stop was in Melchnau, a small rural village in the region Oberaargau. Within the EU-project COST634 two CDE PhD-studies and numerous MSc and BSc studies have been conducted in this area. The reason for working in this area is their relative high percentage of applied conservation agriculture and direct seeding.

In Melchnau the farm of Fritz and Esther Duppenthaler was visited. There we received a short introduction to their farm and warm tea and coffee. Duppenthalers apply direct seeding on most of their cultivated land. We also met Stefan Minder again, who already gave a presentation during the Symposium in Bern (see presentation held at the symposium). Stefan Minder is one of the 3 members of the MIGAMO cooperative, a customer service for direct seeding. Due to the influence of Stefan Minder and his colleagues no-till is much more common around Melchnau than in other areas in Switzerland. The two students Judith Gasser and Urs Grob gave us a short introduction to their MSc-studies using the WOCAT/ LADA mapping methodology. A few kilometres outside Melchnau we stopped at Rohrbach to see some agricultural fields and to compare soil properties of conventional tillage with no-till fields. The tilled field showed very severe soil erosion. With a spade sample the soil structure of the conventional and no-till field were compared. The comparison indicated higher soil organic matter content and better soil structure for the no-till field.

We continued through the Emmental. The hilly region is made of sandstones and other sediments deposited during and after the folding of the Swiss Alps. Emmental is very famous for its cheese especially for the local cheese 'Emmentaler'. To have a better impression about the Swiss cheese production, we stopped at a show dairy in the village Affoltern. After a typical Swiss Lunch with 'Rösti' and traditional music we had a guided tour showing the history of cheese making and also the current cheese production. Our guides also disclosed the miracle about the holes in the Emmentaler cheese. The holes develop while stored in cellars of approximately 20°C. A fermentation process starts due to the so-called propionacid-bacteria which connect to the lipid parts of the cheese releasing CO₂ and probion acid. The acid and CO₂ can not elude anymore therefore the gaz accumulates on certain spots leading to the holes.

We made a last stop at the farm of family Hauert in Burgdorf. Like most of the farms in Switzerland it is a mixed farm combining agriculture and livestock (milk production). We had a tour around the farm, showing e.g. the potato harvester, cow stable and the storage room for hay and straw under the roof of the typical Bernese farm house. Around 8.00 p.m. we arrived back in Gwatt.



Stefan Minder explaining the benefits of conservation agriculture.



Comparing spade samples in the field.



Emmentaler cheese making today.



*Store of the Emmentaler cheese.
(Photos: Hanspeter Liniger)*

ANNEX 2: WORK PLANS 2009

Asia

Bangladesh
China
ICIMOD (HIMCAT)
India
Pakistan
Mongolia
Kyrgyzstan
Tajikistan
Philippines
Syria

Africa

South Africa
Ethiopia
Madagascar
Senegal
Ghana
Somalia
Nigeria
Morocco
Tunisia

Europe

Serbia



Group photo at field day in front of Duppenthalers farm house. (Photo: Hanspeter Liniger)

WORK PLAN FOR Bangladesh: November 2008 – October 2009										
Expected Outputs	Activities	Inputs			Funding (US Dollar)		Responsible person(s)		Time table	
		Person x months	Institution	Materials/ equipment	Available	Required		Commitment by		
BANCAT Achievements upto October, 2009 reviewed and Work-plan for 2009-2010 prepared	Convening BANCAT Working Group(WG) Meeting, Preparation of Progress Report and Work-plan	12	1	CHTRRegional Council, SRDI, BFRI, IFESCU		0	0	S.K. Khisa; J.U.Shoaib	S.K. Khisa; J.U.Shoaib	October, 2009
Documentation of more QTs and QAs from different agroecological zones of Bangladesh	Documentation of QTs and QAs will be carried out by the university teachers and students from different agroecological zones subject to the availability of fund	12	2	CHTRC, SRDI, BFRI, IFESCU	WOCAT tools	0	500	S.K. Khisa; J.U.Shoaib	S.K. Khisa; J.U.Shoaib	November, 2008- April, 2009
Popularization of WOCAT Tools	Ten Orientation Workshops on WOCAT Tools to be arranged for the teachers and students of four universities of Bangladesh subject to the availability of fund	2	6	CHTRDP, SRDI, BFRI, IFESCU	WOCAT and BANCAT power point presentations will be used	0	5000	S.K. Khisa; J.U.Shoaib	S.K. Khisa; J.U.Shoaib	November, 2008 to October,09
Awareness raised about WOCAT and BANCAT	Participation in different Trainings and seminars	2	4	CHTDB, SRDI BFRI	WOCAT and BANCAT brochures will be used	0	0	S.K. Khisa; J.U.Shoaib , Khairul Alam	S.K. Khisa; J.U.Shoaib	December, 2007 to November,2008
BANCAT website regularly updated	Updating of BANCAT website	2	12	CHTRC, SRDI	CHTRC, SRDI	100	0	J.U.Shoaib and S.K.Khisa	S.K. Khisa; J.U.Shoaib	November,2008 to October, 2009

Prepared by: S.K.Khisa

Total: US \$ 100 and US \$ 5000

WORK PLAN FOR China: 2008-2009							
Expected Outputs	Activities	Inputs		Funding (US Dollar)		Responsible person(s)	Time table
		Person x months	Institution	Sources	Amount (US\$)		
1. Knowledge about SWC and SLM	Documentation of 10 technologies in the northeast, northwest, and Tibet of China	3*0.7	Songliao Water Resources Commission of Ministry of Water Resources, GFE Gansu Project Management Office, Tibet Water and Soil Conservation Bureau		950	Meng Lingqin, Wang Yaolin	June to August
	Publishing a Collection of Best Practices in Land Degradation prevention in Arid Area of China	1*6	GEF Central Project Office, China's Focus Point of UNCCD	GEF Project, China's Focus Point, UNCCD		Meng Yongqin, Wang Yaolin	Jan. to Sep.
2. Tool (and method) development	TF impact monitoring	2*2	Songliao Water Resources Commission of Ministry of Water Resources, GFE Gansu Project Management Office,	2,500		Meng Lingqin, Wang Yaolin	Jan. to Sep.
	Exchange information with ICIMOD	1*0.3	Songliao Water Resources Commission of Ministry of Water Resources, GFE Gansu Project Management Office			Meng Lingqin, Wang Yaolin	Nov, 2008 to Sep.
	Release information about Wocat on GEF Project Website to share with 6 project provinces.		GFE Gansu Project Management Office				
	Publish a project album containing information about Wocat and spread it to ADB, WB, WWF, and UNDP, FAO, UNCCD etc..					Meng Yongqin, Wang Yaolin	Nov. 2008 to June 2009

Prepared by: Wang Yaolin and Lingqin Meng

WORK PLAN ICIMOD FOR: November 2008 - October 2009										
Expected Outputs	Activities	Inputs			Funding (US Dollar)		Responsible person(s)		Time table	
		Person x months	Institution	Materials/ equipment	Available	Required		Commitment by		
1) Knowledge about SLM										
BHUCAT QT+QAs	Follow-up and support of newly created BHUCAT initiative	1	0.5	ICIMOD		1000		I. Providoli, S. Bhuchar	I. Providoli	Depending on support request
SSMP QT+QA database	Put SSMP QT+QA into database	1	1	ICIMOD/SSMP				M. Dhakal	M. Dhakal	
NEPCAT factsheets in Nepali language	Translate 4 NEPCAT factsheets into Nepali	1	1	SSMP				R. Allen	R. Allen	Feb 09
BANCAT factsheets	ADB project to document BANCAT fact sheets	2	3.5	ICIMOD, BANCAT		35000		I. Providoli, S. Bhuchar, Kisha	I. Providoli, S. Bhuchar	Spring 2009
2) Tools (and methods)										
Task force products	Preparation of watershed module and impact monitoring tool	3	2	ICIMOD				I. Providoli, S. Bhuchar	I. Providoli, S. Bhuchar, M. Dhakal	Oct 09 and Nov 09
3) Information sharing and networking										
HIMCAT extranet maintained	Continue HIMCAT extranet	1	1	ICIMOD		1000		I. Providoli	I. Providoli	Whole year
2 HIMCAT newsletters	2 HIMCAT newsletters prepared	1	1	ICIMOD		1000		I. Providoli, S. Bhuchar	I. Providoli	Spring and autumn 09
Regional workshop including WOCAT session in Tibet	Include WOCAT tools in Tibet project, e.g. in the regional workshop in June 09.	2	0.5	ICIMOD, Integration		1000		I. Providoli, S. Bhuchar, J. Merz	J. Merz	June 09 (was postponed in 2008)
HIMCAT country networks strengthened (BHUCAT, AFGCAT, MYACAT, etc.)	Provide support to up-coming HIMCAT initiatives	3	1	ICIMOD				I. Providoli, S. Bhuchar, M. Dhakal	National teams	Oct 09
4) Research, Training and Education										
WOCAT sessions in LCSWC trainings	Integrate WOCAT tools into ICIMOD's LCSWC trainings	2	0.25	ICIMOD		500		I. Providoli, S. Bhuchar, M. Dhakal	I. Providoli, S. Bhuchar	Spring 09
WOCAT trainings in HIMCAT region	Provide WOCAT training in Myanmar, Afghanistan and Nepal.	2	2.5	ICIMOD		30000		I. Providoli, S. Bhuchar	I. Providoli, S. Bhuchar	Spread over the year

Prepared by: S. Bhuchar and I. Providoli

Total: US \$ 69'500

WORK PLAN FOR OWDM, ORISSA, INDIA: January 2009 – December 2009										
Expected Outputs	Activities	Inputs			Funding (US Dollar)		Responsible person(s)		Time table	
		Person x months	Institution	Materials/ equipment	Available	Required		Commitment by		
Continued promotion & use of WOCAT tools	Advocate & institutionalize use of WOCAT tools across Orissa by strategic actions at the Government level.	1	1	OWDM		1200	--	Mr. G B Reddy Director, OWDM	Govt of Orissa, OWDM	Jan'09- Dec'09
Institutionalize use of WOCAT tools in WORLP districts.	Coordinate and reconstitute WOCAT working group to promote use of WOCAT in the districts	1	0.25	OWDM		200	---	Nodal Officer (PSU). Mr. Niranjana Sahu, M&E Spl. PSU	OWDM	Jan 09
Continue the documentation.	Documentation of various technologies & approaches using WOCAT tools in DFID assisted WORLP.	1	2	PSU (WORLP), OWDM	--	1330	--	Nodal Officer (PSU). Mr. Niranjana Sahu, M&E Spl. PSU	OWDM	June'09- Dec'09
Capacity Building and Exposure.	Orissa Wocateers and project managers.	6	0.75	OWDM		22,500		OWDM/ WOCAT Exposure visit to be organized in coordination with WOCAT secretariat	OWDM/ WOCAT	Sept-Oct' 09
WOCAT institutional coordination	WOCAT Core Group meeting to prepare road map on continued documentation	15	0.1	Project Directors , PSU, OWDM.	--	1000	--	M&E Specialist, PSU, CBT, PD, Watersheds	OWDM	June'09
Orientation & Training	Multi stakeholder Training – cum-sensitization workshop for senior managers of various line dept to expose WOCAT tools	30	0.1	OWDM	LCD, Laptops.	6500		OWDM/ WOCAT	OWDM	Feb- March'09
Documentation of two QTs, one QAs.	Field work	10	1	Project Directors , OWDM	Maps Records	5,800		WOCAT Core Group members	OWDM	Sept'09- Dec'09
	Finalization Workshop	25	0.1	OWDM, PD(Watershed)	LCD Laptop	3750		OWDM M&E Spl.,.PSU	OWDM	Dec'09

Prepared by: Niranjana Sahu and G. B. Reddy

Total: US \$ 42'280

WORK PLAN FOR Pakistan: 2009										
Expected Outputs	Activities	Inputs			Funding (US Dollar)		Responsible person(s)		Time table	
		Person x months	Institution	Materials/ equipment	Available	Required		Commitment by		
Concrete initiatives are identified in the field	Orientation of IC Pakistan team about WOCAT	2 person days		IC-Pakistan		Yes	No	Arjumand Nizami Munawar Khan Sahibzada Irfanullah	IC	January 2009
IC experiences gain visibility and are used by other WOCAT partners	Orientation/ capacity building on the use of Q-A and Q-T of relevant field professional (IC and its partners) Filling up of questionnaires	?		IC-Pakistan and its partners	Resource person from WOCAT	Yes	WOCAT person funded (ICIMOD)	Munawar Khan	IC	May 2009
Hands on skills on filling up of questionnaires developed	Documenting x technologies and approaches	1 person month		IC-Pakistan			IC-Pakistan - ICIMOD	Munawar Khan	IC	September 2009
The tools are improved for larger use	Testing of Up-scaling tool (scalA) in dryland management techniques (e.g. small scale activities in dryland forestation, rainwater harvesting)	?		IC-Pakistan and its partners		Yes		Munawar Khan Irfanullah Sahibzada	IC	June 2009
Modules improved for larger use Strategic vision clarified and objectives and results widely communicated / disseminated	Contribute in task force(s) as members: 1) Impact Monitoring module development 2) Watershed module development 3) Strategy and communication	Based on work plan of the task forces		IC-Pakistan		?		Irfanullah Sahibzada Munawar Khan Arjumand Nizami	WOCAT	Open

Prepared by: Arjumand Nizami / Munawar Khan

WORK PLAN FOR Mongolia: January - December 2009										
Expected Outputs	Activities	Inputs			Funding (US Dollar)		Responsible person(s)		Time table	
		Person x months	Institution	Materials/equipment	Available	Required		Commitment by		
Methodology for knowledge management introduced and capacity building for knowledge management (KM) provided	<ul style="list-style-type: none"> - Provide international backstopping - Training related to emerging global issues to DSC staff and experts - Testing of Watershed Management Module 	1	0.3	WOCAT, CDE SDC UNDP	Training materials	30,000		Batzaya, Munkhnasan	DSC, GE, Mandakh	May, 09
		1	1							
		1	5							
Collection and compilation of data regarding appropriate technology and approach	<ul style="list-style-type: none"> - Fill out and finalize inventory list for 2009-2010 - Documentation in the field - Quality assurance of the documentation - Populate database 	1	12	DSC, GeoEcology Institute		30,000		Batzaya, Munkhnasan	DSC, GE, Mandakh	Jan-Dec, 09
Active dissemination and sharing of knowledge	<ul style="list-style-type: none"> - Knowledge sharing events (e.g exchange visits) - Publications - Website 	3	2	DSC, GeoEcology Institute SDC		30,000		Batzaya, Munkhnasan	DSC, GE, Mandakh	Jan-Dec, 09
Research, training and education WOCAT network enhanced and consolidated	<ul style="list-style-type: none"> - Number of Lectures and workshops to students on knowledge about SWC and SLM - Support and mentor selected students during their practical research work - Support research study MS or PhD abroad related to desertification in Mongolia 	1	1	DSC, GeoEcology Institute SDC		50,000		Batzaya, Khaulenbek	DSC, GE, Mandakh	Jan-Dec, 09
		2	3							
		1	2							

Prepared by: Batzaya Tsegmid

WORKPLAN for CAMP Alatoo, Kyrgyzstan: Jan. 2009 – Dec. 2009									
Expected outputs	Activities	Inputs			Funding (US Dollar)		Responsible person(s)		Timetable
		Perso x months		Institution	Materials / equipment	Available	Required		
Using of WOCAT tools in frame of "Sustainable Pasture Management" project	- Training of trainers	2	1	CAMP Alatoo		4)	--	Janyl Kozhomuratova, Project Manager	Jan'09-Dec'09
	- Awareness building of resource users on SLM	4	4	CAMP Alatoo		1)	--	Azamat Isakov, Coordinator	Feb'09
	- Establishment of resource users institutions	4	6	CAMP Alatoo		2)	--	Azamat Isakov, Coordinator	Mar'09-May'09
	- Institutional strengthening of local committees	3	12	CAMP Alatoo		2)	--	Azamat Isakov, Coordinator	May'09-Dec'09
	- Development of resource management strategy (approach)	4	12	CAMP Alatoo	Strategy paper, Maps	2)	Backstopping by CDE	Azamat Isakov, Coordinator	Mar'09-Dec'09
	- Coordination of technology implementation	2	8	CAMP Alatoo	WOCAT book, brochures		--	Baitemir Naizabekov, field manager	Apr'09-Sep'09
	- Documentation of new CAT	2	2	CAMP Alatoo	Qt, Qa, IM tool	2)	Backstopping by WOCAT	Azamat Isakov, Coordinator	Apr'09-Sep'09
	- Organization a round table at national level	5	1	CAMP Alatoo			--	all staff members	Aug'09
Development and finalization of IM tool	- Coordination of TF group	1	12	CAMP Alatoo, NSU	CDE IM tool and others		Backstopping by WOCAT and about 18'000,-Euro for TF Meeting	Azamat Isakov, Coordinator. Ermek Baibagyshov, NSU	Nov'09-Dec'09
BSc, MSc students	Supervision of BSc, MSc students	2	8	KAU, NSU			Backstopping by WOCAT and Wageningen	Abdybek Asanaliev, Ermek Baibagyshov	Oct'08-Jun'09

Prepared by: Ermek Baibagyshov

WORK PLAN FOR Tajikistan: 2009										
Expected Outputs	Activities	Inputs				Funding (US Dollar)		Responsible person(s)		Time table
		Person	x months	Institution	Materials/ equipment	Available	Required		Commitment by	
Using of WOCAT tools in framework of SLM CACILM multicountry and national projects.	Training of WOCAT staff	2	1	TAAS TSSI		4)	--	Gulniso, Nekushoeva		Jan 09 - Dec 09
	Awareness building of resource users on SLM	4	4	TAAS TSSI		1)	--		Rima	Feb 09
	Establishment of resource users institutions	4	6	TAAS TSSI		2)	--	Gulniso, Nekushoeva	Ergashev, Murod	March 09 - May 09
	Institutional strengthening of local committees	3	12	TAAS TSSI		2)	--		Akhmadov, Khukumatullo	May 09 - Dec 09
	Development of resource management strategy (approach)	4	12	TAAS TSSI	Strategy paper, Maps	2)	Backstopping by CDE		Rima	March 09 - Dec 09
	Coordination of technology implementation	2	8	TAAS TSSI	WOCAT book, brochures		--	Gulniso, Nekushoeva		April 09 - Sep 09
	Documentation of new CAT	2	2	TAAS TSSI TAU	Qt, Qa, IM tool	2)	Backstopping by WOCAT JPS, computer		Gulniso, Nekushoeva	April 09 - Sep 09
	Organization a round table at national level	5	1	TAAS TSSI			--		Akhmadov, Khukumatullo	Nov 09
	Presentation of WOCAT activities and on Agro University, finding students								Akhmadov, Khukumatullo, Nematjanova, Kimijo, Gulniso, Nekushoeva	Febr 09
Development and finalization of IM tool	Coordination of TF group	1	12	TAAS TSSI	CDE IM tool and others		Backstopping by WOCAT and about 18'000,- Euro for TF Meeting			Nov 09 - Dec 09
	Training on adding the new technologies to the WOCAT Database and creation local WOCAT Database						Computer		Bettina Wolfgramm	Oct 09 - Dec 09
	Printing WOCAT book with local technologies on Tajik								Akhmadov, Khukumatullo, Gulniso, Nekushoeva,	
BSc, MSc students	Supervision of BSc, MSc students	2	8	TAAS TSSI TAU			Backstopping by WOCAT and Wageningen		Gulniso Nekushoeva, Rima Kumalova	Oct 08 - June 09

Popularization of SLM through WOCAT technologies	Creation WOCAT centre						Office equipment and so on			
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Prepared by: Ahmadov Hukmatullo

WORK PLAN for the Philippines: November 2008 – October 2009										
Expected Outputs	Activities	Inputs			Funding (US Dollar)		Responsible person(s)		Time table	
		Person x months	Institution	Materials/ equipment	Available	Required		Commitment by		
WOCAT Promotion	Inventory of institutions/ organization concerned with SLM	12	12	BSWM, BAR, PCARRD, FMB-DENR	Computer	100	500	PHILCAT members	A. Gesite R. Labios	Nov '08 to Oct '09
	Distribution of WOCAT PR materials	12	12	PHILCAT	Computer, presentation materials	100	500	PHILCAT members	A. Gesite R. Labios	Nov '08 to Oct '09
	Presentation of WOCAT materials in scientific/ technical conferences	4	2	PHILCAT	Computer, presentation materials	100	500	PHILCAT members	A. Gesite R. Labios	Jan '09 to Oct '09
Educational Materials	WOCAT use as instruction materials (Soil Science, Environmental Science, Forest Resource Management)	4	10	UPLB,BSU	Computer, WOCAT materials	100	500	UPLB,BSU	R. Labios/ J. Balaoing	Nov '08 to Oct '09
2QA, 1QT	Update and documentation of SLM approaches and technologies	2	12	UPLB, BSWM, BSU, PCARRD, ICRAF-Phils, FMB-DENR	Computer	200	1000	PHILCAT members	J. Balaoing J. Javier A. Gesite J. Balaoing D. Armada J. Mercado	Nov '08 to Oct '09
National WOCAT Training	Training on SWC and SLM for extension workers and land users	6	3	PHILCAT	Computer/ WOCAT literatures	250	10000	PHILCAT	A. Gesite R. Labios	Apr-Dec '09

Prepared by: Romeo V. Labios and Arnulfo Gesite

Total: US \$ 1'650 US\$ 14'000

WORKPLAN for ICARDA, Syria: 2008-2009										
Expected outputs	Activities	Input				Funding		Responsible person(s)		Timetable
		Person x months		Institution	Materials / equipment	Available	Required		Commitment by	
Technology entry to WOCAT	8 SLM technologies and approaches are entered	1	1	ICARDA			JPO or Student		Feras Ziadat	Subject to availability of student
Scaling out of SLM technologies	Farmers meetings and field days	3	1	ICARDA	Transportation and hosting	ICARDA*			Feras Ziadat	November-June
Implementation of SLM in farmer's fields	Design and implementation	3	3	ICARDA	Researchers' time	UNDP-SGP			Feras Ziadat	November-February
Research on the impact of SLM technologies	Field measurements of soil erosion-watershed	4	3	ICARDA	Geotextiles	ICARDA*	JPO or Student		Feras Ziadat	November-October
Local mapping of SLM in project area (Maghara)	Use GPS to map SLM	1	0.5	ICARDA	GPS, maps	ICARDA*	JPO or Student		Feras Ziadat	July

Prepared by: Feras Ziadat

Total: US \$ US \$

* This requires the confirmation of funding for proposed project.

WORK PLAN FOR South Africa: 2009										
Expected Outputs	Activities	Inputs				Funding (US Dollar)		Responsible person(s)		Time table
		Person	x months	Institution	Materials/ equipment	Available	Required		Commitment by	
Priority list for expanding the QA and QT databases	Prioritise areas and cases to investigate	1	0.5	ARC		3500				June 2009
Trained staff, & system for completion	Establish a more sustainable system	3	1	ARC/DoA		5000				June 2009
Completed questionnaires	Collect & capture data	3	1	ARC		5200				December 2009
Update old QAs & QTs	Add value to existing and acquired data	1	0.5	ARC		3500				September 2009
QA on-line	Complete QA	1	0.5	CEIT				C Pretorius		January 2009
QT on-line	Develop QT	1	5	CEIT			27000	C Pretorius		October 2009
QM Matrix	Complete QM Matrixes for the rest of South Africa as part of the LADA/WOCAT National Assessment of Land Degradation and Conservation	2	6	DoA/ARC		50000		L Lindeque		October 2009
QM DSS	Develop a Decision Support System for national level decision making based on the analysis of the QM matrix data and QM products	1	2	DoA/ARC/C DE		10000	5000	L Lindeque		November 2009

Prepared by: Lehman Lindeque, Talita Germishuys and Carin Pretorius

Total: US \$ 77'200

US \$ 32'000

WORK PLAN FOR Ethiopia: 2009									
Expected Outputs	Activities	Inputs			Funding (US Dollar)		Responsible person(s)		Time table
		Person x months	Institution	Materials/equipment	Available	Required	Commitment by		
1	Land degradation and land management base line information for monitoring SLM	SLM staff students from Bern & Wageningen	MOARD and regional Bureaus of Agriculture				MOARD + partners	Oct - Jan- 08?	
2	Completion of strategies document for scaling-up SLM	Daniel Danano & SLM project staff	MOARD and regional Bureaus of Agriculture				ESAPP	Nov 08 – June 09	
3	Updating of the EthioCat database with new entries	EthioCat network	MOARD and regional Bureaus of Agriculture				MOARD + partners	Nov 08 – June 09	
4	Sustainet Scala – tool testing	SLM & SLM GTZ Ethiopia	MOARD and regional Bureaus of Agriculture				MOARD + GTZ Ethiopia	Jan – March 09	
5	Preliminary work for possible 'homestead development' module	SLM project	MOARD and regional Bureaus of Agriculture				MOARD	June – Sept 09	

Prepared by: Daniel Danano

WORK PLAN FOR DERAD Madagascar: 2009									
Expected Outputs	Activities	Inputs			Funding (US Dollar)		Responsible person(s)		Time table
		Person x months	Institution	Materials/equipment	Available	Required	Commitment by		
Report of grazing land management	- List of literature, collection of data (part of the questionnaires, study floristic and cartographic) - Midterm report - Pre-treatment of raw data	5	2.5	DERAD		12 000 SFR (~11'100 USD)			1 October 08 - 15 December 08
	- Collection of missing data - Treatment of collected data (floristic and mapping data) - Preparation of final report	5	3.5	DERAD		18 000 SFR (~16'600 USD)			16 December 08 - 31 March 09
Mapping questionnaire and questionnaire on SLM approaches	- Preparation of a first draft version of QM dealing with degradation in the community Soalara - Preparation of QA and activities to convey grazing land management of 2 areas of the Soalara community	5	1	DERAD					1 February 09 - 31 March 09

Prepared by: Randriamalala R. Josoa (DERAD Association)

WORK PLAN FOR Senegal: 2009									
Expected Outputs	Activities	Inputs			Funding (US Dollar)		Responsible person(s)		Time table
		Person x months	Institution	Materials/ equipment	Available	Required		Commitment by	
WOCAT team at the sub-regional level	-Contact former WOCATeers in West-Africa -New focal points (15 'pays' of the sub-region) -Formation of regional delegations	2	WWSM INP/Senegal 'Pays' sub-region	National Perdiem	Flight tickets and regional perdiem and Swiss or South African experts				January
		6							April
		15							
WOCAT team at the national level	-Reunion of SLM in Senegal		INP, DEFCCS, CEPS, DEEC, DGBRLA, DAT, UAEL, DGPRE, DMG, DPCA, CSE, DCL, DA, CONGAD, CNCR, DE, DGP, ESST, CRDT, DCEF, Experts WOCAT		Transport and perdiem for WOCAT expert (South Africa/ Swiss)				January
	-Visiting the study sites								February
	-Choose well-known watersheds								February
	-Establish a working group for defined and adopted approaches through the WWSM								March
	-Implementation								May - June
Observation system and continuation of potential «TERRE ET EAU» : Volet SOL	-Equipment and operationalisation -Coordination and functions	06	12	INP	-Complete climatic station -Material for soil laboratory -Bureau equipment -Field equipments -Car				January - December

Prepared by: Rokhaya Daba Fall

WORK PLAN FOR Ghana: 2009									
Expected Outputs	Activities	Inputs			Funding (US Dollar)		Responsible person(s)		Time table
		Person x months	Institution	Materials/ equipment	Available	Required		Commitment by	
Execution of 2009 work plan	Meeting with GHANCAT Task Force	8	VECO	GHANCAT Plans and schedule forms	50		Souroudjaye Adjimon, Kossi AgbemebiaPhilip Ahmed	Souroudjaye Adjimon, Kossi Agbemebia, Philip Ahmed	December 2008
Identification and documentation of additional SLM Technologies and Approaches in Ghana	Research and documentation of more SLM Technologies and Approaches in Ghana	25	VECO, KFA, GIA, etc	WOCAT guidelines, questionnaires, etc.		1500	Souroudjaye Adjimon, Kossi AgbemebiaPhilip Ahmed	Souroudjaye Adjimon, Kossi Agbemebia, Philip Ahmed	January - March 2009
Additional contribution to the WOCAT global database	Case Study upload to WOCAT Access databases	4	VECO		100	300	Souroudjaye Adjimon, Kossi AgbemebiaPhilip Ahmed	Souroudjaye Adjimon, Kossi Agbemebia, Philip Ahmed	May 2009
Examining, contribution, and taking of actions to prevent land degradation by individual, government ministries, institutions, etc.	Printing and distribution of documented SLM Technologies and Approaches to Land users, decision makes, stake holders, Agricultural Institutons, etc	5	VECO, KFA, GIA, etc			650	Souroudjaye Adjimon, Kossi AgbemebiaPhilip Ahmed		June 2009
Starting WOCAT Regional initiative	Meeting with other WOCAT initiators in West Africa Region	5	VECO	Logistics	200	700	Souroudjaye Adjimon, Kossi AgbemebiaPhilip Ahmed	Souroudjaye Adjimon, Kossi Agbemebia, Philip Ahmed	January 2009

Prepared by: Souroudjaye Adjimon

Total: US \$ 350

US \$ 3'150

WORK PLAN FOR SWALIM, Somalia: 2009										
Expected Outputs	Activities	Inputs				Funding (US Dollar)		Responsible person(s)		Time table
		Person x	months	Institution	Materials/ equipment	Available	Required		Commitment by	
Land degradation map for Somalia (SLM Knowledge-base)	Planning workshop, data collection, analysis	3	4	FAO SWALIM, Somaliland NRM Taskforce	QM, Logistics	Yes (12,000)	None	Ronald Vargas	Lewis Njeru	Jan – Mar 2009
LADA Local land degradation assessment (Puntland) (Knowledgebase/ Research)	Planning workshop, data collection, analysis	2	2	FAO SWALIM, MoA Puntland	LADA Local, Logistics	Yes (9,000)	None	Ronald Vargas	Lewis Njeru	Apr – Jun 2009
Land Degradation Monitoring framework for Somalia- National (Tools/ Methods)	Development of framework, testing and validating with stakeholders, dissemination workshop	4	3	FAO SWALIM, Somaliland NRM Taskforce, Other stakeholders	WOCAT tools, LADA-WOCAT tools,	Yes (16,000)	None	Ronald Vargas	Lewis Njeru	Jan – Jun 2009
Develop plan for main streaming WOCAT in SWALIM IV – 2010 – 2012 (Preparatory work)	Develop plan, present to project management, incorporate in SWALIM IV proposal	1	1	FAO SWALIM	LADA-WOCAT documents	Yes (2000)	None	Lewis Njeru	Zoltan Balint	Jan – Mar 2009

Prepared by: Lewis Njeru

Total: US \$ 39'000

WORK PLAN FOR Nigeria: 2009										
Expected Outputs	Activities	Inputs				Funding (US Dollar)		Responsible person(s)		Time table
		Person months	x	Institution	Materials/equipment	Available	Required		Commitment by	
Create WOCAT Awareness, Have outputs to show to donors	Production and distribution of overview books to Research centre, Agricultural centres, NGOs, Universities etc	2	2 months	TRCC	Funds,time		2000	Ikponke Nkanta Ufon Alex	Ikponke Nkanta Ufon Alex	Nov – Dec 08
Acquire funds for WOCAT activities in Nigeria	Proposal submission to donors along side with overview books	2	1 month	TRCC	Funds,time, Overview book and other WOCAT materials		500	Ikponke Nkanta Ufon Alex	Ikponke Nkanta Ufon Alex	Jan 09
Bring in pool of SWC specialists to WOCAT	National Training for SWC on WOCAT tools.	2	1 month	TRCC	Funds, SWC /WOCAT Resource persons		3000	Ikponke Nkanta Ufon Alex	Ikponke Nkanta Ufon Alex	Feb 09
Ensure good output	Quality control of Documented QTs	3	1 month	TRCC	SWC specialists,		500	Ikponke Nkanta Ufon Alex	Ikponke Nkanta Ufon Alex	March 09
Encourage adoption of WOCAT technologies	Farmers training on WOCAT Technologies	2	1 month	TRCC	Funds, SWC /WOCAT Resource persons	2500 expected		Ikponke Nkanta Ufon Alex	Ikponke Nkanta Ufon Alex	April 09
More data added into data base	Documentation of more QTs and ATs	2	3 months	TRCC	SWC specialists, Volunteers, WOCAT materials		500	Ikponke Nkanta Ufon Alex	Ikponke Nkanta Ufon Alex	May –July 09
Present report and share experience	Preparation to attend WOCAT Next Annual meeting	1	2 months	TRCC	Time, papers		200	Ikponke Nkanta	Ikponke Nkanta	August – Sept 09

Prepared by: Ikponke Nkanta

Total: US \$ 2500

US \$ 6700

WORK PLAN FOR Morocco: 2009										
Expected Outputs	Activities	Inputs				Funding (US Dollar)		Responsible person(s)		Time table
		Person x	months	Institution	Materials/ equipment	Available	Required		Commitment by	
Revision of QT and QA files for the Sehoul region	Updating 3 QT and 3 QA already prepared in 2008 by researchers and students in the framework of DESIRE	1	1	UNESCO-GN Chair	-	Desire		Laouina		Jan 09
Selection of options	Organisation of a workshop with stakeholders (farmers, technicians)			UNESCO-GN Chair	-	Desire		Laouina		16-17 Dec 08
Implementation of experimental techniques for SWC in the Sehoul region	Agricultural work made by the farmers, with the support of technicians and researchers	2	3	Farmers	Agricultural equipment			2 farmers		
		2	1	Local CT (local agricultural centre)						
		2	1	UNESCO-GN Chair						
Monitoring	Field work	2	6	UNESCO-GN Chair	Field material for measurement	Desire		2 PHD students	UNESCO Chair	Whole year 09
Training	Master students	1	1/2	UNESCO-GN Chair		Master programm	500 euros	Chaker	UNESCO Chair	Sept 09
Networking	Sharing with agricultural dept	1	1	UNESCO-GN Chair			?	Laouina	UNESCO Chair	Sept 09
Curricula content	Sharing with forest school	1	1	UNESCO-GN Chair			?	Laouina	UNESCO Chair	Dec 09

Prepared by: Laouina Abdellah

WORK PLAN FOR Tunisia: 2008-2011									
Expected outputs	Activities	Input			Funding (US\$)		Responsible persons/ Commitment by	Timetable	
		Person months/Institution			Materials/ Equipments	Available*			Required
		IRA¹	CRDA²	AJZ³					
WOCAT data base established and implemented	Identification and documentation of SWC by using WOCAT questionnaires	2	1	1	Consumables	7000	5000	IRA	2008-2009
	Database building	2	0	0	Computer	5000	2000	IRA	2008-2009
WOCAT approach is implemented in the studied site of Jeffara, south east of Tunisia	Assessment of local and potential solutions by WOCAT methodology	2	0	0	Consumables	1000	2000	IRA	
	Update WOCAT, database	2	0	0		1000	2000	IRA	2009-2010
	Implementation and monitoring of techniques selected from the WOCAT database	2	2	1					2009-2011
Local partners backstopped	Introduction and spread the knowledge of WOCAT, database establishment and update	1	1	1	Consumables	3000	2000	IRA	2008-2011
	Training of SWC specialists	3	1	1	Consumables	7000	5000		2009-2011
	National meeting on utilization of WOCAT approaches and databases	4	1	1	Consumables	10000	5000	IRA	2010-2011
	Applying research according to WOCAT programme	2	1	1	Consumables	3000	2000	IRA	2010-2011

* DESIRE project provided around 10.000 US\$

Prepared by: Mongi Sghaier and Mohamed Ouessar

Total: US \$62'000

¹IRA: Institut des Régions Arides, Médenine, Tunisia

²CRDA: Commissariat Régional au Développement Agricole, Médenine, Tunisia

³AJZ: Association des Jeunes de Zammour, Médenine, Tunisia

WORK PLAN FOR Serbia: 2009									
Expected Outputs	Activities	Inputs			Funding (US Dollar)		Responsible person(s)		Time table
		Person x months	Institution	Materials/ equipment	Available	Required		Commitment by	
Knowledge about SWC and SLM (support of the production of outputs)	- Further action on QT and QA: continuing work in Serbia	5	2	Dept. for Ecological Engin. (Fac of Forestry)	3000	5000	Modrag Zlatic, Mirjana Todosijevec Nada Dragovic	Dept. for Ecological Engin. (Fac of Forestry)	Jun – July '09
	- Further action on QM (2 -4 districts at least)	4	6		9000	15000			Jan. – Jun '09
Information sharing and networking	- Contacts with national donors: 1. Direct. of Waters; 2. Dir. of Agric. of the Ministry of Agric., Forestry and Water M	1	1	Dept. for Ecological Engin. (Fac of Forestry)	1000	500	M. Zlatic, N. Dragovic, S.Kostadinov M. Todosijevec J. Tomicevic	Dept. for Ecological Engin. (Fac of Forestry)	March '09
	- WOCAT promotion at WASWC Conf. in Serbia in May '09	5	1			1500			May '09
	- Networking with Water Management Enterprises (logistic in getting informations and collecting data)	3	2			1500			Jun – July '09
	- Preliminary Overview Book	3	4			2500			4000
Tool (and method) development	- Training of the stuff of the Faculty of Forestry	6	1	- Dept. for Ecological Engin. (Fac of Forestry) -Stud. Forum		1000	M. Zlatic, N. Dragovic, M. Todosijevec J. Tomicevic	Dept. for Ecological Engin. (Fac of Forestry)	Jun '09
Research, training and education	- Training of Student's Forum of WASWC	5	3	Dept. for Ecological Engin. (Fac of Forestry)	1000	1000	M. Zlatic, N. Dragovic, M. Todosijevec	Dept. for Ecological Engin. (Fac of Forestry)	April 09 - July '09
	- Using WOCAT tools in running project "Revitalisation of Degraded Land in Serbia"	5	1		500	500			July '09
	- Lecturing students at IV year of studying	1	1		0	0	M. Zlatic	April '09	
	- Leading 1 Diploma work	2	1		0	0	M. Zlatic	Jan. – Feb '09	
- Leading 1 Ph. D.	4	1	0	0	M. Zlatic	Jan – April '09			

Prepared by: Miodrag Zlatic

Total: US \$ 17'000

US \$ 30'000

ANNEX 3: LIST OF PARTICIPANTS 2009

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* participants who attended one or two days of the 13th WWSM.



Front row: Akhmadi Khaulenbek, Jeremiah, Njeru Munawar Khan, Ikponke Nkanta, Sanjeev Bhuchar

Second row: Magdoline Fedail, Diallo Ousmane, Batzaya Tsegrim, Romeo Labios, Daniel Danano, Laouina Abdellah, Niranjan Sahu

Middle and back row: Madhav Dhakal, Rima Mekdaschi Studer, Godert van Lynden, Hukmatullo Ahmadov, Ermek Baibagyshov, Sally Bunning, Feras M. Ziadat, Zanele Mkize, Christine Hauert, Meng Lingqin, Talita Germishuyse, Dragana Milovanovic, Wang Yaolin, Isabelle Providoli, Brigitte Schuster, Hanspeter Liniger, Alexander Schöning, Jan De Graaff, Miodrag Zlatic, Rokhaya Daba Fall, Yann Kervinio, Carin Pretorius

Photo taken by: Lehman Lindeque, **missing on the photo:** Wolfgang Prante, Arjumand Nizami, Kurt Gerber, Markus Bürli, Anne Woodfine

ANNEX 3: CONTENT CD-ROM

1. Proceedings: ProceedingsWWSM08.pdf

2. Photo selection

3. Presentations (see below)

Symposium

- Morning presentations
 - WOCAT-Intro_Liniger.ppt
 - Ethiocat_Danano.pdf / Ethiocat_Danano.ppt
 - NEPCAT_Bhuchar.pdf / NEPCAT_Bhuchar.ppt
 - Philippines_Labios.pdf / Philippines_Labios.ppt
 - No-tillSwiss_Sturny.pdf
 - No-tillSwiss_Minder.pdf
- Afternoon presentations
 - ClimateChange_Woodfine-Sperling.pdf
 - ImpactsSLM investments_Schuster-Kutter.pdf
 - Mapping_Lindeque.pdf / Mapping_Lindeque.ppt
 - DecisionSupport_Schwilch.pdf / DecisionSupport_Schwilch.ppt
 - WOCAT-closing.ppt

Topic 1: Progress Reports

- 1.1 Activities at the global level
 - WOCAT- LADALocal.ppt
 - ISRIC activities 2007-2008.ppt
- 1.2 Activities at the national/regional level
 - ICIMOD_progress 2008.ppt
 - ORISSA_INDIA_2008.ppt / ORISSA_INDIA_2008.pdf
 - PHILCAT_2007-2008.ppt
 - CHINA_SWCMC_2008.ppt
 - China GEF_2008.ppt
 - Mongolia_progress 2008.ppt
 - Tajikistan_WOCAT_2008.ppt
 - Kyrgyzstan_2008.ppt
 - Serbia_WOCAT report_2008.ppt
 - SouthAfrica_WOCAT_2008.ppt
 - Ethiopia_SLM strategies&Knowledge.ppt
 - NIGCAT REPORT.pdf
- 1.3 New initiatives
 - No presentations

Topic 2: Special Topic

- Syria ICARDA 2008.ppt
- InternatLandWaterMang_deGraaff.ppt
- CLIMATE CHANGE_WORLP.ppt / CLIMATE CHANGE_WORLP.pdf
- DESIRE Introduction Oct 2008.ppt
- MoroccoWocat_2008.ppt
- SENOCAT.ppt / Projet_WOCAT_senegal
- Pakistan 2008.ppt

Topic 3: WOCAT Taskforce Progress

- ImpactMonitoring_2008.ppt
- DigitalProducts CMS_2008.ppt
- DigitalProducts QA online.ppt
- MappingTF Progress_2008.ppt
- R&E_2008.ppt

Topic 4: Questionnaires, Modules and Inventory

- WOCAT-Q new questions.ppt
- WSmodule_2008.ppt
- InventoryTable_2008.ppt

Topic 5: WOCAT/ LADA Mapping

- WOCATMap_GvL.ppt
- WOCATMapping_HPL.ppt
- LADA National_Lehman.ppt
- Senegal_Diallo.ppt

Topic 6: Decision Support and Up-Scaling

- DSSDevGwatt.ppt
- Sustainet.ppt

Topic 7: WOCAT and Global Issues

- GlobalIssues.ppt

Steering Meeting

- Strategy.ppt