

Up- and Out-scaling Sustainable Land Management and Achieving Land Degradation Neutrality

WOCAT Symposium, Addis Ababa 13 May 2019

Introduction

- Welcome and thanks
- WOCAT in short
- 3 major topics

Hanspeter Liniger

Director WOCAT CDE

Bern Switzerland



WOCAT in Short

(World Overview of Conservation Approaches and Technologies)

Global network: since 1992

- Secretariat CDE
- 8 Consortium partners
- Institutional and individual membership
- SLM specialists, decision makers implementers

biennial international network meeting:
→ last Cali Colombia June 2017 (CIAT)



WOCAT's mission / assets to support countries, SLM projects and programmes



Global WOCAT SLM Database (field experiences)

WOCAT SLM DATABASE

[Home](#) [Search SLM Data](#) [Add SLM data](#) [My SLM Data](#) [Login](#) [English](#)

WOCAT

 **United Nations**
Convention to Combat
Desertification

the Global Database on Sustainable Land Management
is the primary recommended database by UNCCD

WOCAT Global SLM Database

Information for UNCCD Parties

Search SLM data

Add SLM data

Search SLM Data

All SLM Data

Search



SLM Technologies

An **SLM Technology** is a land management practice that controls land degradation and enhances productivity and/or other ecosystem services.

View all



SLM Approaches

An **SLM Approach** defines the ways and means used to implement an SLM Technology, including the stakeholders involved and their roles.

View all



UNCCD Prais Practices

A UNCCD PRAIS Practice is a best practice in SLM, as previously shared through the UNCCD PRAIS system in the UNCCD reporting process.

View all

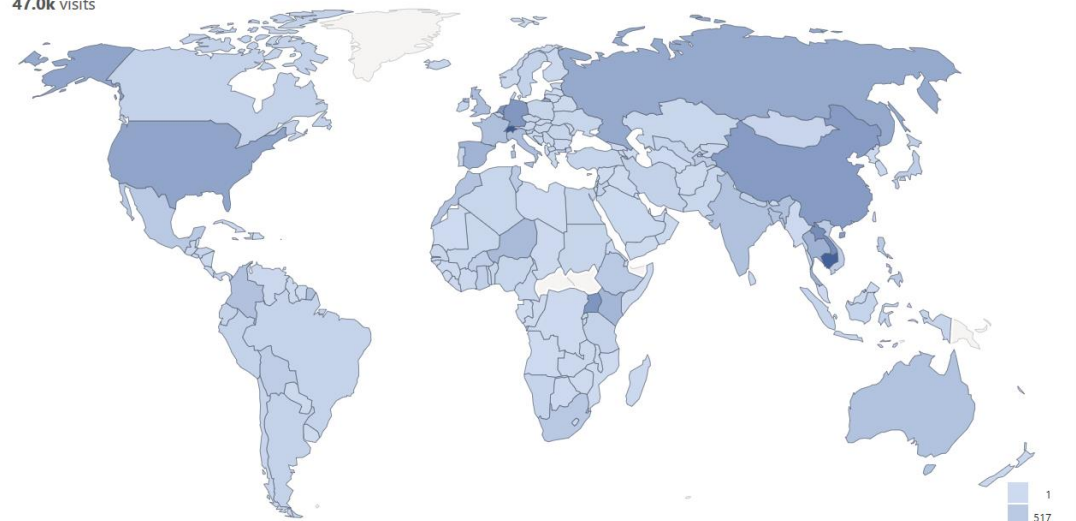
Key Numbers

- 1913 SLM Practices published from 129 countries by 368 users.
 - 1019 SLM Technologies
 - 451 SLM Approaches
 - 443 UNCCD PRAIS Practices
- 165 new practices drafted in the past 90 days.
- 46974 visits from 187 different countries since launch in August 2016.



Visitor Map

47.0k visits



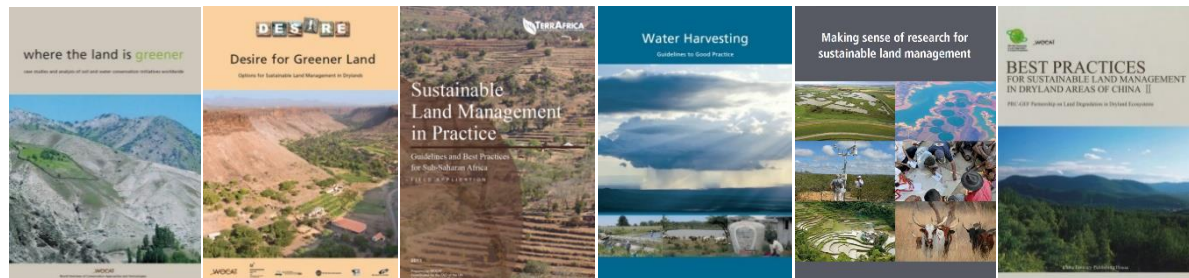
Countries

World-Wide

Visits

Solid & easily accessible WOCAT knowledge products

WOCAT and its partners have produced national, regional and global **books, fact sheets, pamphlets, policy briefs. ...**



... SLM videos: a voice to land users.

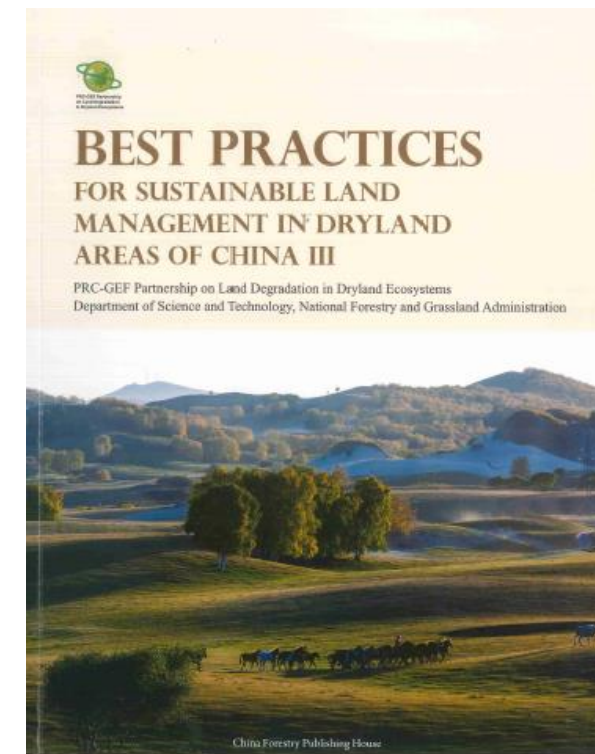
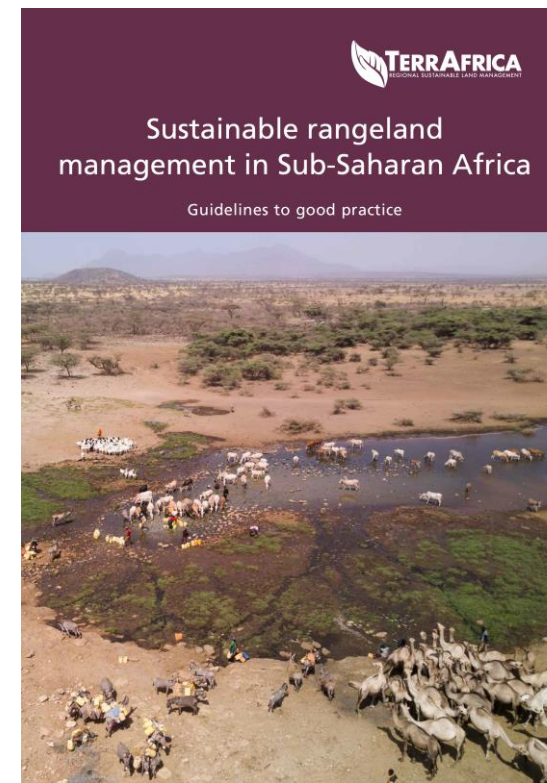


www.wocat.net

EthioCAT

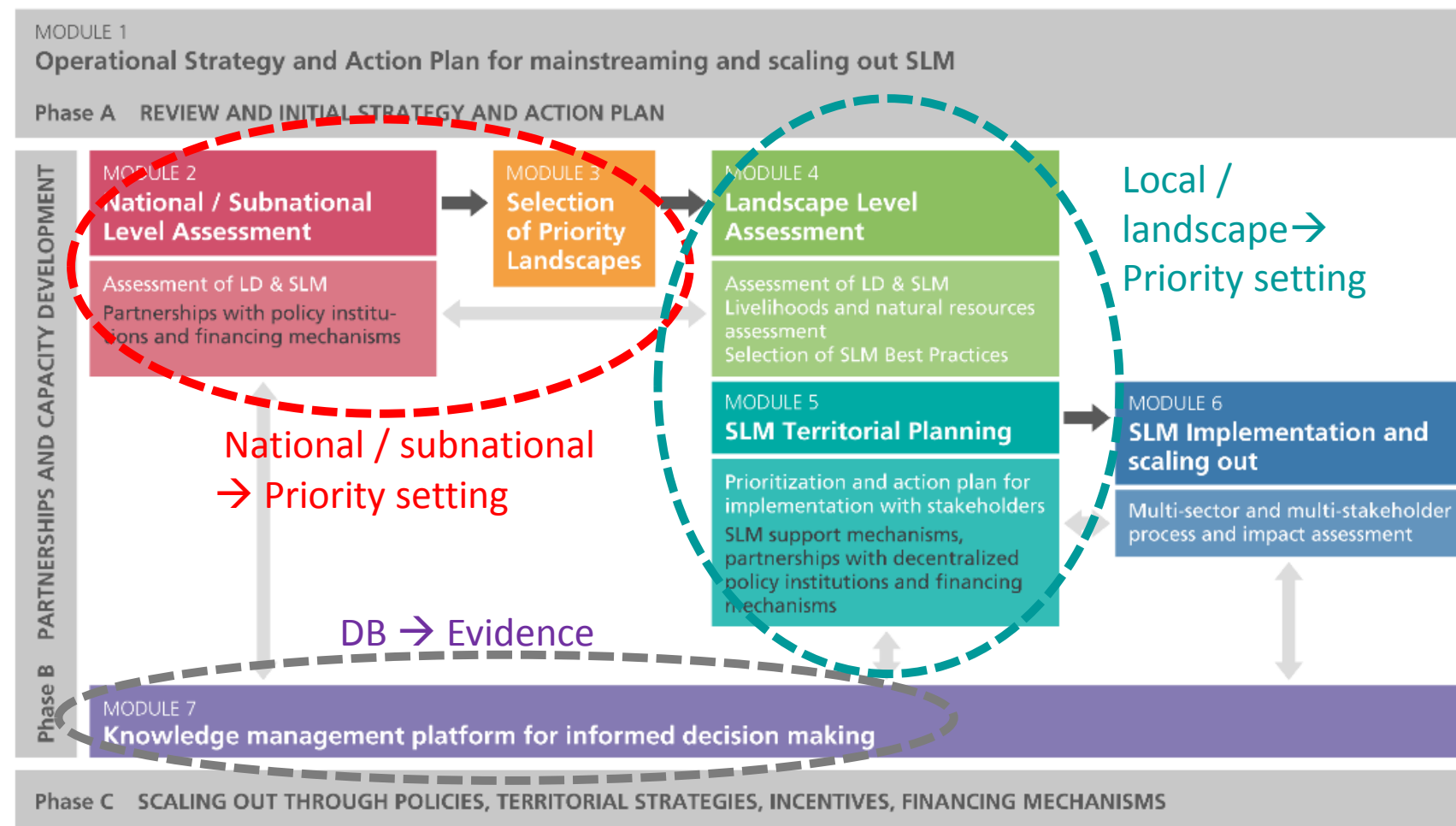


... lots of other national and regional ...CATs



Using knowledge for evidence-based decision making

Decision Support Framework for SLM mainstreaming and scaling out

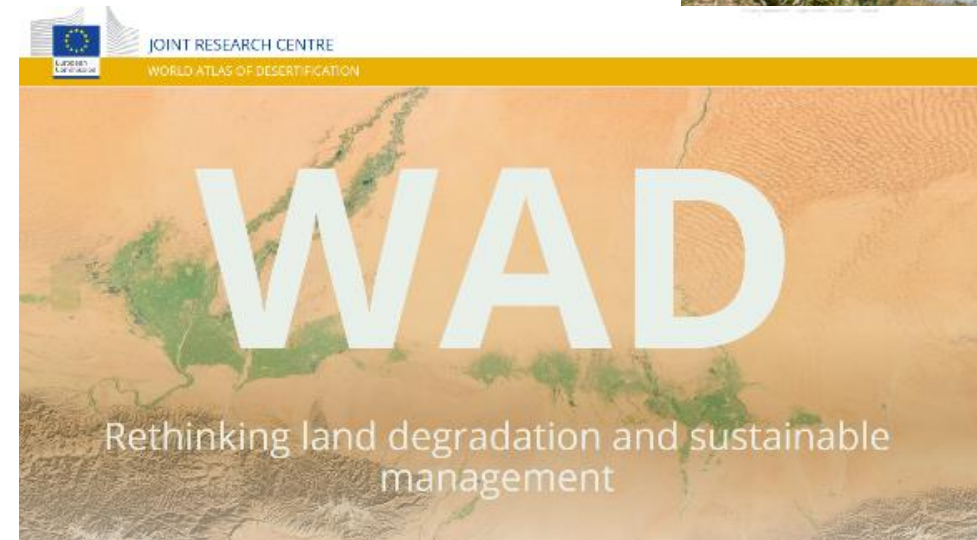
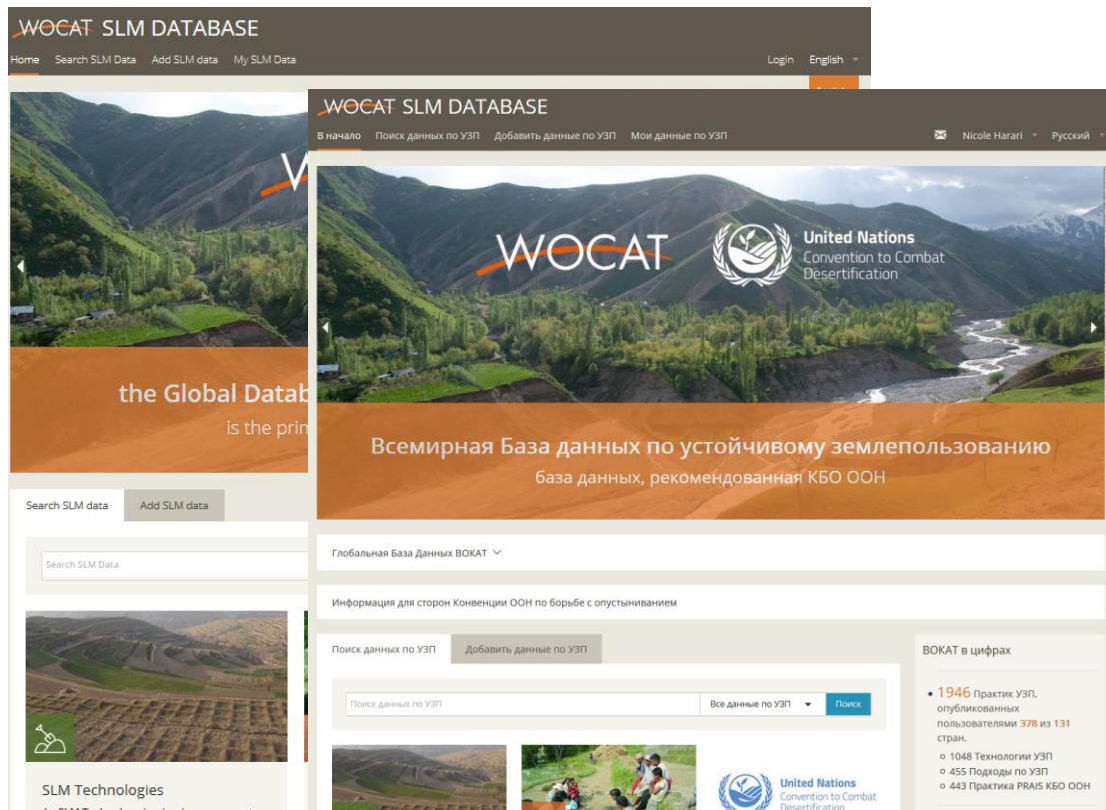
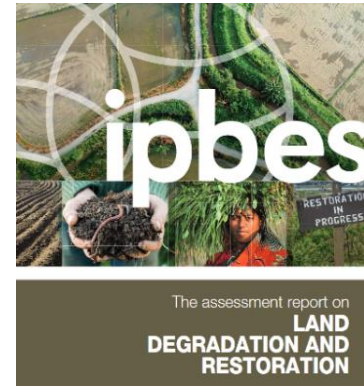


- Several presentations will refer to this

s. DS-SLM presentations

WOCAT's global position

- WOCAT's **SLM definitions and tools** are globally used
- WOCAT **Global, regional and national SLM Database**



BOX 4:

Five major land use types definition according to WOCAT (adapted from WOCAT 2002)

Cropland: annual cropping, perennial cropping, tree and shrub cropping.

Grazing land: extensive and intensive grazing lands.

Forest/woodland: natural forest, forest plantations, other.



Up- and Out-scaling Sustainable Land Management and Achieving Land Degradation Neutrality

Up- scaling: bring SLM in local, national and global agendas, in decision making, investment / implementation programmes

Out-scaling: Spreading SLM on the ground

Land Degradation Neutrality: one of the SDG's (and other SDG's)
no further net degradation

1. Topic: Dealing with drivers: hindering → enabling, opportunities

Role of knowledge, education and capacity building: growing challenges for SLM:

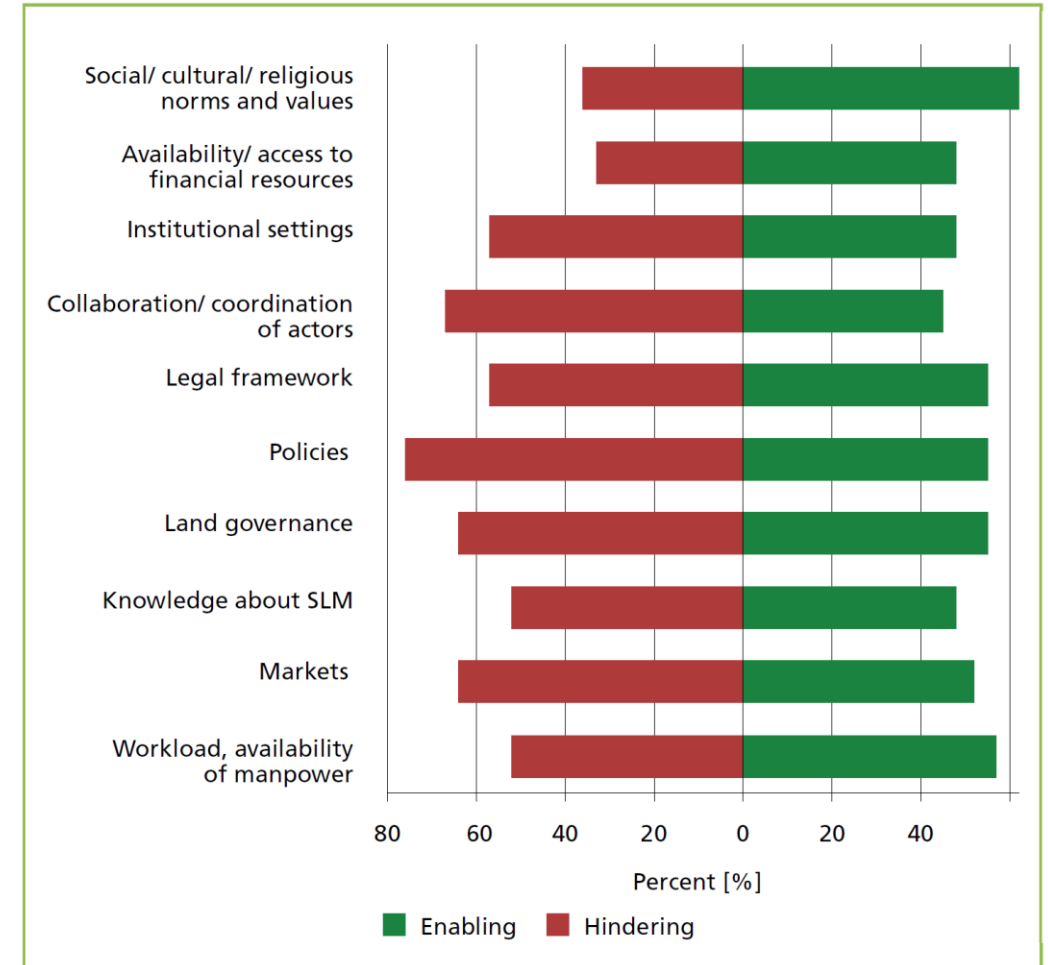
- tipping points for: land resources and human well-being (→ migration)
- fast changes need adaptation

... versus:

- Investment in training, capacity building, extension service?

→ Contribution of WOCAT?: to close the capacity gap... improve policies, legal frameworks, attract funding,...

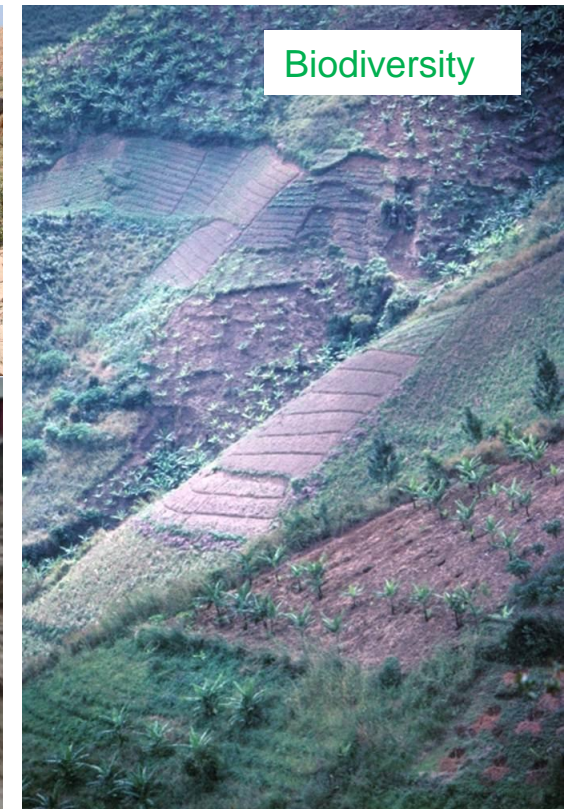
Global WOCAT dataset → specific e.g. SSA rangelands



Is SLM one of the most important cross-cutting actions for achieving SDGs → YES!!!

... but this is not recognized → what to do?

- all 3 UN Conventions: **Desertification**, **Climate Change** and **Biodiversity**
- SDGs: ...Food Security, Water conflicts/scarcity, Land Degradation Neutrality, ...



1. Topic: Dealing with drivers: hindering → enabling, opportunities

2 presentations (FAO Bangladesh and Uganda Land Care)
and discussion:

Panel Discussion:

Compiled by Chair and Rapporteur

write your comments, ideas on a paper and hand it over to Chair and rapporteurs

→ Results to be summarized by Chair before closing of the symposium

2. Topic: Innovative pathways: towards Land Degradation Neutrality

Framework for Monitoring and Reporting on SDG Target 15.3

Indicator 15.3.1
Proportion of land
that is degraded over
total land area



Sub-Indicators
UNCCD (CBD, UNFCCC)
Reporting Mechanisms



**Data from
multiple sources**
FAO, GEF and other
Reporting Mechanisms



WOCAT-FAO toolbox and other
tools (such as Trends.Earth)

Source: FAO

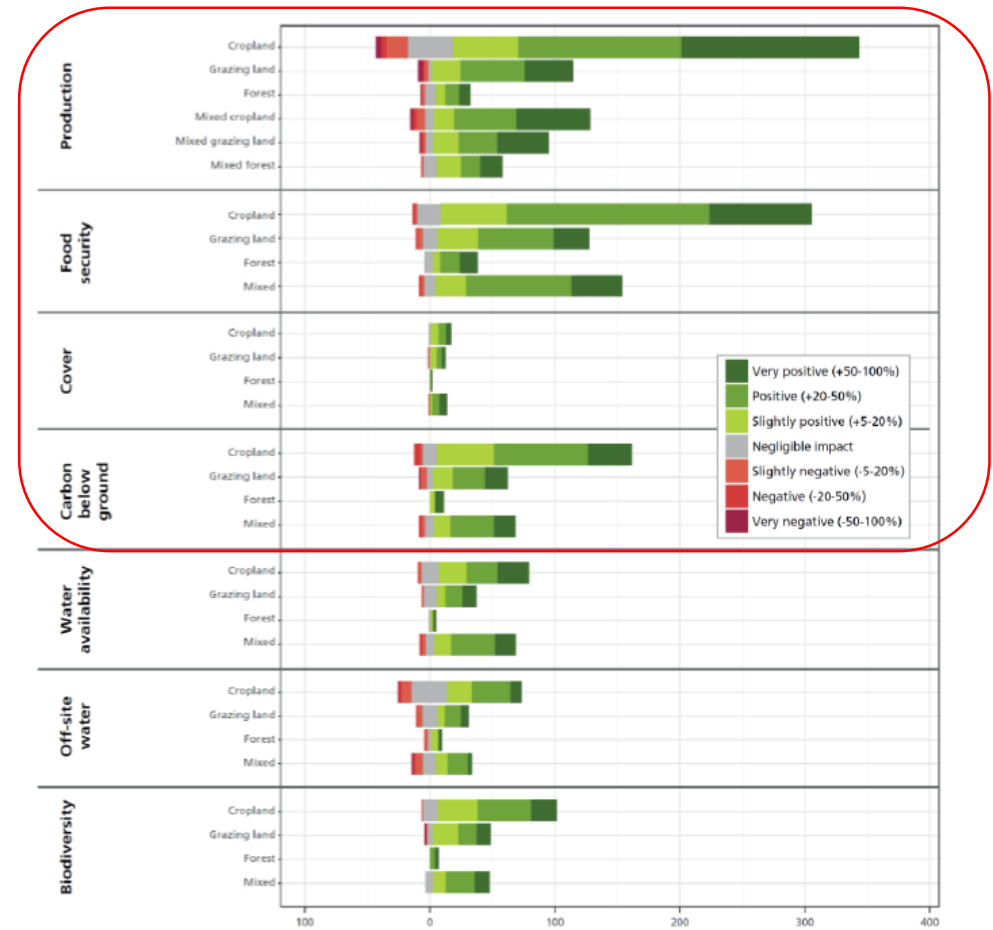
Achieving land degradation neutrality: The role of SLM knowledge in evidence-based decision-making

Hanspeter Liniger^{a,*}, Nicole Harari^a, Godert van Lynden^b, Renate Fleiner^a, Jan de Leeuw^b,
Zhanguo Bai^b, William Critchley^c

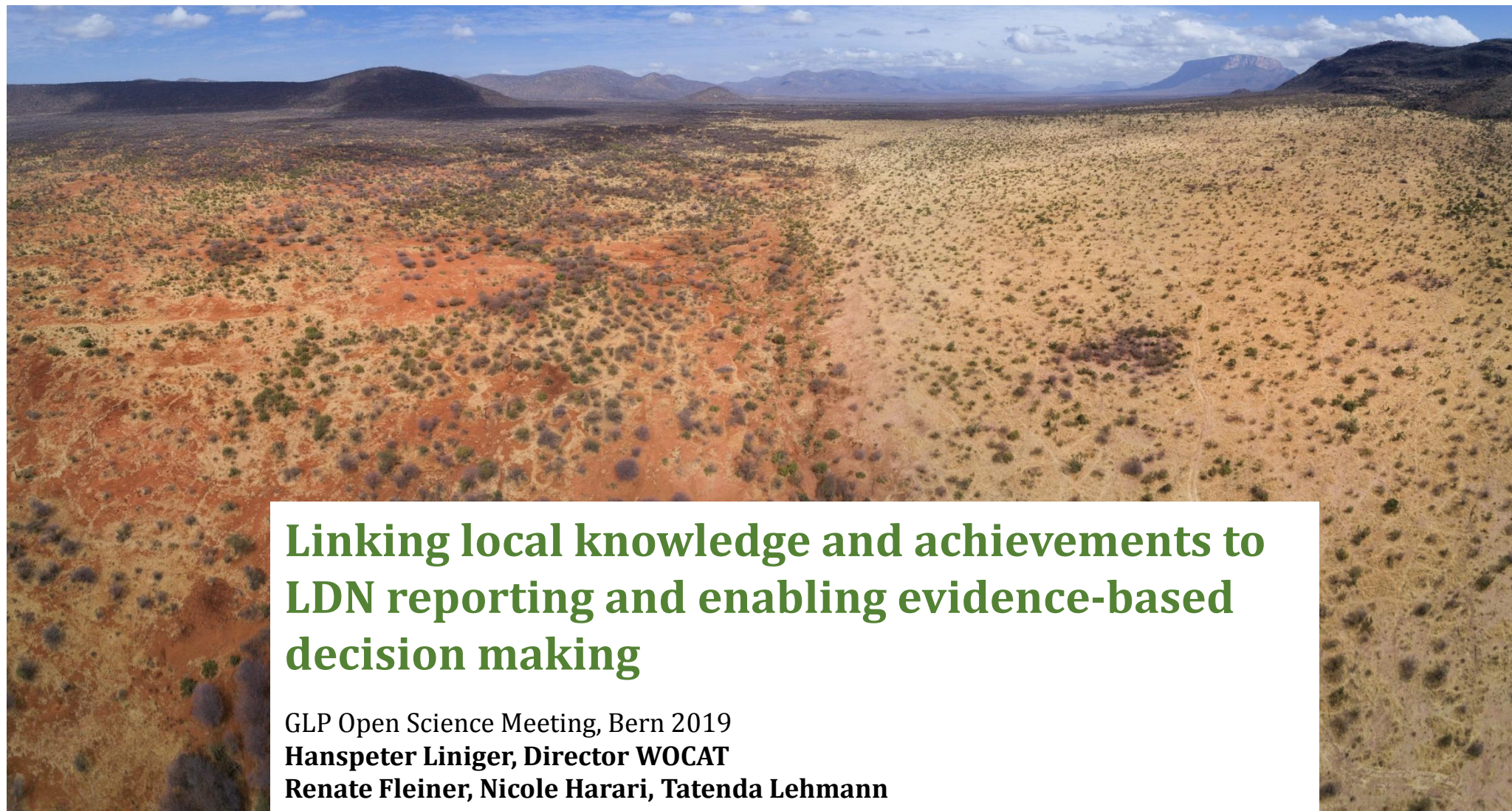
^a Centre for Development and Environment (CDE), University of Bern, Switzerland

^b ISRIC, Wageningen University, Netherlands

^c Sustainable Land Management Associates, UK



2. Topic: Innovative pathways: towards Land Degradation Neutrality



**Linking local knowledge and achievements to
LDN reporting and enabling evidence-based
decision making**

GLP Open Science Meeting, Bern 2019

Hanspeter Liniger, Director WOCAT

Renate Fleiner, Nicole Harari, Tatenda Lehmann

Local Assessment: e.g. Woody Weeds

versus

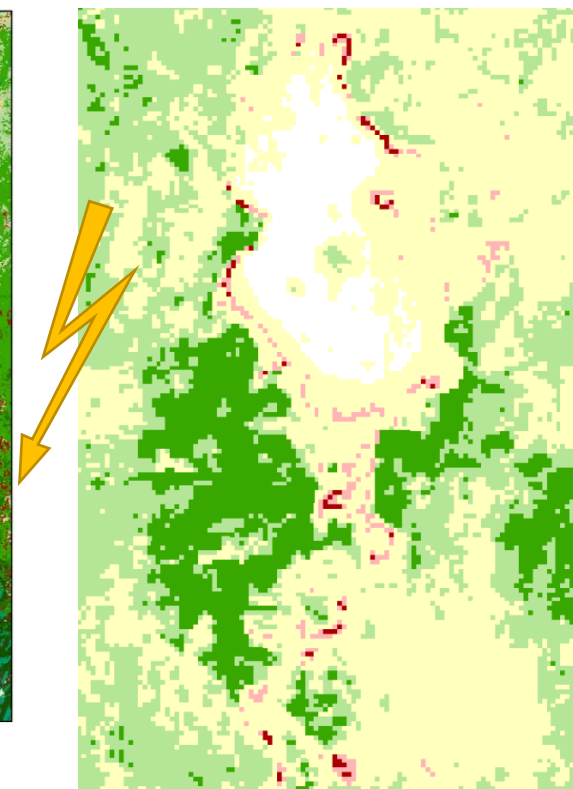
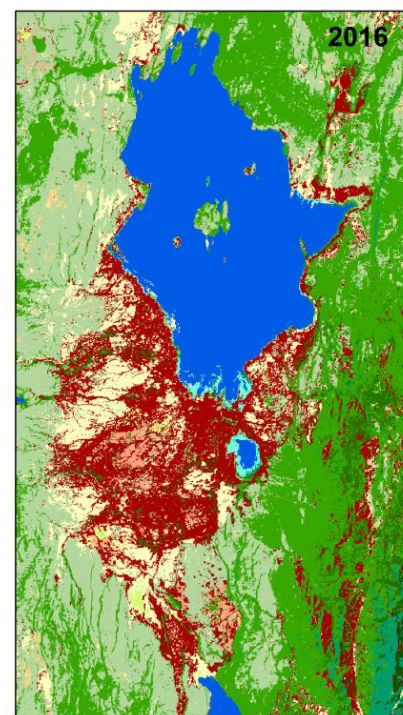
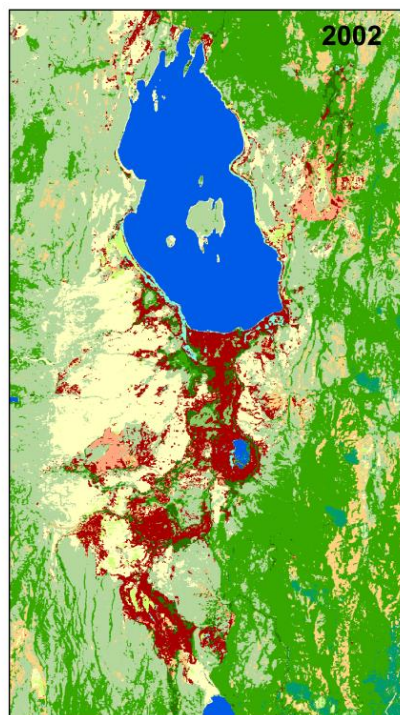
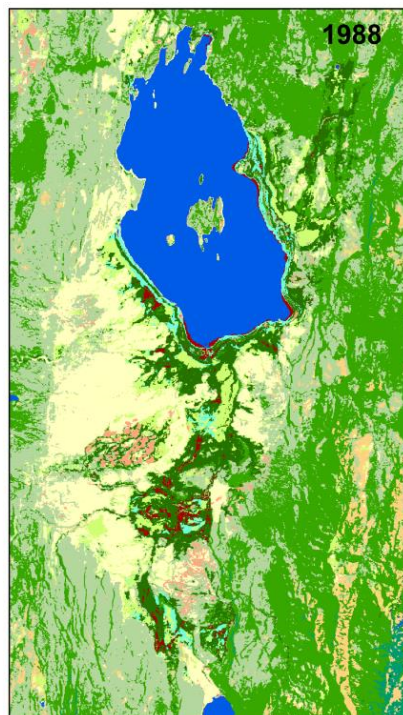
LDN Productivity Trends.Earth

Legend

- Prosopis spp.
- Acacia tortilis
- Acacia reficiens
- Mixed vegetation
- Indigenous forest
- Plantation forest
- Water
- Rainfed cropland
- Bareland
- Grassland
- Balinites
- Irrigated cropland
- Water weeds



0 2.5 5 10 km



Legend

Productivity trajectory degradation (2002-2016)

- Degradation (sign. decr. $p < .01$)
- Degradation (sign. decr. $p < .05$)
- Stable (no significant change)
- Improvement (sign. incr. $p < .05$)
- Improvement (sign. incr. $p < .01$)



The evidence base

SLM knowledge from the
WOCAT Global SLM Database
... the primary recommended by **UNCCD** for
the SLM Best Practices reporting



Kalama Community Wildlife Conservancy site treated with restoration technology (right) bordering untreated area (left). (Hanspeter Liniger)

Rangeland Restoration by cutting invasive species and grass reseed and managing grazing (Kenya)

DESCRIPTION	LOCATION
-------------	----------

IMPACTS

<p>This 'Ran approach reseedin pressure</p> <p>The 'Ran 'core cor tourism) reduced 9,500 Ha</p> <p>The mair Acacia re known a shrub bu and dist large are with A. r making t that the : suppress infiltratic (research increase: cover. Ra of their p</p> <p>The mair trunks an and charc the bare l bare soil i termites : infiltratic: particula</p>	<p>Socio-economic impacts</p> <p>fodder production</p> <p>decreased increased</p>
	<p>Ecological impacts</p> <p>soil organic matter/ below ground C</p> <p>decreased increased</p>
	<p>vegetation cover</p> <p>decreased increased</p>
	<p>biomass/ above ground C</p> <p>decreased increased</p>
	<p>plant diversity</p> <p>decreased increased</p>

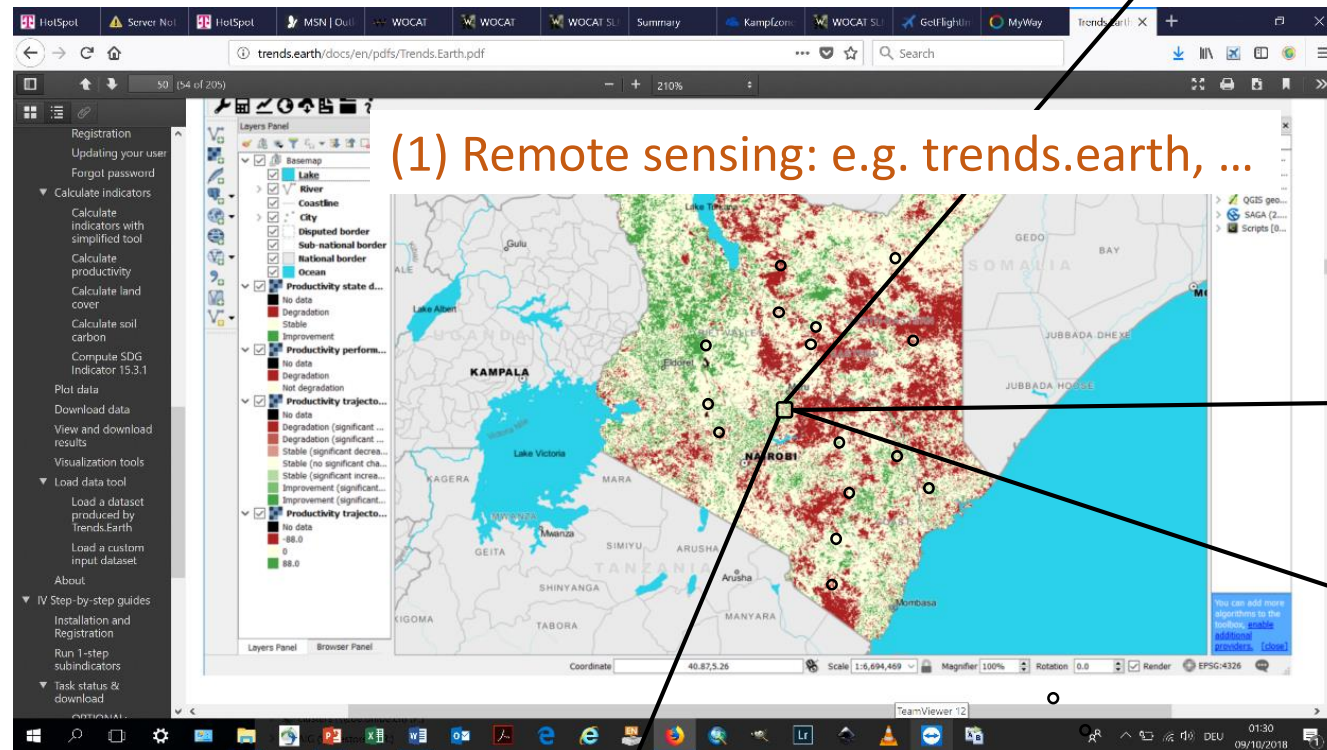
COST-BENEFIT ANALYSIS

<p>Benefits compared with establishment costs</p> <p>Short-term returns</p> <p>Long-term returns</p>	<p>very negative very positive</p> <p>very negative very positive</p>
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Enriching and using evidence base for LDN

Linking local - national - global

(2) WOCAT-UNCCD SLM BP reporting and Carbon Benefit Project

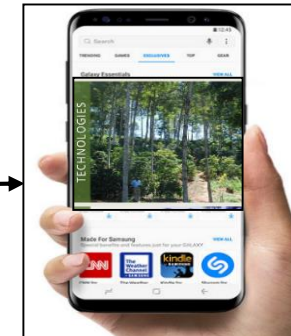


(1) Remote sensing: e.g. trends.earth, ...

<https://www.wocat.net/en/global-slm-database>

UNEP , Colorado State University

<http://www.carbonbenefitsproject.org>

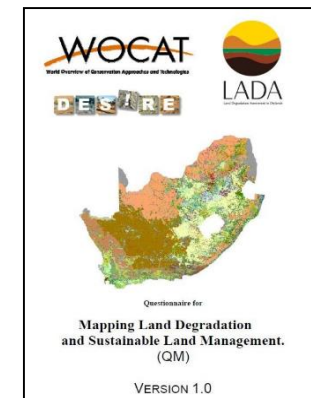


(3) Mobile App
LandPKS

LandPotential. Org
WOCAT T and A App
(developed in Thailand)

(4) Add. Data e.g. Collect Earth (FAO)

www.collect.earth



(5) Validation
through expert
assessment

WOCAT-FAO

www.wocat.net

2. Topic: Innovative pathways: Showing off-site impacts



Off-site: Beijing
Sand and Dust Storm
Pollution

...



On- and off-site benefits of SLM

Examples:

- Haiti / China (Floods – Sedimentation)
- Colombia (Floods – Sedimentation)
- Nepal: Spring protection: → water
- Kenya: Hydropower, Nairobi Water Supply, Biodiversity
- Island wind erosion and deposition
- Switzerland: Pollution of lakes, drinking water

2. Topic: Innovative pathways: Showing off-site impacts

e.g. the tragedy of the drylands

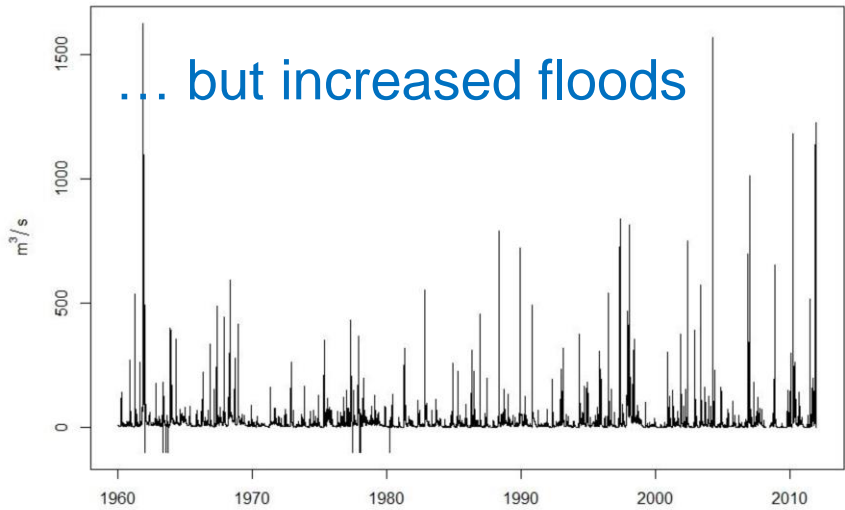
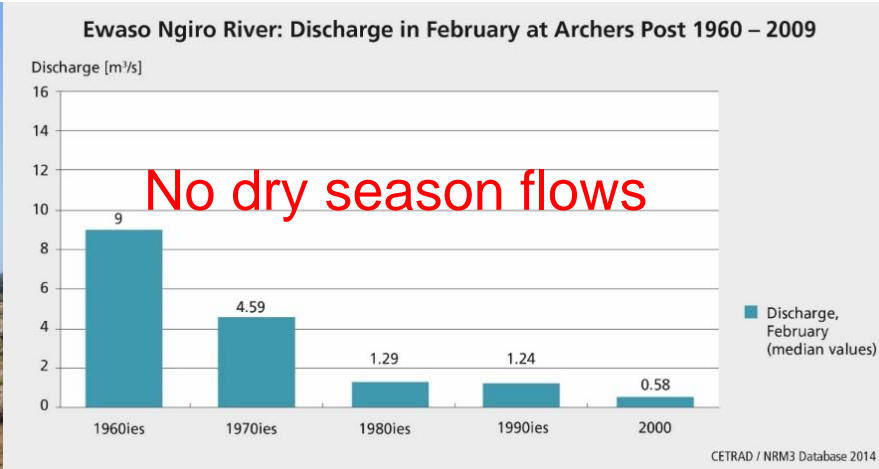


Figure 56: Recorded discharge of the Ewaso Ng'iro River at Archers Post from 1960-2011. The data show a broad range of discharge values recorded between -100 m^3/s and 1626.89 m^3/s , its mean value amounting 21.52 m^3/s .

Topic 2: Innovative pathways: how to integrate innovative SLM and LDN pathways into successful up- and out-scaling initiatives?

5 presentations (CONICET Argentina; FAO Colombia; WLRC Ethiopia; UZGIP Uzbekistan; Institute of Geography Russian Federation)

Panel Discussion:

Compiled by Chair and Rapporteur

write your comments, ideas on a paper and hand it over to Chair and rapporteurs

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Topic 3: Community of practice: how can WOCAT, partner organizations and other institutions work better together to support the up- and outscaling of SLM and achieving LDN

3 presentations (CIAT Ethiopia, University Cambodia, ICIMOD Nepal)

Panel Discussion:

Compiled by Chair and Rapporteur
write your comments, ideas on a paper and hand it over to Chair and rapporteurs

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Participatory resource mapping under solar panels in Merti (Caroline King Okumu).

Enjoy the day

Forget about urgent mails and deadlines
Be present and enjoy others being present,
Exchange and get to know each other

“If you want to learn, learn from those who have done it”
“SLM and WOCAT it’s a way of life and lifetime commitment”

Group photograph