

The ELD Initiative and the Global Drought Report

IDMP Meeting

25th June 2024

www.eld-initiative.org



The ELD Initiative

A global initiative, set up in 2011 by



The ELD Secretariat is hosted by

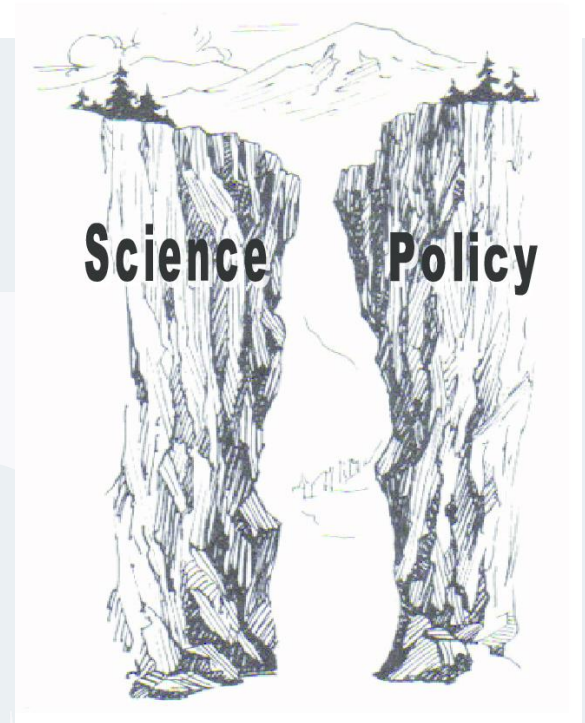


Objective of the ELD Initiative

Provide economic evidence to

- demonstrate the true values of land,
- reveal the costs of land degradation and the benefits of sustainable land management
- promote (transformative) land solutions

to support decision-making.



ELD Mission

The ELD Initiative makes the values of land count to inform, promote, and scale land solutions for transformative change. ELD is a global partnership that builds bridges between science, policy, and practice.

The ELD Initiative

- i) provides tools, approaches, and methods, as well as data on the values of land and ecosystem services that can inform land solutions,
- ii) promotes the use of transformative land solutions with global and regional studies as well as context and country specific assessment processes that include knowledge, evidence, and stakeholder engagements, and
- iii) scales its approaches developed and applied under i) and ii) with cross-country and cross-stakeholder learning, partnerships, capacity-building, and communication.

Our ultimate objective is to **boost action and investment** for sustainable land management and ecosystem restoration to bring us close to our aspired vision.



Looking back on our outputs



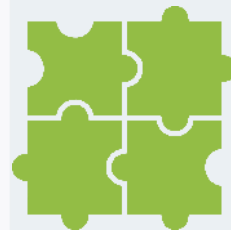
9 **global** and 6 **regional reports** raised awareness and informed policy processes such as UNGA, UNCCD, AMCEN, G20 and G7



Developed the internationally recognized “**6+1 step approach**” to assess the value of land



31 national, regional, or local level **case study assessments** in 22 countries to inform policy and decision-making



Build a **network** of professionals from universities, NGOs, international and development organisations, and consultancies



1,877 professionals – decision-makers, practitioners, scientists, and experts – capacitated with **trainings and courses**



7,000 **social media** followers, and 168,518 views of ELD videos on YouTube

ECONOMICS OF
LAND DEGRADATION
INITIATIVE



OUR NEW
ELD Working Group
Linking Science to Policy and Practice for Sustainable Land Management

Vanja Westerberg
Altus Impact

Richard Thomas
ELD Scientific Advisor

Chris Magero
IUCN

Robert Costanza
University College London

Ida Kubiszewski
University College London

Rudolf de Groot
Foundation for Sustainable Development

Alisher Mirzabaev
Unique Land Use

Martin Dallimer
University of Leeds

Bernd Hansjürgens
Helmholtz Centre for Environmental Research

Marcella D'Souza
Watershed Organisation Trust

Mesfin Tilahun Gekay
Mekelle University and NMBU

Lindsay Stringer
University of York

ELD Global Report on the Economics of Drought Resilience

- In light of the upcoming **UNCCD COP16 topics**; specific focus on **UNCCD's specific perspective of land-based approaches**
- Report will combine **global analyses with selected in-depth regional or local analyses**
 - include assessments and a deep analysis on the **economics and politics of drought resilience**, flag the **socio-economic impacts of drought** and analyse the **costs and benefits of effective (upfront) policy and market-based measures**.

Objectives of the Global Drought Report

- **provide evidence for public and private actors at all levels** and inform national decisions taking processes on policy and investment with actionable insights and recommendations with a focus on sustainable land management and land restoration.
- Real costs for societies and economies caused by drought in case of inaction.
- Costs and benefits of effective policy and management measures for land-based **proactive** drought risk management.
- Business cases for **proactive** drought risk management - > co-benefits.
- Pathways (best practice) to enhance drought resilience of soils and land in strongly affected regions through the change in land-use practices (NBS, SLM, restoration).
- Support the agendas of UNCCD, IWG, IDRA, UNFCCC

Target audience:

1. Policy makers at country level to inform national strategy processes for proactive drought management (UNCCD national Drought Strategy campaign)
2. Finance institutions to address their knowledge gap for investments into NBS



Background of the Global Drought report

Partners and contributors

- Economics of Land Degradation Initiative (ELD)
- UNCCD Secretariat
- European Commission
- German Institute of Development and Sustainability (IDOS) / IWG on Droughts



- **UNU-INWEH**
- **BioVision Foundation**
- **CIFOR-ICRAF Africa Office**
- **IUCN**
- **WOTR**
- **Mulloon Institute**
- **Commonland**
- **GIZ**
- **UCL Davis**
- **UFZ**

Background of the Global Report on the Economics of Drought



- **Costs** of increased drought to societies and economies are historically **substantially underestimated, persistent knowledge gaps** particularly with regards to those costs related to drought that spread across different economic sectors and social actors > **very often resulting in momentous inaction** when it comes to drought preparedness.
- The costs and risks of increasing drought-related natural hazards are **disproportionately borne by poor and rural households**.
- **Nature-based solutions** are very effective and cost-efficient measures to improve the capacities to adapt and become more resilient against drought risks.
- The **UNCCD facilitates** national decision-makers by advocating for proactive, coordinated, and holistic **drought risk management**.
- This study focuses on land-use based drought effects in areas of highly degraded land, **supporting the UNCCD agenda in facilitating national drought management**.

Structure of the Global Drought report



Chapter I: Intro, Framing, Political Context

Chapter II: Nature-based Solutions based on SLM for adaption to drought and socio-political framework conditions

- a) NBS for adaptation based on SLM
- b) Social/political framework for transformation

Chapter III: Economic modelling and CBA-Scenarios

Chapter IV: Conclusion and Recommendations

National studies and partner institutions

Case studies

- Watershed Organisation Trust (India)
- CIFOR-ICRAF-Africa (Sahel), BioVision
- Commonland (Spain)
- The Mulloon Institute (Australia)
- UFZ (Germany)
 - linking up with UCL Davies
- N.N. (GIZ Tunisia)
- IUCN Kenya
- N.N. Chile (National Forest Corporation)



Case Studies			
Land	Regional Characteristics	Institution	Case
Australia	High-scale farming; rural; drylands	The Mulloon Institute	Rehydration (landscape remodelling)
India	Small-scale farming; rural; drylands	WOTR	Watershed restoration and management in agricultural landscapes
Africa (Sahel)	Forest management; woodlands/croplands	ICRAF-CIFOR Africa	Agroforestry
South Europe	Urban water supply watershed management;	Commonland tbc	Restoration, watershed management;
California		UCL, Davis,	tbc
Chile	Dryland watershed management	tbc	Drylands management, vineyards, agroecology
Tunisia	Semi-arid agricultural landscapes, extreme drought effects	tbc	Agroecological practices in olive production (TBC)
Germany	Experimental investigation of impacts of climate change on soil productivity	UFZ/UCL	Global Change Experimental Facility – modelling in cooperation with UCL Davies
Spain	Large-scale Watershed management	Commonland	Restoration of watersheds in urban context

Upcoming Milestones

- **Case studies's workshop: 7th – 8th July, Bonn**
- **Presentation of results: HMNDP+10, 2nd Oct, Geneva**
- **Presentation of final report as UNCCD flagship report, 7th December, UNCCD COP16, Resilience Day**



Proposed Case Study

Enhancing drought resilience through Nature based Solutions:

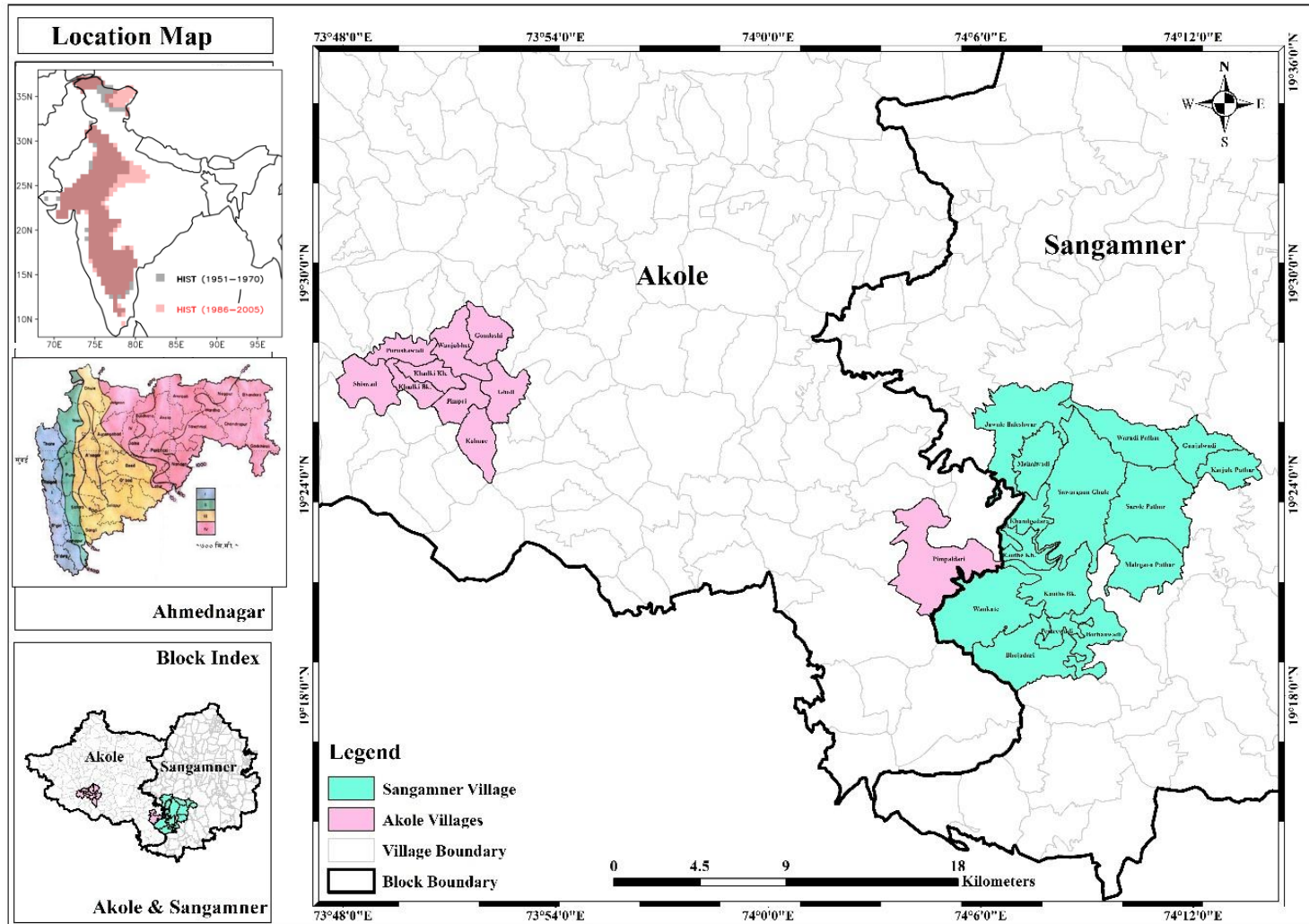
A case study from India's Semi-arid landscapes

by

Watershed Organisation Trust (WOTR)



Proposed Study Area



- WOTR implemented Climate Change Adaptation (CCA) project implemented in **25 villages**.
- 25 villages are divided into two clusters
High Rainfall Zone (Akole)
Rainfall Scarcity Zone (Sangamner)
- WSD and SLM work started b/w 1996-2005 in some villages. In remaining villages, work started in 2010-11

Project Interventions



Ecosystem Restoration through Sustainable Land Management (SLM)

- Soil and Water Conservation works from ridge to valley
- Afforestation: Plantation of indigenous trees
- Biodiversity Conservation
- Following the Ecosystem based Adaptation approach

Water Stewardship:

Supply & demand / water use management

Climate Resilient Agriculture: Promotion of biological, botanical and organic formulation System of Crop Intensification (SCI), Agro-met advisories (locale and crop specific)

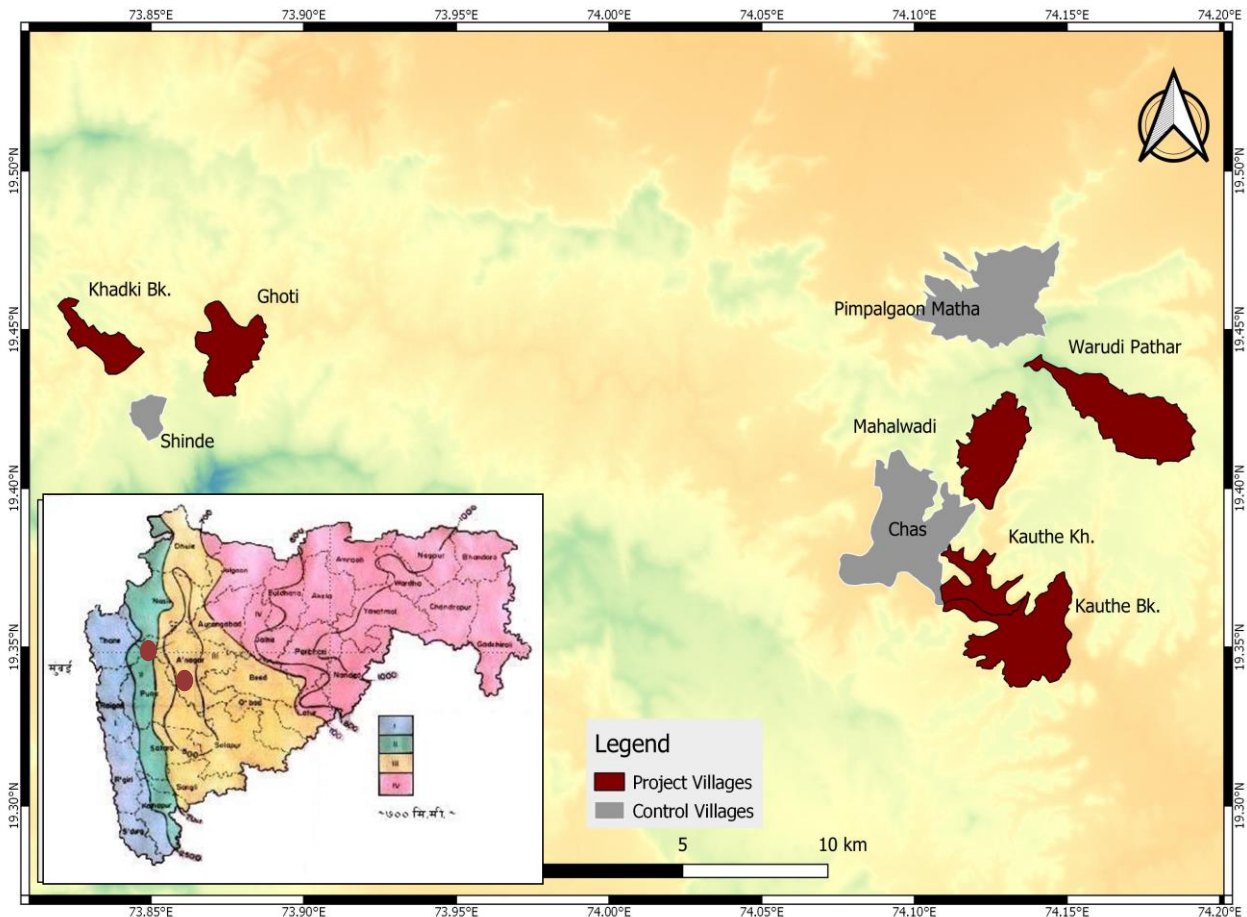
Community engagement

Local Institution building (inclusive)
Gender mainstreaming



Proposed Study Area, Objectives & Design

We propose an in-depth economic modelling study of 6 villages



- Assessment of drought resilience in the 6 study villages through an integrated drought risk assessment approach (agro-meteorological, hydrological, geospatial, and socio-economic)
- Assessing the impacts of SLM interventions during drought periods using geospatial (baseline 2009-10 to drought years 2012-13; 2015-16; 2018-19; 2023-24) and socio-economic data (comparing baseline year 2009-10 to drought year 2018-19)
- Economic modelling of SLM in drought and normal rainfall years

Proposed Methodology: Drought Assessment

- **Meteorological Assessment** – Onset of monsoon, Rainfall deviation, Standardized Precipitation Index (SPI)/Standardized Precipitation Evapotranspiration Index (SPEI), Continuous Dry spell
- **Hydrological Assessment** - Surface, ground and irrigation water availability
- **Agricultural Assessment** – Crop Area, Crop yield, Soil moisture

Proposed Methodology: Overall

- Assessment of biophysical parameters using geospatial tools and data (LULC change, NDMI, Soil Moisture, LST, NDVI)
- Ecosystem Services in project villages
- Drought analysis and future climatic projections for the study villages
- Socio-economic analysis of project villages pre and post project interventions (during drought years)
- **ELD 6+1 methodology** for economic modelling

Expected Outcome(s) from the Case Study

A detailed case study report: providing evidence of economic benefits of investment in SLM and related interventions to reduce and manage the drought impacts

Document the role of community management and engagement that sustains the impact

Discussion on the Global Drought report I



From your respective perspectives:

1. Do our research questions **cover the crucial aspects** to make a **convincing economic case for proactive drought resilient land management?**

2. Are the expected results likely to provide **sufficient guidance** on how the transition towards sustainable and drought-resilient land use can succeed?

3. Have we generally **forgotten something important** – is our perspective restricted?

Discussion on the Global Drought report II

We would like to cooperate with you!!!

- **Peer review?**
- **Case studies?**
- **Best practice examples?**

For reference of ELD's work, please refer to our case studies:

[Publications - ELD Initiative \(eld-initiative.org\)](http://eld-initiative.org)



Get further information

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ELD

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