

# ECONOMICS OF LAND DEGRADATION & SUSTAINABLE LAND MANAGEMENT



Supporting Evidence-Based Decision Making

John Soussan

Stockholm Environment Institute

# The Purpose

An initiative to develop a comprehensive methodological approach and evidence base for assessing the costs of land degradation and the economic rationale for sustainable land management



# The Rationale

- Land resources underpin the economies of nations and the livelihoods of people across the developing world
- In many places these resources are being degraded by a series of pressures, and climate change will only make things worse
- The value of these resources, to national development and in poverty reduction, is often not understood properly



# The Problems



- Are well understood and are why the UNCCD was created
- Variable and changing climates, poor management and over-exploitation of land resources and land-use changes all jeopardise the productivity of lands and the integrity of ecosystems
- Problems often most acute where poverty and dependence on land resources are highest

# The Solutions

- Are known (technically) – many examples of SLM systems that reduce & reverse land degradation
- Many are built on traditional livelihoods, but add new knowledge and management practices
- SLM can have the dual benefit of reversing land degradation and improving livelihoods of the poor
- To be effective, we have to integrate the *full* value of land into decision-making



# Some Basic Concepts

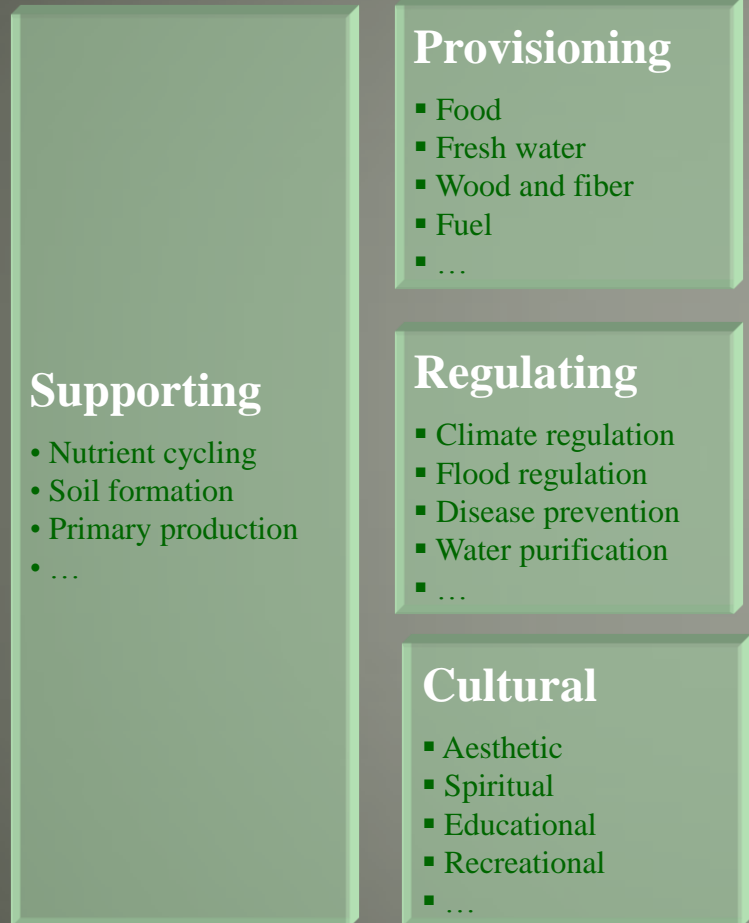
- We need to understand some concepts that are unfamiliar to many if we are to appreciate the full value of land resources
- Understanding this range of values, and the potential trade-offs between them, is the basis for rationale choices in sustainable land management



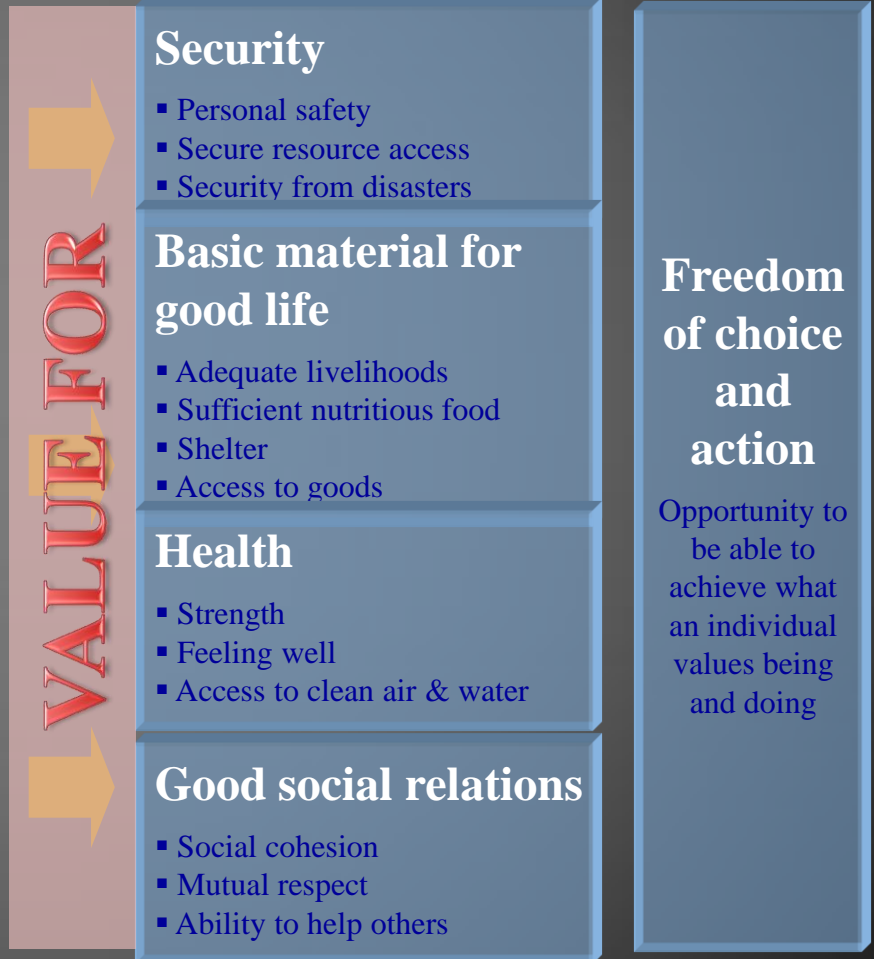
# The MA Framework

## CONSTITUENTS OF WELL-BEING

## ECOSYSTEM SERVICES



Life on earth - biodiversity

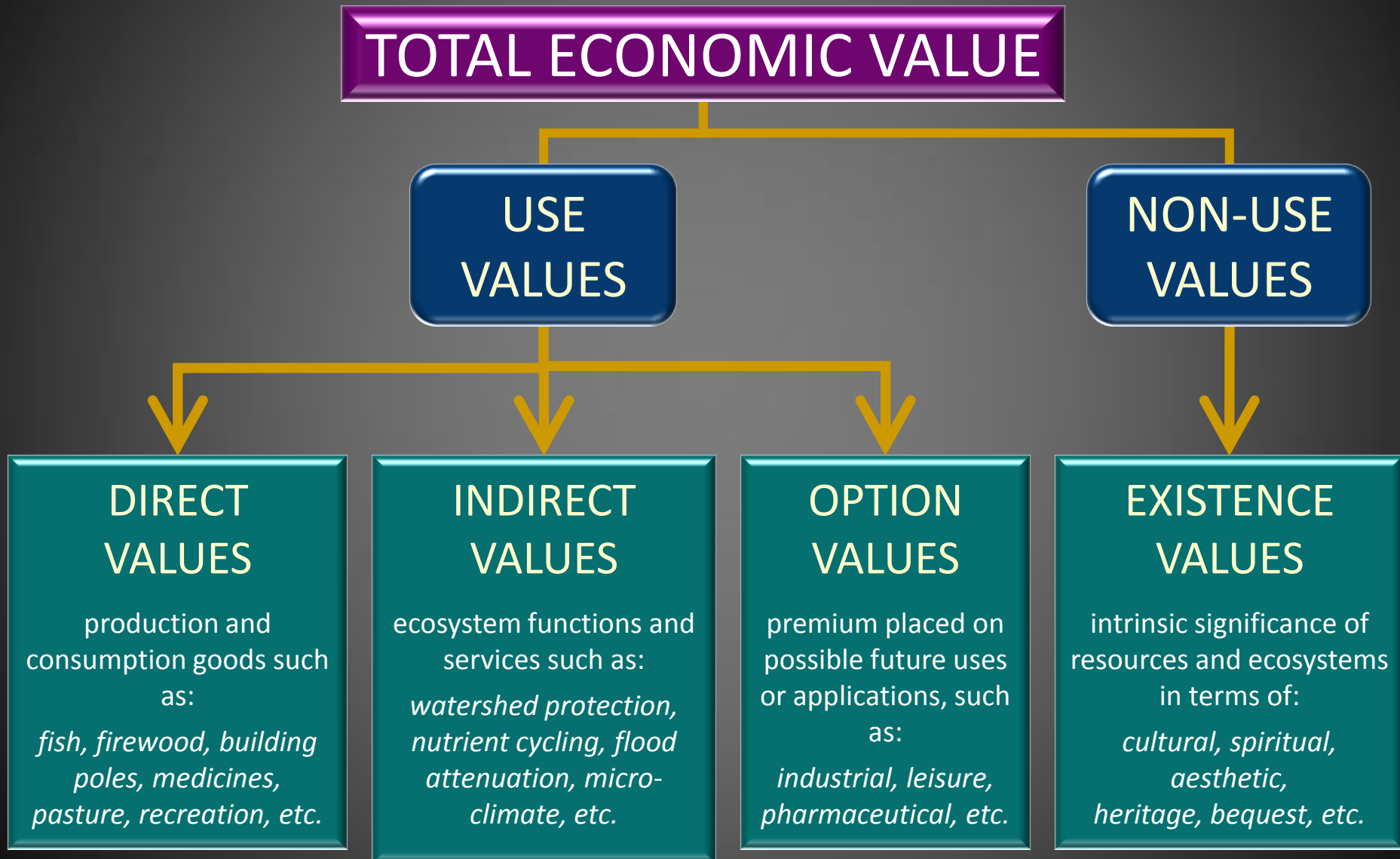


# The Return on Ecosystems Investments





# The Total Economic Value Framework



# Understanding the Values of Land

- Land resources generate a wide range of ecosystems services values, many of which are not usually considered when making decisions on land management regimes:
- Provisioning services: crops, timber, livestock, fish, fuelwood, building materials etc etc etc
- Carbon sequestration, in plants and soils
- Biodiversity
- Water Regulation & supply
- Disaster mitigation: floods, droughts, storms
- Cultural and aesthetic values

# Comparable Approaches that we can Integrate and Build On

- The Stern Report
- TEEB: the economics of ecosystems and biodiversity
- Valuation studies on individual ecosystems
- Studies of local livelihoods and the management of common property resources
- Anthropological studies
- Studies on PES, REDD, etc



# Developing a Methodology: The Approach

- Assess the *total values* of land resources through the appraisal of the Ecosystems Services they generate
- Value the contribution of these resources to the livelihoods of communities and national economies
- Develop scenarios that:
  - Demonstrate the costs of inaction and identify the drivers of land degradation
  - Assess the costs and benefits of reducing unsustainable land management practices
  - Provide arguments for maintaining and improving existing land resource values

# Six Stages in Assessment

Inception: agreeing the area, scope, policy links & partners



Assessment of land cover & ecosystem characteristics



Analysis of Ecosystems Services Flows & Values



Assessment of contribution to local livelihoods and national economic growth & development



Identification of land degradation patterns and pressures



Assessment of SLM options to reduce pressures and increase ecosystems services flows

# Thanks for Listening

