

Integrated Landscape Management (ILM) for Implementing the SDGs



Learning Objective

Participants have a better understanding on integrated landscapes management

Key words

- Landscape approaches
- Integrated landscape management (ILM)
- ILM and the SDGs
- Sustainable landscapes

A Landscape- what is it exactly?



Photo: Internatioanl Institute of Tropical Agriculture (IITA), 2007



- **A socio-ecological system**
- **Consists of natural and/or human-modified ecosystems**
- **Influenced** by distinct ecological, historical, political, economic and cultural processes and activities
- **Spatial arrangements and governance of a landscape contribute to its unique character**

Landscape Approaches

Seek to provide tools and concepts for **allocating and managing land** to achieve **social, economic, and environmental** objectives in areas where **agriculture, mining, and other productive land uses** compete with environmental and biodiversity goals



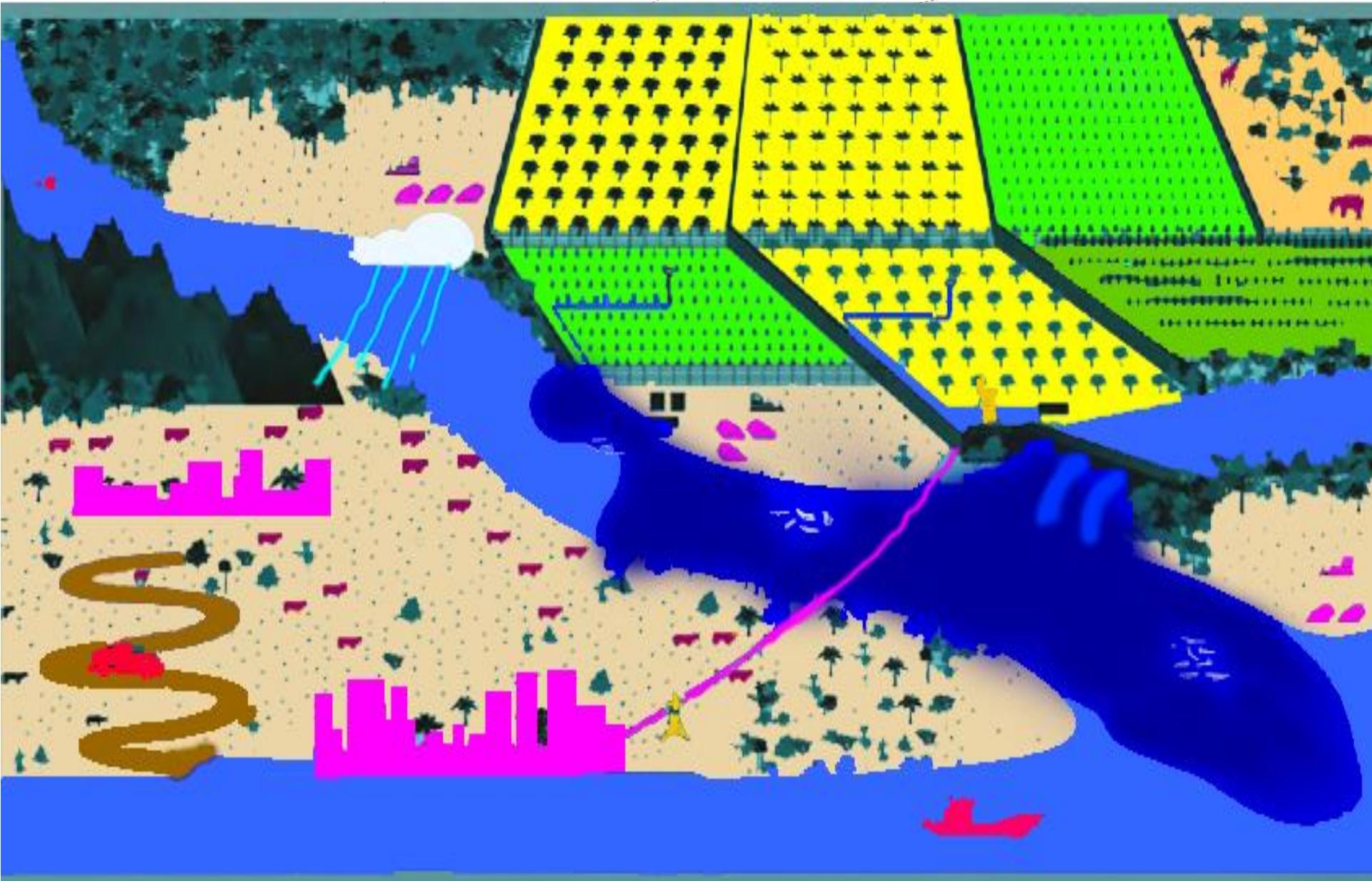
Ten Principles for a Landscape Approach

- Principle 1: **Continual learning and adaptive management**
- Principle 2: **Common concern entry point**
- Principle 3: **Multiple scales**
- Principle 4: **Multi functionality**
- Principle 5: **Multiple stakeholders**
- Principle 6: **Negotiated and transparent change logic**
- Principle 7: **Clarification of rights and responsibilities**
- Principle 8: **Participatory and user-friendly monitoring**
- Principle 9: **Resilience**
- Principle 10: **Strengthened stakeholder capacity**

Adopting a **siloes** approach to natural resource management can have negative impacts on other land uses, due to the **interconnectedness of issues**

Describe what you see in the next two figures representing an unsustainable and a sustainable landscape







An Unsustainable Landscape

- **Intensive land use** (e.g. heavy use of chemicals in agriculture) near the river's edge leads to polluted and sediment-laden runoff water entering water bodies, harming the humans and animals that rely on these water sources



Runoff of soil and fertilizer during a rain storm

Effect of fertilizer runoff downwards



An Unsustainable Landscape

• **The uncontrolled logging of primary forests** for timber or agricultural expansion threatens the livelihoods of people who depend on the forest for their survival. It also causes heavy erosion that can lead to landslides and flooding



A logging site inside a forest in Boulikhamsai, Laos. WWF report says. PHOTO: AGENCE FRANCE-PRESSE

An Unsustainable Landscape

- **Deforestation** contributes to loss of biodiversity by destroying the habitat of a range of species; it accelerates climate change by releasing CO₂ stored in trees and healthy soils; and reduces the capacity of the soil to retain water. Forests are invaluable to humanity in that they provide economic goods (such as food, timber and fuel wood), and ecosystem services at local, regional and global scales



An Indonesian forest that has been devastated by logging. Photograph: Rainforest Alliance Network

An Unsustainable Landscape

- **Siltation, pollution, acidification and destruction of riparian vegetation** lead to a loss of healthy habitat for fish to spawn and grow. This leads to collapsing riverine and marine fisheries upon which the food security of millions depend



rogramme:

So

An Unsustainable Landscape also means

- **Deforestation, forest degradation, and poor agricultural practices** cause erosion into waterways that lead to costly siltation behind hydroelectric dams. Siltation reduces the service life and efficiency of hydropower facilities, hurting growth and increasing reliance on fossil fuels
- **Poorly managed or overgrazed rangelands** lead to soil erosion, increased greenhouse gas emissions from grasslands, and decreased livestock yields, harming human livelihoods, grassland biodiversity, and the climate
- **Large barriers to wildlife movement through the landscape**, both ecological (e.g. chemical-intensive monocultures) and physical (e.g. fences), lead to declining biodiversity and loss of ecosystem services for agriculture, such as pollination and pest control
- **Land degradation, lack of electrification and other services, and insecure tenure** contribute to tenuous rural livelihoods, forcing people to move to the city to find jobs. Rapid and unplanned urbanisation leads to negative social, health and environmental consequences for all city dwellers



**Think on
Interconnectedness
of issues (from the
mountain to the reef)**



Considerations when defining a landscape

- **A landscape should be defined by stakeholders** at a scale that is small enough to maintain a degree of manageability, but large enough to be able to deliver multiple functions to stakeholders with different interests
- **Its boundaries are set by the stakeholders involved in landscape management**, and may correspond to, or be a combination of, natural boundaries, distinct land features, socially defined areas such as indigenous territories, and/or jurisdictional and administrative boundaries
- The boundaries of a landscape can cross several countries

Integrated Landscape Management (ILM) is

- **A way of managing the landscape** that involves collaboration among multiple stakeholders, **with the purpose of achieving sustainable landscapes**
- The governance structure, size and scope, and number and type of stakeholders involved (e.g. private sector, civil society, government) can vary
- The level of cooperation also varies, from information sharing and consultation, to more formal models with shared decision-making and joint implementation

• Source: Denier, L., Scherr, S., Shames, S., Chatterton, P., Hovani, L., Stam, N. 2015. *The Little Sustainable Landscapes Book*, Global Canopy Programme: Oxford

Five Elements of Integrated Landscape Management

- 1. Shared or agreed management objectives that encompass multiple benefits (the full range of goods and services needed) from the landscape
- 2. Field, farm and forest practices are designed to contribute to multiple objectives, including human well-being, food and fiber production, climate change mitigation, and conservation of biodiversity and ecosystem services
- 3. Ecological, social, and economic interactions among different parts of the landscape are managed to realize positive synergies among interests and actors or to mitigate negative trade-offs
- 4. Collaborative, community-engaged processes for dialogue, planning, negotiating and monitoring decisions are in place
- 5. Markets and public policies are shaped to achieve the diverse set of landscape objectives and institutional requirements

• Source: Ecoagriculture Policy Focus • October 2013

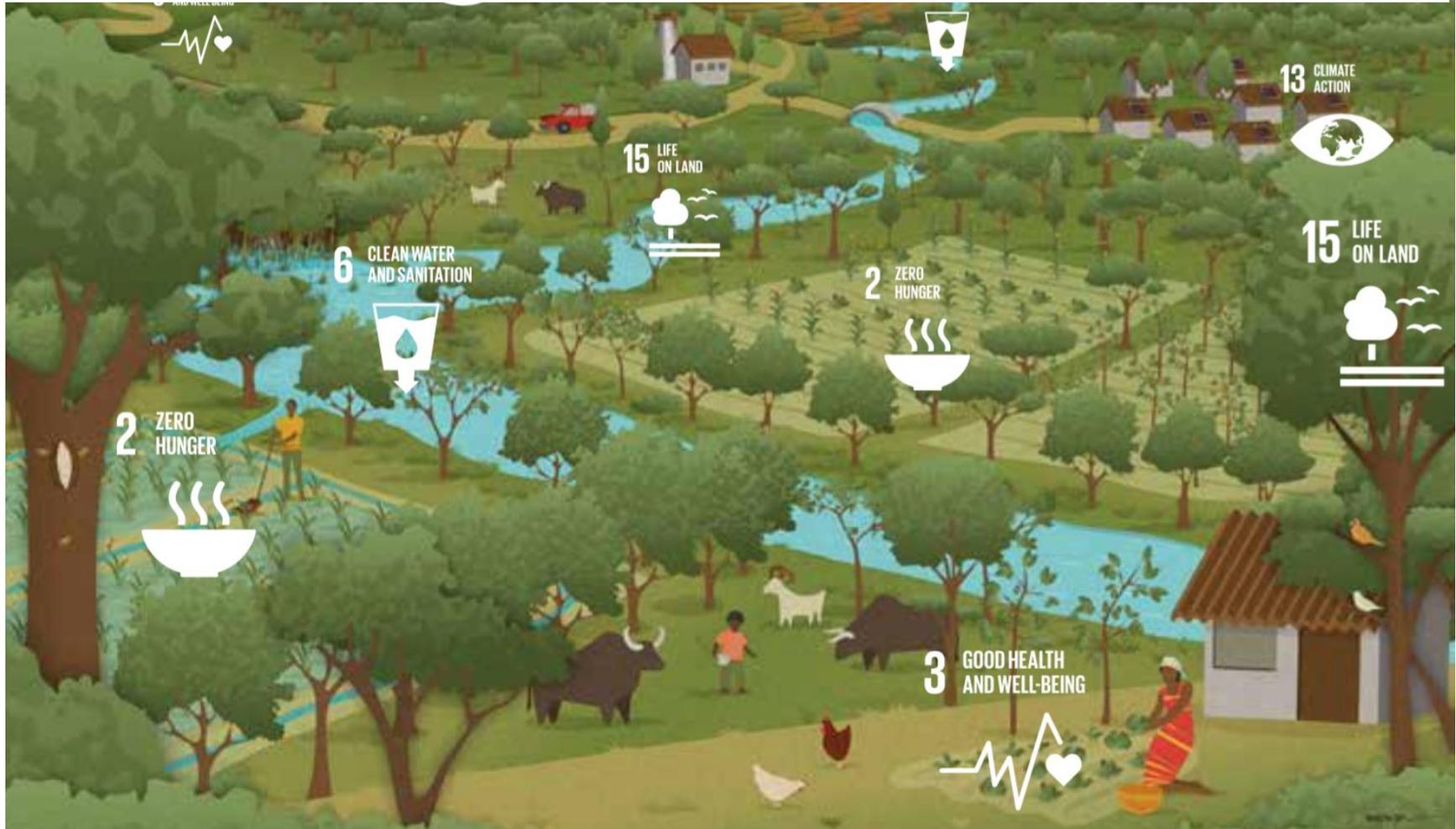
Advantages of ILM for SDGs Implementataion

- Generate solutions that achieve multiple objectives at once
- Improve inter-sectoral coordination and cost-efficiency at multiple levels
- Empower communities through multistakeholder processes
- Enhance transboundary and regional cooperation
- Contribute to national and regional strategies for adressing climate change

The Sustainable Development Goals



Integrated Landscape Management and the SDGs



Source:
Landscape Partnerships for Sustainable Development: Achieving the SDGs through Integrated Landscape Management

Definition for a sustainable landscape

Is a landscape that supports the **United Nations Sustainable Development Goals** and can “meet the needs of the present, without compromising the ability of future generations to meet their own needs”

Means: looking beyond the scope of a single sector and stakeholder group and the scale of a land management unit so as to meet the needs of diverse stakeholders and sectors.

→ INTEGRATED LANDSCAPE MANAGEMENT

Integrated landscape management (ILM) is an increasingly popular approach to addressing development, climate change, food security and a host of other global issues

Towards a Sustainable Landscape

- **Agroforestry systems** like shade coffee, cocoa and tea, and multi-story annual-perennial systems, preserve both agricultural diversity and biodiversity, while improving the food security, resilience, and livelihoods of farmers and their neighbours in cities and downstream.
- **Appropriate livestock density, rotational grazing, and stock diversity** protect rangelands from degradation; increase the production and value of pastoral products from dairy and wool to meat and hides; and increase carbon storage in the soil
- **Efficient and fish-friendly hydropower production**, protected from upstream erosion and pollution, renewably powers cities and rural communities and can regulate flooding

Towards a Sustainable Landscape

- The **sustainable management of forests** preserves biodiversity and secures the long-term wellbeing of people who rely on timber and non-timber forest products for income and cultural traditions. Trees also help stabilise microclimates and reduce CO₂ emissions, and can therefore help people mitigate and adapt to climate change
- **Holistically managed landscapes** protect water resources that fish and other aquatic species rely on. They also protect the livelihoods of people who rely on fish for food security and income
- **Biodiversity-friendly products** from the landscape are exported internationally (e.g. coffee beans), and transported to local or regional markets (e.g. local fruit) leading to economic growth, rural opportunity, and food security
- **A riparian buffer zone** helps prevent soil erosion and siltation of the watercourse, and protects important fish habitat, improving fishery production. It also provides corridors for wild animals to move between non-agricultural areas, potentially reducing human-wildlife conflict

Case study from The Philippines

Sloping Agricultural Land Technology (SALT)

A sustainable farming options for the uplands



*“Treat the earth well.
It was not given to you
by your parents. It was
lent to you by your
children”*

Kenyan proverb



Mindanao Baptist Rural Life Center Foundation, Inc.
Kinuskusan, Bansalan, Davao Del Sur, Philippines

<http://www2.mozcom.com/~mbrlc>



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