



## **Landscape approaches in practice to meet future food demand**

### **Introduction**

Bjorn Lundgren

# Professionals dealing with “landscapes”

*physical geographers* - studying geomorphology of landscapes;

*human geographers* – studying man-made landscapes;

*landscape architects* - working with aesthetic and utility values in rural and urban landscapes;

the focus of these professions *is not* to analyse and advise on how to optimise and harmonise production roles of various forms of land use in different “landscapes”;

# Common man's perception A historic landscape and a coastal landscape



# Approaches 1965-2000

- watershed/catchment/River Basin development,
- integrated land use planning,
- land husbandry,
- ecosystems and farming systems approaches,
- participatory rural development, etc.

and other more or less successful approaches to multi- or inter-disciplinary analysis and development of better land and resource use.

Normally had their origin *within* different disciplines/sectors where the realisation had dawned that “outside” sectors and factors influenced and set limits for developments within your own sector.

# Sense of urgency – background to “landscape approaches”

- population increase: need for increased **food, fibre** and **energy** supply,
- land and water scarcity to accommodate these needs,
- climate change and its influence on production, and,
- the continued destruction of environment, natural resources and biodiversity.

*“By 2050 the world’s food systems need to feed 9 billion+ people which necessitate an increase of food production of about 70%.”*

*“Climate change will have an increasing, and often negative, influence on land-based production systems.”*

*“Degradation and loss of productivity affected 24% of the global land area and more than 1.5 billion people from 1983 to 2003.”*

*“Agriculture, commercial as well as small-scale, subsistence forms, accounts for 90% of deforestation”*

# Food security – the primary concern

In poor countries, increased *food demand*, or in a wider sense *food security*, is the main concern;

Against this background *landscape approaches* have evolved, mostly initiated by international conservation NGOs and forest research/policy organisations.

These institutions seek tools to justify and highlight the roles of conservation, trees, forests, bio-diversity, ecosystem services and climate-smart land use, as components in addressing needs not only for increased food production, but also increased income, environmental stability, conservation of biodiversity, wood production, etc.



Today an explosion of interest in “landscape approaches” - exponential growth in number of publications and applications culminating in the recent ***Global Landscape Forum*** in Lima.

Google search on “**landscape approaches**” yielded ***157 000 000 hits!!***

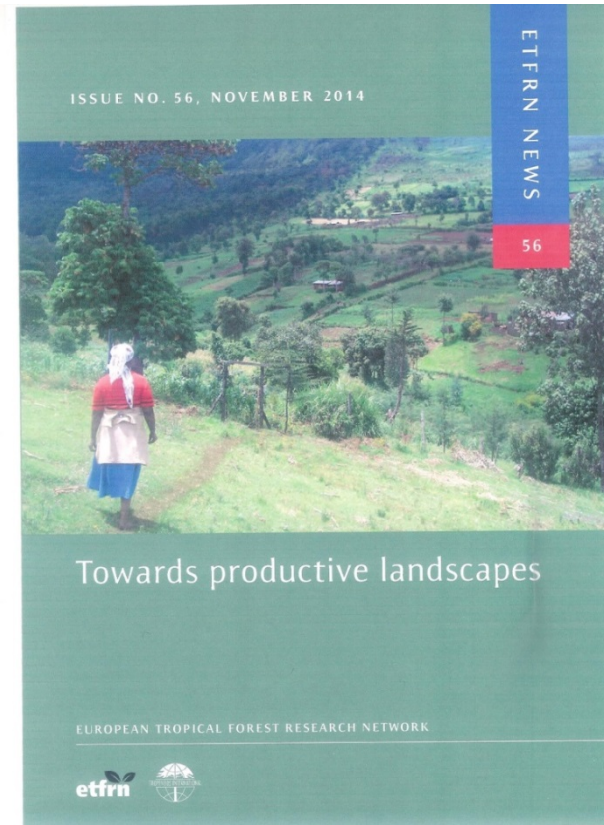


The vision of a landscape approach is to address the complex and interconnected challenges we face in the 21st century. This vision is based on the recognition that we are living in a world of increasing complexity and interconnectedness. A landscape approach is a holistic and integrated way of thinking and acting that recognizes the interconnectedness of all things and the need for a systems-based approach to address the challenges of the 21st century. A landscape approach is a systems-based approach that recognizes the interconnectedness of all things and the need for a systems-based approach to address the challenges of the 21st century. A landscape approach is a systems-based approach that recognizes the interconnectedness of all things and the need for a systems-based approach to address the challenges of the 21st century.

#### Key messages

1. Landscape approaches are essential for sustainable development and the achievement of the Sustainable Development Goals.
2. Landscape approaches are a systems-based approach that recognizes the interconnectedness of all things and the need for a systems-based approach to address the challenges of the 21st century.
3. Landscape approaches are a holistic and integrated way of thinking and acting that recognizes the interconnectedness of all things and the need for a systems-based approach to address the challenges of the 21st century.
4. Landscape approaches are a systems-based approach that recognizes the interconnectedness of all things and the need for a systems-based approach to address the challenges of the 21st century.
5. Landscape approaches are a systems-based approach that recognizes the interconnectedness of all things and the need for a systems-based approach to address the challenges of the 21st century.

***“Ten principles for a landscape approach to reconciling agriculture, conservation and other competing land uses”  
(Jeffrey Sayer et al., 2013; PNAS vol. 110 no. 21)***





# ”Landscape” defined

*“We define a **landscape** as an area delineated by an actor for a specific set of objectives.”*

*The European Landscape Convention defines a **landscape** as “an area perceived by people, whose character is the result of the actions and interaction of nature and/or human factors”.*

*“**Multifunctional landscapes** – our terrestrial resource base where people interact on forestry, agriculture, fisheries, food and energy systems, water management, conservation, value chains and infrastructure”.*

*ETFRN define **productive landscapes** as “being capable of providing not just agricultural or forestry products, but a wide range of products and (ecosystem) services and fulfilling the social, economic and environmental requirements and aspirations of present and future generations at the local, national and global level.”*

# **“Landscape approaches” defined**

*“A **Landscape Approach** is broadly defined as a framework to integrate policy and practice for multiple land uses, within a given area, to ensure equitable and sustainable use of land while strengthening measures to mitigate and adapt to climate change.”*

*“A **Landscape Approach** entails viewing and managing multiple land uses in an integrated manner, considering both the natural environment and the human systems that depend on it”.*

*“**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”.*

# However, we are not there yet!

*“Our review of the literature failed to identify a universal definition for a landscape approach.”*

*“A universal definition for a ‘landscape approach’ remains elusive.”*

*“Researchers and practitioners are still questioning what the landscape approach actually is, while its application and practicality are also questioned as a result of the complexity of the associated concepts.”*

*“These terms share the virtue of being constructively ambiguous— meaning that people can agree on these approaches in principle while disagreeing on many key details that remain subject to negotiation.”*

*“Right now there is a good deal of confusion surrounding what a landscape approach represents and why we need it.”*

*“We are still swimming in a sea of terminology associated with the landscape approach”.*



**But, still...**

***as professionals, we instinctively know what the essence of the approach is and what its merits are, or are supposed to be”, viz.:***

**“To find, through a multi-stakeholder and interdisciplinary mode of working, a dynamic balance between competing land and resource uses that in a sustainable way can achieve economic, nutritional and environmental needs and aspirations of people within the landscape, as well as contributing to satisfying needs and demands of people and communities outside the landscape through products’ value chains, ecosystem services, biodiversity conservation, etc.).”**



# Remaining weaknesses and questions

- Translating and integrating “global needs” (e.g. climate change, biodiversity loss, deforestation, etc.) with “local needs” (increased income, food security and job opportunities); and, related to this:
- Translating interdisciplinary landscape analysis led by international research institutes and NGOs to action and implementation at local and “real” decision-making and implementation levels;
- How to institutionalise interdisciplinary and multi-stakeholder landscape approaches into current local and national institutional frameworks;
- How to deal with non-local actors living “outside” the landscape in question, e.g. urban consumers of products and services from managing various components in a landscape (“supply chains”); and,
- How to deal with landscapes where it makes perfect economic sense to inhabitants to maximise just one use of the land, either because agro-ecological, market, and/or logistic conditions strongly favour one particular use.



## **And, finally:**

**We hope that this seminar will not only contribute some clarity to definitions and suggestions on how to deal with the remaining weaknesses in applying landscape approaches, but more importantly identify priorities on how we proceed from the current level of understanding in applying such approaches.**