



LANDSCAPES FOR LIFE:

Integrated management of landscapes and
seascapes for sustainable food and agriculture

Why work across landscapes?

Natural systems that provide the foundation for sustainable agricultural are being degraded at unprecedented rates. Yet by 2050, food production and overall food-system efficiency must increase by almost 50 percent to adequately serve the needs of 10 billion people. The future integrity of the global food supply, the direct livelihoods of several billion people, and the stability of global ecosystems will depend on our ability now to strengthen the resilience of production landscapes and seascapes, restore degraded lands and forests, conserve soils, stabilize watersheds, and restore water quality and ocean health.

Shifting the course of development onto a sustainable pathway requires new thinking in terms of how we tackle complex problems that transcend sectors and boundaries. Landscape approaches that put people at the center, while restoring and protecting natural resources, are among the most effective ways to address these challenges.

NATURAL SYSTEM

LANDSCAPE APPROACH

HUMAN SYSTEM

Environmental services

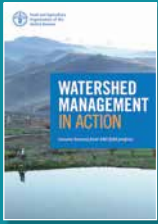
Natural resources

Economic and social services

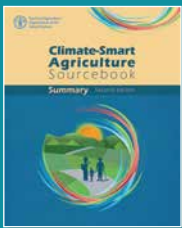
Agricultural products

Integrated management across landscapes
and seascapes involves production systems and natural
resources in a physical area that is large enough to produce
vital ecosystem services, yet small enough to be managed by
the people who use the resources and produce those services.

FOR MORE INFORMATION:



Watershed management in action: Lessons learned from FAO field projects (FAO, 2017)



Climate-Smart Agriculture Sourcebook (FAO, 2017)



Sustainable Land Management (SLM) in practice in the Kagera Basin (FAO, 2017)

Why do we need integrated landscape management?

Applying integrated landscape management allows us to develop:

- greater awareness of the multiple benefits of resilient food systems for both livelihoods and nature, and advance restoration outcomes;
- a stronger knowledge base, particularly among policy- and decision-makers, concerning tradeoffs that may be required, as well win-win practices within these integrated approaches which can support greater alignment of field-level practices;
- more effective coordination of the many stakeholders and sectors, some across boundaries, typically involved in landscape initiatives in order to maintain their commitment to common goals at all levels;
- better evidence related to the efficiency and cost-effectiveness of cross-sectoral investments;
- sustainable investments that support system change, ensuring the longer timeframes necessary to achieve joint results, including long-term commitments from stakeholders as well as targeted investment strategies.

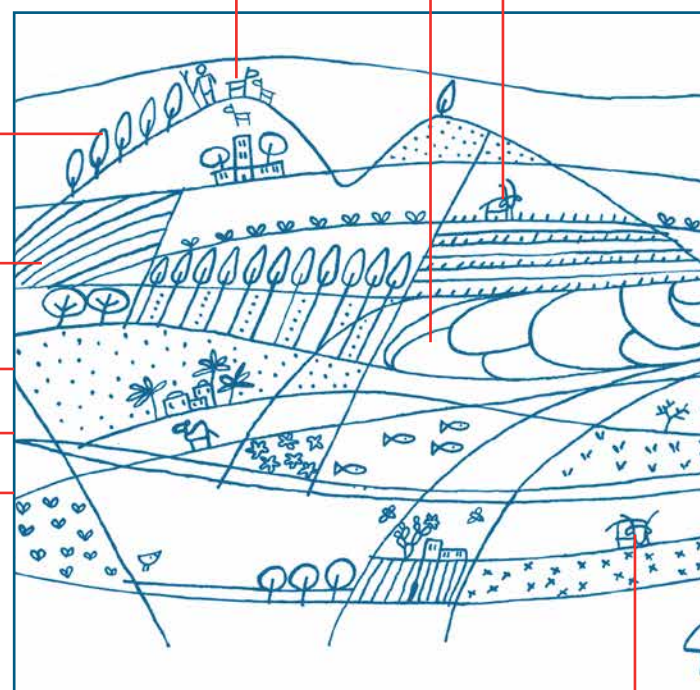
Developing the approach

FAO has developed a rich repository of well-established practices and tools supporting integrated approaches across landscapes and seascapes. Many are tailored to specific needs, but are deployed within comprehensive approaches that often address complex development challenges. Fundamentally, however, they are consistently people-centered, addressing the needs of farmers and other resource land managers who are at the core of sustainable food and agricultural systems, while focused on supporting these actions within a broader governance framework.

Knowledge resources — including guidelines, case studies, web portals, knowledge hubs, and toolboxes — are available to support the implementation of these integrated approaches. We are also developing a knowledge platform to better curate, host and facilitate access to these resources and serve a rapidly growing community of practice, both within and outside of FAO.

Integrated approaches applied by FAO

- Integrated watershed management
- Agrosilvopastoral systems
- Forest and landscape restoration
- Sustainable land management
- Territorial development
- Ecosystem approach
- Source to Sea
- Climate smart agriculture
- Coastal area management



What can FAO offer?

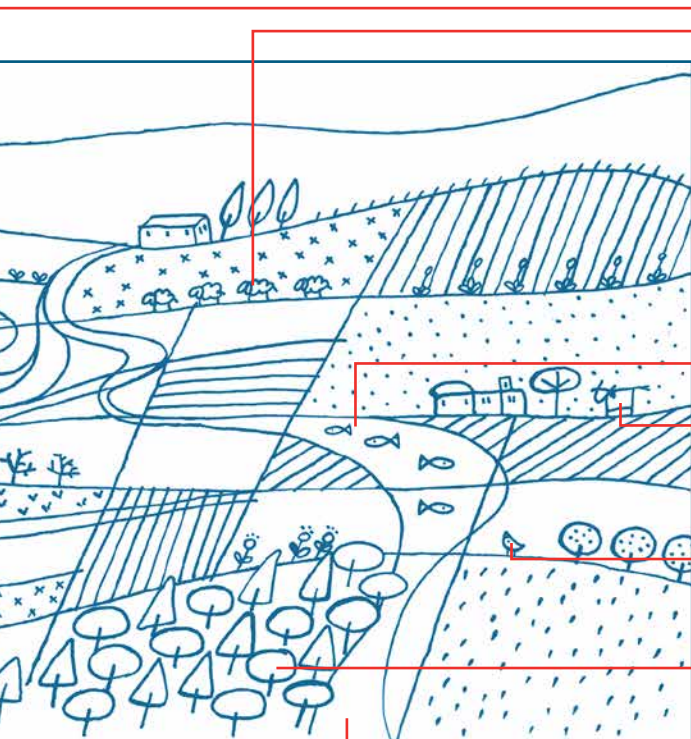
We support country partners deploying these approaches in an increasingly integrated way, by:

- participatory assessments and monitoring for land-resource planning and decision-making;
- identifying successful agro-ecosystem practices by demonstrating multiple benefits;
- prioritizing practices for scaling-up and guiding effective and responsive interventions;
- developing collaborative planning and governance processes to improve production and livelihoods, and enhance ecosystem services;
- informing investments by defining priority areas of intervention, and ecological and socio-economic barriers and opportunities;
- promoting intersectoral cooperation and planning as well as national and transboundary policy-making;
- identifying financing opportunities and fostering public-private partnerships;
- supporting knowledge/innovation systems, with locally adapted norms and regulations; and
- encouraging conflict resolution and equitable access to resources.

Next steps

FAO is leading the Global Environment Facility (GEF) 7 Impact Programme on Dryland Sustainable Landscapes. Through this process, FAO will deploy its tools and engage with key partners to support the integrated management and restoration of dryland forests and rangelands, across sectors, and through an integrated landscape approach. This will include:

- clarifying land and resource tenure, and supporting comprehensive planning at scale;
- improving coordination and collaboration across sectors, and improving governance systems;
- strengthening important agricultural value chains;
- leveraging investments from the private sector and supporting entrepreneurs by catalysing public/grant funds;
- implementing a comprehensive monitoring and knowledge-management programme, based on innovative spatial assessment tools combined with local knowledge.



FAO knowledge platforms:

Knowledge Tank for agriculture sectors' adaptation to climate change

Agroecology Knowledge Hub

Ecosystem Approach to Fisheries Toolbox

Pastoralists Knowledge Hub

Land Resources Planning Toolbox

Technologies and practices for small agricultural producers TECA

Sustainable Forest Management toolbox

Cross-sectoral taskforce for Forest and Landscape Restoration in Rwanda

In Rwanda, more than one million hectares of land have been identified as suitable for agroforestry. FAO has played an instrumental role in setting up a multi-stakeholder taskforce on agriculture and natural resources which focuses primarily on upscaling approaches to improve agricultural productivity while restoring degraded landscapes. This is to ensure delivery of ecosystem services throughout the country, with a particular focus on agroforestry. The programme also aims at establishing connections across agriculture and natural resources institutions at national and district levels and on the ground. The goal is to catalyse coordination across key stakeholders at the landscape level from both sectors, strengthen their capacities and help them to leverage financing to support wide-scale restoration efforts locally and nationally.

Incentives for Ecosystem Services: A financing mechanism for landscape management

Combining best practices at landscape level can help to restore and protect ecosystem services and generate economies of scale. As many of these sustainable practices have benefits beyond the farm, these linkages become clearer in a landscape approach and can capture funding from other sectors to support sustainable agricultural choices. There are a variety of programmes offering incentives. These range from policy-driven investments to fulfil mandatory regulations, such as taxes and charges; to private strategies for saving production costs (water-quality protection programmes); to opening new markets (certificates/standards); to voluntary investments in social and livelihood benefits (corporate social responsibility and NGO investments in social development). While these investments are usually applied in isolation, under a landscape approach they could all support the sustainable management of agro-ecosystems by increasing policy coherence and aligning investments.

Integrated Management of Lagoon Activities (IMOLA) in Thua Thien Hue (Viet Nam)

In Viet Nam's Thua Thien Hue Lagoon, general environmental degradation has been widespread since the 1990s, as a consequence of rapid and unregulated development of aquaculture. Such practices resulted in a depletion of the fish stock, a decrease in aquatic biodiversity and productivity, loss of income opportunities along with a shortage of protein supply and rising food insecurity. In the early 2000s, the FAO Integrated Management of Lagoon Activities (IMOLA) project implemented field studies and spatial analyses, and carried out a broad stakeholder consultation with effected communities. As a result, conservation areas were established and assigned to locally created fisherfolk associations for management, control and monitoring. Farmers received advanced aquaculture training and pilot models — including integrated fish and fish/shrimp polyculture, clam farming, frog and eel culture — were implemented as part of the training. The dissemination of improved fisheries, afforestation and other landscape management practices, along with the full involvement of fisherfolk and local institutions, promoted the recovery of aquatic ecosystems and increased production.

The afforestation of Ru Cha wetland forest pioneered by the IMOLA project is now a protected area and a tourist attraction, with pathways, a worship heritage station and an observatory. Fisheries associations are continuing co-management of the lagoon, and the area-based management system introduced by the IMOLA project is still followed as the conceptual basis for fisheries resource management; and still operates effectively.

More information

Food and Agriculture Organization of the United Nations
www.fao.org/land-water/overview/integrated-landscape-management

Credits: text and case studies adapted from FAO publication on
Landscapes for life <http://www.fao.org/3/i8324en/i8324en.pdf>

Contact us

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