GUIDELINES FOR FOREST LANDSCAPE RESTORATION IN THE TROPICS

A healthy forest landscape in the Alto Vale do Itajaí region, Brazil. *Photo: © Wigold Schaffer*

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ITTO

International Tropical Timber Organization

Forest landscape restoration is an inclusive, whole-of-landscape approach that can help reverse land degradation, increase carbon storage, conserve biodiversity and create sustainable livelihoods for local communities

Inspecting a 16-year-old plantation in a forest concession, Indonesia. *Photo: © Sari Bumi Kusuma*

Enormous changes have occurred in tropical forest landscapes in recent decades, and large areas—nearly a billion hectares—have become degraded and require urgent restoration. Considerable knowledge and experience exists on how to restore degraded forest landscapes, and there are many inspiring examples of success in the tropics.

Forest landscape restoration (FLR) is an inclusive, whole-of-landscape approach that can help reverse land degradation, increase carbon storage, conserve biodiversity and create sustainable livelihoods for local communities.

ITTO published guidelines on the restoration, management and rehabilitation of degraded and secondary tropical forests in 2002—the first international effort to provide overall guidance on tropical forest restoration. But FLR is a fast-developing sphere of science and practice, and many other guidelines and tools relevant to FLR have since been released. Field experiences and research have yielded new information and approaches.

In light of such developments, ITTO—in close collaboration with the Collaborative Partnership on Forests, the Asian Forest Cooperation Organization and many other partners working in tropical forests[1]—has now published a new set of guidelines, *Guidelines for Forest Landscape Restoration in the Tropics*, with the aim of helping policymakers, practitioners, community-based organizations and others to put FLR into practice in the field. This policy brief outlines the six FLR principles and their associated guiding elements, summarizes some of the lessons learned, and proposes immediate actions for assisting uptake of the guidelines.

Collecting biodata from farmers for a benefit-sharing agreement on a community plantation, Offinso district, Ghana. *Photo: © Emmanuel Antwi Bawuah*

FLR is defined in the guidelines as an ongoing process of regaining ecological functionality and enhancing human wellbeing across degraded and deforested forest landscapes. The process has three key elements: 1) participation; 2) adaptive management; and 3) a consistent monitoring and learning framework.

Overview

Guidelines for Forest Landscape Restoration in the Tropics is structured around six **principles** of FLR developed by the Global Partnership on Forest and Landscape Restoration. The principles are enriched by 32 **guiding elements** and, for each of these, by **recommended actions** to put FLR into effect in the field. The guidelines also present **case studies** in the tropics—showing how FLR can be achieved and the challenges and opportunities it presents, especially for local people.

The guidelines provide a basis for policy decisions and a technical reference that can be used or adapted to the needs and capacities of users. They present the rationale for action and indicate the roles and responsibilities of stakeholders.[2]

The guidelines are voluntary. They may be adapted as appropriate according to national and local circumstances.

Target audience
The guidelines are intended for: • National and subnational forest and natural-resource policymakers and legislators in tropical countries • Restoration practitioners • Community-based organizations • Private-sector organizations • Civil-society organizations • Research and education institutions • International organizations, governments outside the tropics, and donor agencies.

[1] The guidelines are a joint effort of ITTO, members of the Collaborative Partnership on Forests, particularly the Center for International Forestry Research, the Food and Agriculture Organization of the United Nations, the Global Environment Facility, the International Union for Conservation of Nature, the International Union of Forest Research Organizations and the United Nations Environment Programme, and other major collaborating institutions, especially the Asian Forest Cooperation Organization, RECOFTC, WeForest and the World Resources Institute.
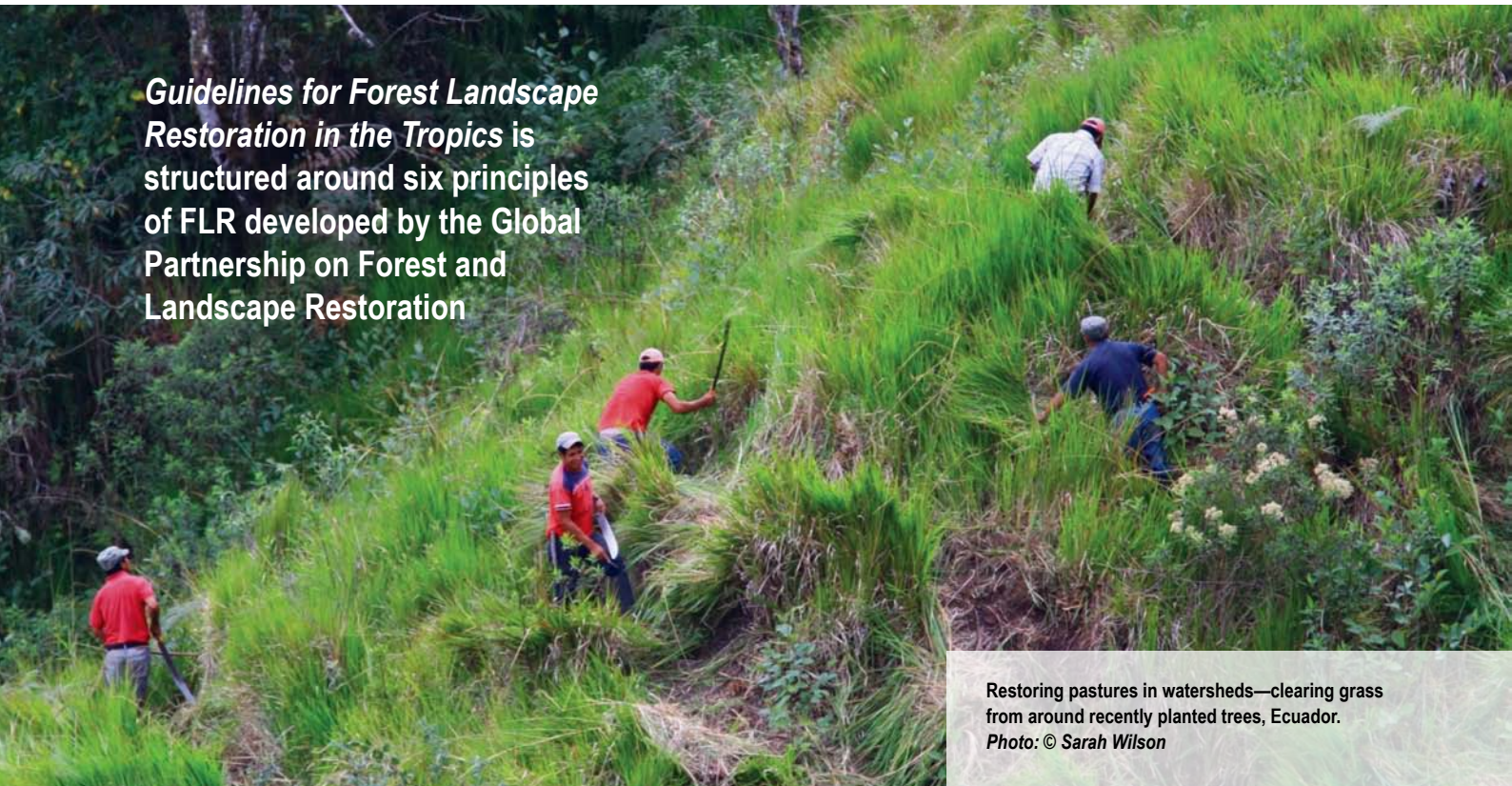
[2] Note that the guiding elements are not exhaustive given the complexity of forest landscapes and the huge diversity of site-specific contexts.

Restoring pastures in watersheds—clearing grass from around recently planted trees, Ecuador.
Photo: © Sarah Wilson

Principles and guiding elements

The principles and guiding elements shown in Table 1 (and described in detail in the guidelines) have been formulated to assist stakeholders in the development and monitoring of national policies aimed at creating enabling conditions for successful FLR implementation and outcomes. The principles provide a conceptual basis, and the guiding elements further describe each principle and the conditions needed for successful FLR. Together, the principles and guiding elements form a continuum defining FLR as a concept (Figure 1). The principles are further described below.

Principle 1: Focus on landscapes

FLR takes place within and across entire landscapes. It focuses on restoring landscapes, not individual sites. FLR needs to be planned and organized at the landscape scale and not in forested areas alone. It should consider the variety of existing interacting land uses and tenure and governance arrangements in the landscape.

Principle 2: Engage stakeholders and support participatory governance

FLR should actively engage stakeholders—including women, young people and vulnerable groups—in planning and decision-making regarding land use, restoration goals and strategies, implementation methods, benefit sharing, and monitoring, assessment and review.

Principle 3: Restore multiple functions for multiple benefits

FLR should aim to restore multiple economic, social and environmental functions in a landscape and to generate a wide range of ecosystem goods and services that equitably benefit stakeholders.

Principle 4: Maintain and enhance natural forest ecosystems within landscapes

FLR should restore dynamic forest processes related to species composition, structure, productivity, biodiversity, pollination and floral and faunal genetic diversity. FLR interventions, therefore, should aim to restore the productivity, ecosystem functions and carbon stocks of degraded tropical forests.

Principle 5: Tailor to the local context using a variety of approaches

This principle helps ensure that the planning and implementation of FLR respond to the needs of local people and ecosystems. The best way to ensure that FLR is well adapted to local conditions is for local stakeholders to be fully involved in its development, implementation, monitoring and assessment.

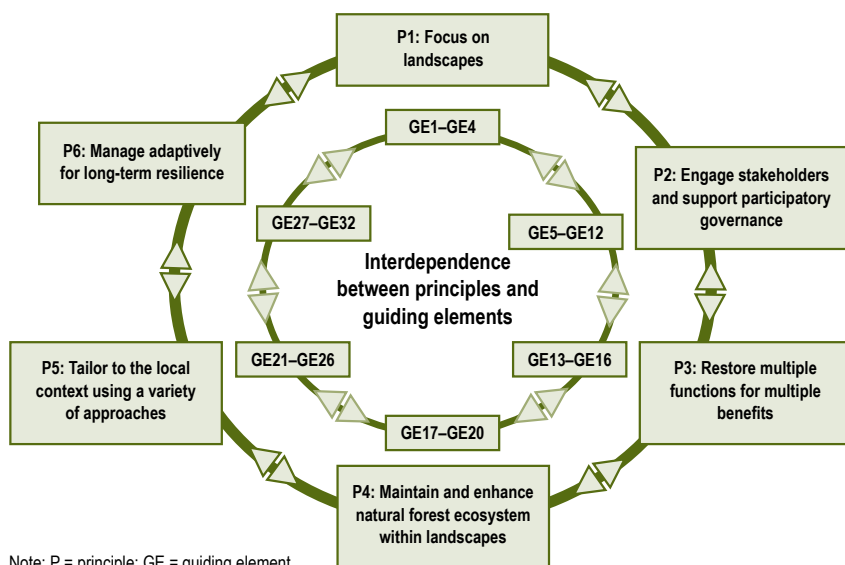### Principle 6: Manage adaptively for long-term resilience

FLR is a long-term undertaking. FLR must be tailored to the local conditions prevailing at the time of commencement but be capable of adaptation to changing economic, social and environmental circumstances.

Table 1: Overview of the six principles and 32 guiding elements of FLR

P1	**Focus on landscapes**
GE1	Undertake inclusive, gender-responsive landscape-level assessment and land-use planning
GE2	Gain recognition that FLR must transcend sector policies
GE3	Conduct FLR at an appropriate scale
GE4	Address tenure and access rights
P2	**Engage stakeholders and support participatory governance**
GE5	Build adequate governance capacity for decentralized FLR
GE6	Obtain strong stakeholder engagement
GE7	Conduct joint stakeholder analysis of the drivers of degradation
GE8	Strive for social equity and benefit sharing
GE9	Conduct participatory FLR planning, decision-making and monitoring
GE10	Build stakeholder capacity for sharing responsibility for FLR
GE11	Address long-term financing for FLR initiatives
GE12	Establish a favourable investment environment for FLR
P3	**Restore multiple functions for multiple benefits**
GE13	Generate multiple functions and benefits
GE14	Conserve biodiversity and restore ecological functions
GE15	Improve livelihoods
GE16	Make full use of locally based knowledge
P4	**Maintain and enhance natural forest ecosystems within landscapes**
GE17	Avoid the conversion of natural forests
GE18	Restore degraded forests and rehabilitate degraded forest land
GE19	Avoid forest fragmentation
GE20	Conserve natural grasslands, savannas and wetlands
P5	**Tailor to the local context using a variety of approaches**
GE21	Assess local context and restrictions
GE22	Allow for future changes in conditions
GE23	Tailor FLR interventions to the local context and generate local benefits
GE24	Achieve the financial and economic viability of FLR investments
GE25	Identify opportunities to increase local incomes
GE26	Develop sustainable supply chains
P6	**Manage adaptively for long-term resilience**
GE27	Take an adaptive management approach
GE28	Continually measure the biophysical dimensions of the landscape
GE29	Periodically assess vulnerability to climate change
GE30	Develop participatory monitoring of FLR
GE31	Encourage open access to, and the sharing of, information and knowledge
GE32	Report on FLR outcomes

Note: P = principle; GE = guiding element.

Figure 1: Principles and guiding elements of FLR—a continuum

P1: Focus on landscapes

P6: Manage adaptively for long-term resilience

P2: Engage stakeholders and support participatory governance

GE1–GE4

GE27–GE32

GE5–GE12

Interdependence between principles and guiding elements

P5: Tailor to the local context using a variety of approaches

GE21–GE26

GE13–GE16

P3: Restore multiple functions for multiple benefits

GE17–GE20

P4: Maintain and enhance natural forest ecosystem within landscapes

Note: P = principle; GE = guiding element.

Implementation

The implementation of FLR can benefit from practical strategies that define, plan, initiate, sustain, scale up and adapt interventions to address changing local needs and environmental conditions, following the logic of project-cycle management. The project-cycle management framework for FLR is not a simple, linear process but, rather, iterative, adaptive and hierarchical, with recurring consultations among stakeholders.

The guidelines present recommended actions for putting FLR into effect in an operational framework comprising the following four phases:

1. **Visioning** (preparation)—short-term timeframe to define the FLR goal, and a long-term timeframe for achieving the vision.

2. **Conceptualization** (planning)—relatively short-term timeframe (e.g. 1 year).

3. **Implementation** (acting)—mid-term timeframe (e.g. 3–10 years).

4. **Sustainability** (sustaining the achievement)—long-term timeframe (at least decades).

Lessons from case studies

The guidelines present 18 case studies of FLR interventions in the tropics that have been implemented in the past or are under implementation now. Some of the many lessons learned from these are as follows:

• Landscape approaches are designed to function at multiple scales, from influencing sustainable land-use decisions by individuals to reforming national and regional land-use planning policies and guidelines.

• To ensure the effective participation of local stakeholders and guarantee fair benefits, communities need to have strong rights and secured tenure based on customary practices.

• Stakeholder engagement, especially among local communities, plays a big role in the success of FLR.

• Strong awareness among local people and communities of the direct and indirect economic and social benefits of FLR is essential for obtaining their commitment and support.

• Institutional conditions that need to be in place to support FLR include the coordination of policies and government programmes to integrate human, technical and financial resources.

• The equitable participation of local people is a precondition for successful FLR.

• A central tenet of a landscape approach is that the end goal is not predefined but determined by stakeholders through a process of visioning and balancing trade-offs, and this requires clear dialogue structure and objectives.

• Establishing an effective monitoring and evaluation system is key for the successful implementation of FLR.

The guidelines present a full set of the lessons learned from the case studies.

Community members of Thbong Domrey, Cambodia, patrol their community forest.
Photo: © RECOFTC

A landscape view of the Intag Valley, Imbabura Province, northwest Ecuador.
Photo: © Sarah Wilson

An event on National Arbour Day 2017 in Nongbua, Sangthong, Lao People's Democratic Republic. Since 2016, the Asian Forest Cooperation Organization has joined with the Lao government in demonstrating village-driven forest management to restore highly fragmented and degraded forest landscapes, drawing inspiration from the forest restoration experience of the Republic of Korea under *Saemaul Undong* (New Village Movement). *Photo: © Asian Forest Cooperation Organization*

The way forward

Restoring forest landscapes and sustainably managing and protecting existing forests against degradation constitutes a cost-effective strategy for reaching the goals of the Paris Agreement on climate change. The Sustainable Development Goals and several other globally agreed policy instruments, including the United Nations Decade on Ecosystem Restoration (2021–2030), recognize FLR as an important tool for achieving the aspirations such instruments embody.

A number of immediate actions can be taken to encourage the use of the guidelines at the national and local levels

The ambition of the guidelines summarized here is to support the goals of stakeholders in the implementation of FLR and to inform decision-makers and practitioners in the development of successful FLR interventions. A number of immediate actions can be taken to encourage the use of the guidelines at the national and local levels, including the following:

- Apply the guidelines as a reference and guiding document in the development of FLR interventions at the national and subnational levels as well as in making finance available for FLR.

- Use the guidelines as a vehicle for increasing capacity in tropical countries to undertake FLR, in combination with other specific guidelines, tools and approaches.

- Identify landscapes where FLR is necessary, feasible and a local priority and make a long-term commitment to its implementation.

- Promote the dissemination and application of the guidelines by local stakeholders and other actors.

- Work to ensure that relevant international conventions and processes promote and use the guidelines to advocate and implement FLR.

- Monitor the impacts of these guidelines on changing practices in forest and landscape use throughout the tropics.

Forest restoration using the framework-species method has transformed the landscape of the upper Mae Sa Valley, Thailand. *Photo: © FORRU-Chiang Mai University*