

# SFM Toolbox

## Home

### What is the SFM Toolbox?

The [SFM Toolbox](#) collates a large number of tools, case studies and other resources, organised in modules. It has been created to provide forest owners, managers and other stakeholders with easy access to those resources for the [implementation of SFM](#).

### [Modules](#)



**A module provides an overview of a thematic area relevant to the implementation of SFM.**

### [Tools](#)



**A tool is a resource that supports and guides the implementation of SFM.**

### [Cases](#)



**A case provides information on a particular instance of SFM application.**

### Contact

[SFM-Toolbox@fao.org](mailto:SFM-Toolbox@fao.org)

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## Background

### ***What is SFM***

**Sustainable forest management (SFM)** can be viewed as the sustainable use and conservation of forests with the aim of maintaining and enhancing multiple forest values through human interventions. People are at the centre of SFM because it aims to contribute to society's diverse needs in perpetuity.

The United Nations describes SFM as:

*"[a] dynamic and evolving concept [that] aims to maintain and enhance the economic, social and environmental values of all types of forests, for the benefit of present and future generations".*

This description makes it clear that SFM will change over time but that its purpose is, at a minimum, to maintain all forest values in perpetuity. SFM is a multidimensional concept because it incorporates the four pillars of sustainability - economic, social, cultural and environmental.

FAO supports SFM implementation worldwide. For further information click [here](#).

## [Quick starts](#)

### **Quick starts**

Quick starts are pre-defined scenarios a forester/professional may need to better know when working on the management of a certain type of forest, with a specific goal (production, protection, restoration, etc.). Each scenario provides a full list of modules to be viewed in order to acquire an exhaustive knowledge of the subject.

Click one of the quick start below to be directed to the list of modules most related with the forest management scenario of your interest.

### [Management of natural production forest](#)



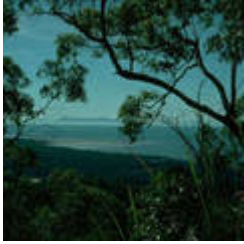
**Natural forests are forests that regenerate naturally, they are composed of all the species that occur naturally in them. Natural-forest silviculture can be defined as the practice of controlling the establishment, growth, composition, health and quality of natural forests to meet diverse needs and values. Silvicultural practice consists of the interventions applied to forests to maintain or enhance their utility for specific purposes. In this specific case the goal of the silvicultural system is the production of wood and other forest products.**

### [Forest and landscape restoration](#)



**The aim of forest and landscape restoration (FLR) is to develop diverse, productive and multifunctional landscapes that are resilient in the face of economic fluctuations and climatic change. FLR shifts the emphasis away from simply maximizing tree cover towards re-establishing multiple ecosystem functions in previously degraded landscapes, striving for a balance between restoring environmental services and improving the productive capacity of land for agriculture, forestry and other land uses.**

### [SFM Implementation and REDD+](#)



**The aim of sustainable forest management (SFM) is to maintain and enhance the multiple values of forests over generations. It is, therefore, fundamentally important for REDD+. REDD+ is the term given to the concept of reducing emissions from deforestation and forest degradation, plus the sustainable management of forests and the conservation and enhancement of forest carbon stocks; it is part of the negotiation process of the United Nations Framework Convention on Climate Change (UNFCCC). This section is dedicated to REDD+ module and related concepts such as reducing deforestation, reducing degradation, etc. to be known more in depth to implements SFM under REDD+ framework.**

## Statistics

### Top ten modules (18 Oct 2021 - 17 Oct 2022)

Our top 10 modules with the highest number of views during the past one year period are listed below:

1. [Agroforestry](#)
2. [Reducing deforestation](#)
3. [Waterhsed management](#)
4. [Silviculture in natural forests](#)
5. [Forest inventory](#)
6. [Wildlife management](#)
7. [Mountain forests](#)
8. [Land use planning](#)
9. [Forest and water](#)
10. [Wood energy](#)

### Top ten countries

The following countries are the most active users of the Toolbox. Users from these 10 countries account for over 84% of the user traffic.

1.  Mexico
2.  Colombia
3.  Peru
4.  India
5.  Argentina
6.  Ecuador
7.  Philippines
8.  United States
9.  Spain
10.  Guatemala

## Modules

### **Modules**

The SFM Toolbox modules are organized along thematic areas relevant to the implementation of SFM. In each module, you will find basic and in-depth information, tools and cases that will help you expand knowledge on a topic of interest and to put SFM into practice.

Select one of the thematic topics below and click to display relevant modules.

### ***Policy, governance and economics***



Development of forest-based enterprises



Forest finance



Forest governance



Forest law enforcement



Forest policy



Forest tenure



Public forestry institutions

***People, forests and trees***



Community-based Forestry



Collaborative Conflict Management



Forestry Responses to Conflict & Disasters



Gender in Forestry



Participatory Approaches and Tools for SFM



Social Protection and Forestry

**Poverty reduction, food security and well-being**



Agroforestry



Dryland forests and agrosilvopastoral systems



Forests, food security and nutrition



Health benefits from forests



Urban and peri-urban forestry

***Biodiversity and ecosystem services***



Forest and water



Forest pests



Mangroves restoration and management



Mountain forests



Protected areas



Wildlife management

***Climate actions, halting deforestation and degradation***



Climate change adaptation and mitigation



REDD+



Reducing deforestation



Reducing forest degradation

***Forest restoration and reforestation***



Forest and landscape restoration



Forest genetic resources



Forest reproductive material



Forest restoration



Management of planted forests



Use of treated wastewater in forestry

***Forest products, trade and markets***



Forest certification



Management of non-wood forest products



Occupational health and safety in forestry



Wood energy



Wood harvesting

***Assessment, planning, management and monitoring***



C&I: a tool for enhancing SFM



Forest inventory



Forest management monitoring



Forest management planning



Land-use planning



Silviculture in natural forests



Vegetation fire management



Watershed management

## Tools

### ***Tools***

A tool is a resource that supports and guides the implementation of SFM. This section includes all the tools available in the SFM Toolbox, which can be in form of publications, e-learning videos, software etc.

You can browse the Tools through keywords in the free search box or you can narrow the search using the filters on the right side of the page.

## Cases

### **Cases**

A case provides information on a particular instance of SFM application. This section includes all the cases available in the SFM Toolbox, they can be in form of publications, videos, audios, websites, etc.

You can browse the Cases through keywords in the free search box or you can narrow the search using the filters on the right side of the page.

**News**

## E-learning

### *E-learning*

This section of the SFM Toolbox provides links to available online courses and e-learning videos that support capacity building, training and awareness raising on topics relevant to sustainable forest management. These courses are also accessible from within the related modules under the E-learning subsection.

The available e-learning materials can also be browsed through the [Tools](#) page by selecting “E-learning” under the Type of Tool filter.

This section is also linked to the recently launched [FAO elearning Academy](#), which has already developed a number of courses related to forestry. The platform offers free access to content on a variety of topics of global interest, which is available in a range of formats, including e-learning courses for self-paced learning, blended learning programmes, massive open online courses (MOOCs), technical webinars, online tutored courses, mobile learning, face to face training workshops, as well as University Master’s Degree programmes and post graduate degrees.

## [FAO e-learning academy](#)

The FAO elearning Academy is a platform that provides learning opportunities and multilingual e-learning courses for professionals working in food and nutrition security, social and economic development and sustainable management of natural resources, with the overall goal of strengthening capacity of member countries to achieve the 2030 Agenda for Sustainable Development, focusing on transfer of competencies, development of expertise, and promoting innovation.

## List of FAO elearning Academy courses relevant to forestry

### [Why a national forest inventory?](#)



**This course describes the goals and purpose of a national forest inventory (NFI) and explores how NFIs inform policy- and decision-making in the forest sector. It then explores the importance of data in forest-related decision-making and evaluates the contribution of NFIs in national, international and climate change data reporting mechanisms.**

### [Preparing for a national forest inventory](#)



**This course describes the planning and preparation phase of a national forest inventory (NFI). This course is primarily intended for people who are involved in NFIs but can be taken by anyone with an interest in the subject.**

### [Introduction to sampling](#)



**This course covers the general aspects of sampling in forest inventories and aims to introduce the basic concepts and characteristics of a sampling study, as well as provide an overview of the most important components of a national forest inventory (NFI).**

#### [Introduction to fieldwork](#)



**This course lays down the considerations for fieldwork and discusses plot-level variables as well as tree-level measurements. This course is primarily intended for people who are involved in NFIs but can be taken by anyone with an interest in the subject.**

#### [Data management in a national forest inventory](#)



**This course provides an overview of information gathering and data management for national forest inventories (NFI). This course is primarily intended for people who are involved in NFIs but can be taken by anyone with an interest in the subject.**

#### [Quality assurance and quality control in a national forest inventory](#)



**This course provides an overview of Quality Assurance (QA) and Quality Control (QC) procedures in forest inventory data collection and management. This course is primarily intended for people who are involved in NFIs but can be taken by anyone with an interest in the subject.**

#### [Elements in data analysis](#)



**This course offers guidance on the typical approaches and calculations used in forest data analyses and related topics. This course is primarily intended for people who are involved in NFIs but can be taken by anyone with an interest in the subject.**

#### [National forest inventory results: reporting and dissemination](#)



**This course covers national forest inventory (NFI) reporting in detail and establishes the importance of reporting in the context of REDD+ actions.**

[Resilient rivers: watershed-based management of forests, freshwater, and inland fisheries](#)



**Focusing on freshwater systems, this course inspires managers, scientists, and community members to work across disciplines and watersheds. The course coaches learners to understand, monitor, and manage watersheds as integrated systems.**

[Addressing corruption in the tenure of land, fisheries and forests](#)



Addressing Corruption in the Tenure of Land, Fisheries and Forests

**This course provides an overview of corrupt practices in the tenure sector. It analyses the drivers and impact of corruption on the livelihoods and food security of poor and vulnerable people. It also introduces...**

[Addressing disputes and conflicts over the tenure of natural resources](#)



Addressing Disputes and Conflicts over the Tenure of Natural Resources

**This course provides guidance on managing competition over the use of land, fisheries and forests. It introduces a process for analyzing the underlying causes of disputes and conflicts. It also illustrates...**

[Addressing tenure issues in the context of natural disasters](#)



Addressing Tenure Issues in the Context of Natural Disasters

**One of the impacts of climate change is an increase in the incidence, severity and unpredictability of natural disasters. This course explains how livelihoods and tenure rights are affected by natural disasters, and illustrates how responsible governance of tenure of land, fisheries and forests...**

### [A guide to developing a resilient watershed management plan](#)



A guide to developing a resilient watershed management plan

**This course presents the basic principles and concepts related to resilient watershed management, and, through the description of a case study, practically illustrates the process for formulating a resilient watershed management plan, from the analysis of the enabling environment to the definition of the risk management measures to implement...**

### [Climate-smart forestry](#)



Climate-smart forestry

**This course explores the role of forests and trees in Climate-Smart Agriculture (CSA). It takes into consideration the ecosystem services and goods that forests provide, and the importance of forests for the food security of forest-dependent people. It explores the complex relationship...**

### [Collecting household welfare data through forestry modules](#)



Collecting household welfare data through forestry modules

**The e-learning on the 'National socioeconomic surveys in forestry' comprises four courses that aim to provide guidance on the use of forestry modules to collect data on the socioeconomic contributions of forests and non-forests environments to household welfare and livelihoods...**

### [Developing bankable business plans for sustainable forest-based enterprises](#)



**This course has been developed to improve the capacity of small-scale producers, their organizations, and small and medium-sized enterprises to access investment and other forms of finance. Facilitating this allows these stakeholders to derive socioeconomic benefits from their participation in forest value chains, and also complements the resources of official channels...**

### [Estimating GHG emissions and carbon sequestration in agriculture, forestry and other land use with EX-ACT](#)



Estimating GHG Emissions and Carbon Sequestration in Agriculture, Forestry and Other Land Use with EX-ACT

**Are you aware that AFOLU contributes to carbon sequestration as co-benefits through productive and sustainable landscape management? At the same time, Agriculture, Forestry and Land Use Change (AFOLU) is the second largest emitter of greenhouse gas (GHG) emissions worldwide...**

### [Forest and Water Nexus – Introduction](#)



Forest and Water Nexus - Introduction

**This course is intended to provide an overview of forest and water relationships, and an understanding of the impacts of changing landscapes on water resources. It can be used as a stand-alone course...**

### [Forests and transparency under the Paris Agreement](#)



Forests and transparency under the Paris Agreement

**The objective of this course is to learn about the Enhanced Transparency Framework (ETF) under the Paris Agreement. It will be useful to those wishing to understand the importance of forest-related data collection, analysis and dissemination in meeting the Enhanced Transparency Framework...**

### [Governing land for women and men](#)



Governing land for women and men

**This course explains the importance to take into account gender and social issues when dealing with land tenure, and what actions must be adopted so that women and men from different social groups can equally participate in and benefit from land tenure governance processes...**

### [How to monitor and promote policy changes on governance of tenure](#)



How to monitor and promote policy changes on governance of tenure

The course provides guidance on some of the main issues to consider when implementing a monitoring activity: how to select the most appropriate approach or to identify the best data sources for monitoring, how to effectively communicate the results of the monitoring activity...

### [Introduction to forest and landscape restoration](#)



Introduction to forest and landscape restoration

Degradation of forests and landscapes impacts the global climate, and also the food security and livelihoods of communities. Forest and landscape restoration (FLR) is a process which brings stakeholders together to create healthy, resilient and productive landscapes and meet national, regional and global commitments.?

### [Introduction to national socioeconomic surveys in forestry](#)



Introduction to national socioeconomic surveys in forestry

The e-learning on the 'National socioeconomic surveys in forestry' comprises four courses that aim to provide guidance on the use of forestry modules to collect data on the socioeconomic contributions of forests and non-forests environments to household welfare and livelihoods...

### [Introduction to the responsible governance of tenure](#)



Introduction to the responsible governance of tenure

The course introduces the main concepts and principles of the Voluntary Guidelines on the Responsible Governance of Tenure. It aims to help people understand the Guidelines and to apply the principles to practical situations in their countries, as well as to raise the general...

#### [Istituzionalization of forest data](#)



This course is designed for individuals who have an interest in establishing and developing a national forest monitoring system (NFMS), and to learn about the institutionalization process. The course targets legal experts, ministries, government officers, academia and private sector...

#### [Measuring the role of forests and trees in household welfare and livelihoods](#)



The e-learning on the 'National socioeconomic surveys in forestry' comprises four courses that aim to provide guidance on the use of forestry modules to collect data on the socioeconomic contributions of forests and non-forests environments to household welfare and livelihoods...

#### [Monitoring forest and landscape restoration](#)



As countries work to meet their national commitments to restoring degraded landscapes, it is important that all FLR interventions have manageable monitoring systems in place, to assess progress towards specific goals, support adaptive management and ensure transparency...

#### [Operationalising the forestry modules](#)



The e-learning on the 'National socioeconomic surveys in forestry' comprises four courses that aim to provide guidance on the use of forestry modules to collect data on the socioeconomic contributions of forests and non-forests environments to household welfare and livelihoods...

#### [Planning seed and seedling supply for forest and landscape restoration](#)



**This course explores how to plan seed and seedling supply for forest and landscape restoration (FLR). This includes the importance of considering seed and seedling origin and genetic quality, the reproductive and supply chain bottlenecks that reduce genetic diversity or adaptive capacity, and approaches, tools and institutional frameworks that can help ensure that quality seed and seedlings are available for diverse restoration objectives.**

[Putting the voluntary guidelines on tenure into practice: a learning guide for civil society organizations](#)



Putting the Voluntary Guidelines on Tenure into Practice: A Learning Guide for Civil Society Organizations

**This online guide for trainers and facilitators in Civil Society Organizations presents a methodology and a set of materials to enhance capacities on the “Voluntary Guidelines on the Responsible governance of Tenure of Land, Fisheries and Forests in the context of National Food security” ...**

[Respecting free, prior and informed consent](#)



Respecting Free, Prior and Informed Consent

**The Voluntary Guidelines on Governance of Tenure state that responsible investments should do no harm, and safeguard against dispossession of legitimate tenure right holders. They also embody international legal provisions requiring the Free, Prior and Informed Consent (FPIC) from...**

[SDG indicators 15.1.1 and 15.2.1 - Forest area and sustainable forest management](#)



SDG indicators 15.1.1 and 15.2.1 - Forest area and sustainable forest management

**This course has been developed to guide countries in reporting on Indicators 15.1.1 and 15.2.1. It illustrates the rationale of the indicators, the definitions and methodologies on which monitoring activities are based, and explains the process and the tools available for compiling...**

[Sharing the experience on “Forest and land monitoring for climate action – SEPAL” facilitated course](#)



The overall objective of this course is to support knowledge and skills development to operationally apply high-resolution satellite imagery to critical forest and land monitoring in tropical forest countries. More specifically, the course focuses on how the System for Earth Observation Data Access...

[Sharing the "Forests and Transparency under the Paris Agreement" MOOC multilingual experience](#)



This Massive Open Online Course (MOOC) was based on the FAO e-learning course “Forests and transparency under the Paris Agreement” available on the FAO e-learning Academy. In this course participants learnt about the importance of forest-related data collection, analysis...

[Spatial planning in the context of the responsible governance of tenure](#)



Spatial Planning in the context of the Responsible Governance of Tenure

The course introduces spatial planning, identifying its rationale and benefits, its key principles and the main stages in the spatial planning process. It represents a useful reference for all those who want to promote and implement spatial planning in their countries as an instrument to...

[Sustainable financing of Forest and Landscape Restoration](#)



Sustainable Financing of Forest and Landscape Restoration

To meet countries’ national commitments to restoring degraded landscapes, adequate public and private investments are needed to support the different steps of the FLR cycle. Financing sources are more efficient when used in a coordinated way. ?..

[Tenure security for better forestry - Applying the Voluntary guidelines on the responsible governance of tenure](#)



**Governments and development actors increasingly recognize that strengthening tenure can create powerful incentives for the sustainable use of forest resources and contribute to achieving the UN Sustainable Development Goals and the Paris Agreement on climate change...**

[The national greenhouse gas inventory for land use](#)



The national greenhouse gas inventory for land use

**This course provides the necessary knowledge to build a sustainable National Greenhouse Gas Inventory (NGHGI) and assess greenhouse gas (GHG) emissions and removals from the land use sector. It focuses on the biological and physical process that lead to GHG fluxes from...**

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