

# Institutionalization of forest data

## Lesson 2: Legal and institutional arrangements to operationalize an NFMS

Text-only version

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This lesson introduces the **legal instruments for institutionalizing a National Forest Monitoring System (NFMS)**, presenting the **actors** and **responsibilities** supporting the different components of an NFMS. It also presents the various issues pertaining to data accessibility and the implications of **lack of transparency** that can lead to unreliable and/or unsustainable results and the **legal solutions** to tackle those challenges.

## Learning objectives

At the end of this lesson, you will be able to:

- understand the importance of institutionalizing an NFMS for more streamlined use of information generated in the forest sector;
- identify the actors and responsibilities involved in operating the NFMS; and
- recognize the types of issue pertaining to data-sharing, accessibility and lack of transparency that can lead to unreliable and/or unsustainable results.

## Why are legal and institutional arrangements needed to establish an NFMS?

A **robustly institutionalized** NFMS can help to ensure ownership, permanency in data collection, and that a clear governance structure defining the roles of the different entities involved in an NFMS and related information systems is adopted.

According to the Voluntary guidelines on national forest monitoring (VGNFM) presented in **Lesson 1**, the process of **‘institutionalizing’ an NFMS** means that it is formally, firmly and permanently embedded within a country’s forest administration. It is crucial to set up a legal basis, financial commitment and a permanent institutional framework to support efficient implementation and operation.



Forest-related institutions with clear mandates can facilitate the task of ensuring the sustainability of an NFMS. They can also increase transparency and reliability of forest data for national and international reporting and access to financial resources, including **REDD+ results-based payments (RBP)**, and adequately inform decision-making processes to reduce deforestation and degradation and promote sustainable forest management.

**REDD+ results-based payments**

UN-REDD has supported the implementation of all the following phases:

	 <b>National Forest Monitoring System</b>	 <b>Forest Reference (Emission) Levels</b>	 <b>Safeguards and Safeguards Information System</b>	 <b>National Strategies / Action Plans</b>
<b>PHASE 1</b>	<b>Readiness</b>  WARSAW FRAMEWORK  Development of national strategies, action plans and capacity building			
<b>PHASE 2</b>	<b>Implementation</b>  Implementation of national strategies, action plans, deployment of NFMS, capacity building and results-based demonstration activities.			
<b>PHASE 3</b>	<b>Results</b>  <ul style="list-style-type: none"> <li>• Results-based actions are fully measured, reported and verified and countries can access results-based payments.</li> </ul>			

**What can a robustly-institutionalized NFMS do?**

Forestry implies **long-term processes**, which require sound structures capable of guaranteeing implementation of the measures adopted over time and across political cycles. A robust and institutionalized NFMS can then help to ensure that:

- national monitoring of forests is considered a fundamental government responsibility, and therefore instils ownership;
- transparent and reliable data and information are consistently collected, managed, made permanently available and analysed over time;

- data are stored in a secured physical and digital archival system, so as to be permanently available by users;
- national professional staff are retained, which is a precondition for further development and improvement of the system;
- the government knows who to refer to when analysis and specific forest-related information are needed;
- information flows between competent entities are clearer and are based on data-sharing and reporting protocols;
- the expertise and experience developed are stored to create the necessary ‘institutional memory’; and
- a clear governance structure is adopted, defining the roles of the different entities involved in the NFMS and related information systems.

### **FAO support to NFMS institutionalization**

FAO supports NFMS institutionalization through various programmes. One of these is the UN-REDD Programme, which stands for the United Nations Collaborative Programme on Reducing Emissions from Deforestation and forest Degradation (REDD+) in developing countries. The programme was launched in 2008 and builds on the convening role and technical expertise of FAO, the United Nations Development Programme (UNDP) and the United Nations Environment Programme (UNEP). Special thanks are due for support from Denmark, Japan, Luxembourg, Norway, Spain, Switzerland and the European Union. More information is available at: [www.un-redd.org/](http://www.un-redd.org/). It assists partner countries in delivering through:

1. direct support for the design and implementation of the four REDD+ pillars and access to RBPs;
2. complementary tailored support to national and subnational REDD+ actions; and
3. technical capacity-building support and facilitated South-South knowledge-sharing.

FAO support to countries is informed by decisions of the Conference of the Parties under the **United Nations Framework Convention on Climate Change (UNFCCC)**, as well as the guidelines provided by the Intergovernmental Panel on Climate Change.



Case studies will be presented in **Lesson 3**.

## Operationalizing a National Forest Monitoring System

Countries have made substantial advances in developing and operationalizing their National Forest Monitoring Systems, to comply with measuring, reporting and verification (MRV) commitments, including for REDD+ under the UNFCCC, as well as to provide better forest data to effectively support decision-making and domestic policies to reduce carbon emissions from the forest sector. Guided by the UNFCCC, the establishment of an NFMS for REDD+ has been advanced through **capacity development** for national agencies and stakeholders, and through South-South cooperation.

## Relevant international commitments and soft-law instruments

Negotiations between UNFCCC signatory countries within the Conference of the Parties (COP) led to a series of decisions relating to REDD+ activities over time. These take the form of a **combination of principles, rules and modalities**, including methodological guidance to develop a robust and transparent NFMS. The result of this process is a series of provisions, including recommendations and requirements that are both institutional and technical.

An NFMS should play a crucial role in the provision of information and estimates under the **Enhanced Transparency Framework under the Paris Agreement** (Art. 13), under which, beyond 2020, developing countries will have to submit the REDD+ Annex for technical expert review.

### Enhanced Transparency Framework under the Paris Agreement

Designed to promote transparency and mutual trust, the Enhanced Transparency Framework (ETF) is based on existing transparency arrangements set up under the United Nations Convention on Climate Change (UNFCCC), commonly known as the **measurement, reporting and verification (MRV) framework**. Transparency of action refers to the information that each country has to provide on a regular basis in order to track the progress of implementing National Determined Contributions (NDCs), national greenhouse gas inventory (NGG-I) reports, and information related to climate change impacts and adaptation. Transparency of support refers to clarity on the support provided and received for mitigation, adaptation, finance, technology development and transfer, and capacity-building. The Transparency Framework is guided by the Modalities, Procedures and Guidelines, which stipulate that

all countries (except Least Developed Countries and Small Island Developed States) are required to submit reports and information every two years, and to track the progress of their NDCs. To learn more about the ETF, see the course '[Forests and transparency under the Paris Agreement](https://elearning.fao.org/course/view.php?id=587)' (<https://elearning.fao.org/course/view.php?id=587>).

Other relevant international commitments and soft-law instruments include the following:

### **Bonn Challenge**

This aims to bring 150 million hectares (ha) of the world's deforested and degraded land under restoration by 2020, and 350 million ha by 2030. Underlying the Bonn Challenge is the Forest Landscape Restoration approach, which aims to restore ecological integrity while improving human well-being through multifunctional landscapes. See also the [United Nations Decade on Ecosystem Restoration](https://www.decadeonrestoration.org/). <https://www.decadeonrestoration.org/>

### **Sustainable Development Goals**

Especially **SDG 15** (<https://www.globalgoals.org/goals/15-life-on-land/>), which calls for sustainably managed forests, combating desertification, halting and reversing land degradation and halting biodiversity loss.

### **Target 5 and 7 of the Aichi Goals**

In particular according to Target 5, by 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced. Target 7: By 2020, areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.

### **New York Declaration on Forests**

The **New York Declaration on Forests** (<https://unfccc.int/news/new-york-declaration-on-forests>) is a political declaration that brings together governments, companies and civil society actors, including Indigenous Peoples' organizations, with the common aim of halving the loss of natural forests by 2020, and striving to end it by 2030. The Declaration has been endorsed by dozens of governments, over 30 of the world's biggest companies, and more than 50 influential civil society and indigenous organizations.

## Mapping the responsibilities and actors of the NFMS

As described in the stakeholder mapping in Lesson 1, an NFMS involves many actors supporting different components of the system, such as data collection, analysis and management, monitoring and measuring of greenhouse gas (GHG) emissions, and reporting and verifying of emissions reductions in the forest sector.

For this reason, the responsibilities for the NFMS elements scattered between and within a range of **institutions, divisions or departments** should be reflected in the legal instrument, taking into account **gender considerations** to valorize the role of women in forest-related institutions. In addition, there must be agreement on the methodologies to be used for analysing data and ensuring coherency among sectoral entities.



### Governmental and non-governmental actors

Although a single government institution may be responsible for coordinating the various components of an NFMS, various governmental and non-governmental institutions are involved in operating the system, by contributing to the forest inventory, through forest mapping, planning and management, forest and land monitoring, soil carbon measurement, species identification, greenhouse gas estimations and reporting, etc.

Institutions can include **technical divisions of ministries, state commissions and agencies, private companies, non-governmental organizations (NGOs), universities, regional research centres and international cooperation partners.**

## Legal challenges for NFMS institutionalization

Concerns about distortion, storage or misuse of data and information, lack of trust, cost-related issues, ambiguous institutional mandates and unclear legal frameworks are often at the root of data accessibility challenges.

While **informal solutions** sometimes produce results, they are generally unreliable and unsustainable.

In addition, **weak information on data-sharing systems**, or lack of it, may result in the duplication of efforts.





A firmly institutionalized NFMS helps to address a number of challenges related to sustainability, accessibility, data-sharing and transparency.

### Data accessibility and sharing issues

Accessing and sharing data among institutions - either governmental or non-governmental - and within the same institution, can sometimes be a difficult task!

While **informal solutions** sometimes produce results, they are generally unreliable and unsustainable, as they often depend on personal networks and may require some return of favour. In addition, weak information on data-sharing systems, or lack of it, may result in the **duplication of efforts**, which is not cost-efficient, and could lead to inconsistencies.

Even if data are shared, issues of format and reliability often arise, together with conflicts over **how data should be used, stored and organized**.

### Why is monitoring important in the context of the UNFCCC?

National Forest Monitoring (NFM) is critical to the provision of effective information to policy-makers, in order to facilitate sustainable forest management and assist countries in complying with their emissions reduction goals. An NFMS focuses on **acquiring national-level data and information on forests**, their condition, values and uses.

**NFM enables countries to align their forest policies with updated, reliable, transparent and accessible information.**

Robust and transparent National Forest Monitoring Systems are essential for countries to inform effective forest-related national decision-making processes, while complying with international commitments, such those under the UNFCCC.



### Monitoring functions

Monitoring functions can go beyond forest carbon assessment, to include other elements such as forest health, biodiversity, production, protection and socioeconomic functions, as well as legal and political frameworks related to the

forest sector. In certain countries, National Forest Monitoring Systems extend to trees outside forests and contribute to land-use monitoring.

### Need for a multisectoral coordination mechanism

If the monitoring function includes forests and land-related data, a **multisectoral coordination mechanism** articulating forest,

environmental and land-use change information will be required.

Once such clarity has been obtained, and the governance structures of an NFMS have been defined, the system could be supported by the establishment of a legal basis for national forest monitoring.



This may reflect the institutional arrangements needed to clarify and coordinate the roles and responsibilities of the various entities engaged in the NFMS, and promote the allocation of financial and human resources. In some countries, it may also require the creation of a particular service or unit to operate the NFMS.

### Summary

In this lesson, you have learned that:

- A **robustly institutionalized NFMS** can help to ensure **ownership** and **permanency** in data collection, and that a clear **governance** structure defining the **roles** of the different **entities** involved in an NFMS and related **information systems** is adopted.
- **Efforts** by countries in developing and **institutionalizing** their NFMS have been **fundamental** to increasing **transparency** and to enhancing country **ownership**, which is key to its **sustainability**, paving the way for more **streamlined** use of **forest data**, data-sharing and transparency.
- Accessing and sharing data among institutions can sometimes be difficult, and **informal solutions** may produce **unreliable** and unsustainable **results**.
- Since weak information on data-sharing systems, or lack of it, may result in the **duplication of efforts**, a **multisectoral coordination** mechanism articulating forest, environmental and land-use change information can be **highly effective**.