

How are large-area forest data produced –and how are they used?
A science policy issue in global forestry processes

*“A National Forest Monitoring System, more than data collection:
Some key highlights from the FAO Voluntary Guidelines
on National Forest Monitoring”*

IN THIS PRESENTATION



- **THE VOLUNTARY GUIDELINES ON NATIONAL FOREST MONITORING**
Brief introduction
- **A NATIONAL FOREST MONITORING SYSTEM**
FAO's Definition
- **A NATIONAL FOREST MONITORING SYSTEM**
The process
- **CONCLUSION**



VOLUNTARY GUIDELINES ON NATIONAL FOREST MONITORING



Brief Introduction

-21th Committee on Forestry (2012):

- FAO was requested “to prepare a set of voluntary guidelines on national forest monitoring.

-23th Committee on Forestry (2016):

- The Voluntary Guidelines on National Forest Monitoring were endorsed.
-<http://www.fao.org/3/a-mq482e.pdf>-



VOLUNTARY GUIDELINES ON NATIONAL FOREST MONITORING



MAIN OBJECTIVES

- To present a general framework to compile good practice principles, methodologies and tools for planning and implementing national forest monitoring.
- To contribute to the development of basic standards that facilitate the comparison of information in space and time - including among other harmonization of terminology and definitions.

VOLUNTARY GUIDELINES ON NATIONAL FOREST MONITORING



WERE PREPARED; BASED ON

The Voluntary Guidelines are based on the experiences and lessons learned of FAO member countries and past and present FAO forest monitoring projects and initiatives, as well as inputs provided at a number of international workshops and technical meetings held between 2012 and 2015.

Valuable contributions and advice were also received from a number of institutional partners and stakeholders.

VOLUNTARY GUIDELINES ON NATIONAL FOREST MONITORING



WERE PREPARED; KEEPING IN MIND

- Establishing and running a National Forest Monitoring System (NFMS) is a complex scientific-technical exercise on the one hand but also an organizational challenge.
- It is at the same time an immediately policy related activity which is one of the pre-conditions for informed management and policy decisions regarding the sustainable use of the forest and tree resources and also regarding the efficient protection and conservation of forest ecosystems.
- And definitively a NFMS is a no “on-fits-all” optimal solution.
- The implementation of a NFMS must be target-driven in that it is oriented towards the specified objectives and it must be realistically feasible within the available resources regarding time, budget and human resources

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General Principles

- ✓ **Governance Principles**
- ✓ **Scope Principles**
- ✓ **Design Principles**
- ✓ **Data Principles**
- ✓ **Overall principles**

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General Principles

- | | |
|--------------------------------|---|
| ✓ Governance Principles | <i>referring to the institutional setting and governance</i> |
| ✓ Scope Principles | • Country ownership and responsibility |
| ✓ Design Principles | • Legal basis |
| ✓ Data Principles | • National Forest Monitoring needs a landscape view |
| ✓ Overall principles | • National Forest Monitoring should be institutionalized |
| | • Research infrastructure and capacity building |

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General Principles

- ✓ **Governance Principles** *referring to the identification of information needs*
- ✓ **Scope Principles**
 - Participatory discussion process among national stakeholders on the scope and objectives of forest monitoring
 - The National Forest Monitoring must satisfy national level information needs
- ✓ **Design Principles**
- ✓ **Data Principles**
- ✓ **Overall principles**

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General Principles

✓ Governance Principles

referring to data collection and analyses (including sample based field inventories and remote sensing analyses)

✓ Scope Principles

✓ Design Principles

✓ Data Principles

✓ Overall principles

- Integration of and consistency with existing information sources
- A flexible approach in order to integrate emerging issues and allow for periodic revisions
- National forest monitoring should follow a multi-purpose approach.
- Feasibility including cost-efficiency

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General Principles

- ✓ **Governance Principles** *referring to information generation, reporting and dissemination and, in particular, data availability*
 - ✓ **Scope Principles**
 - ✓ **Design Principles**
 - ✓ **Data Principles**
 - ✓ **Overall principles**
- **A well-defined data and information sharing policy**

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General Principles

- ✓ Governance Principles
- ✓ Scope Principles
- ✓ Design Principles
- ✓ Data Principles
- ✓ **Overall principles**

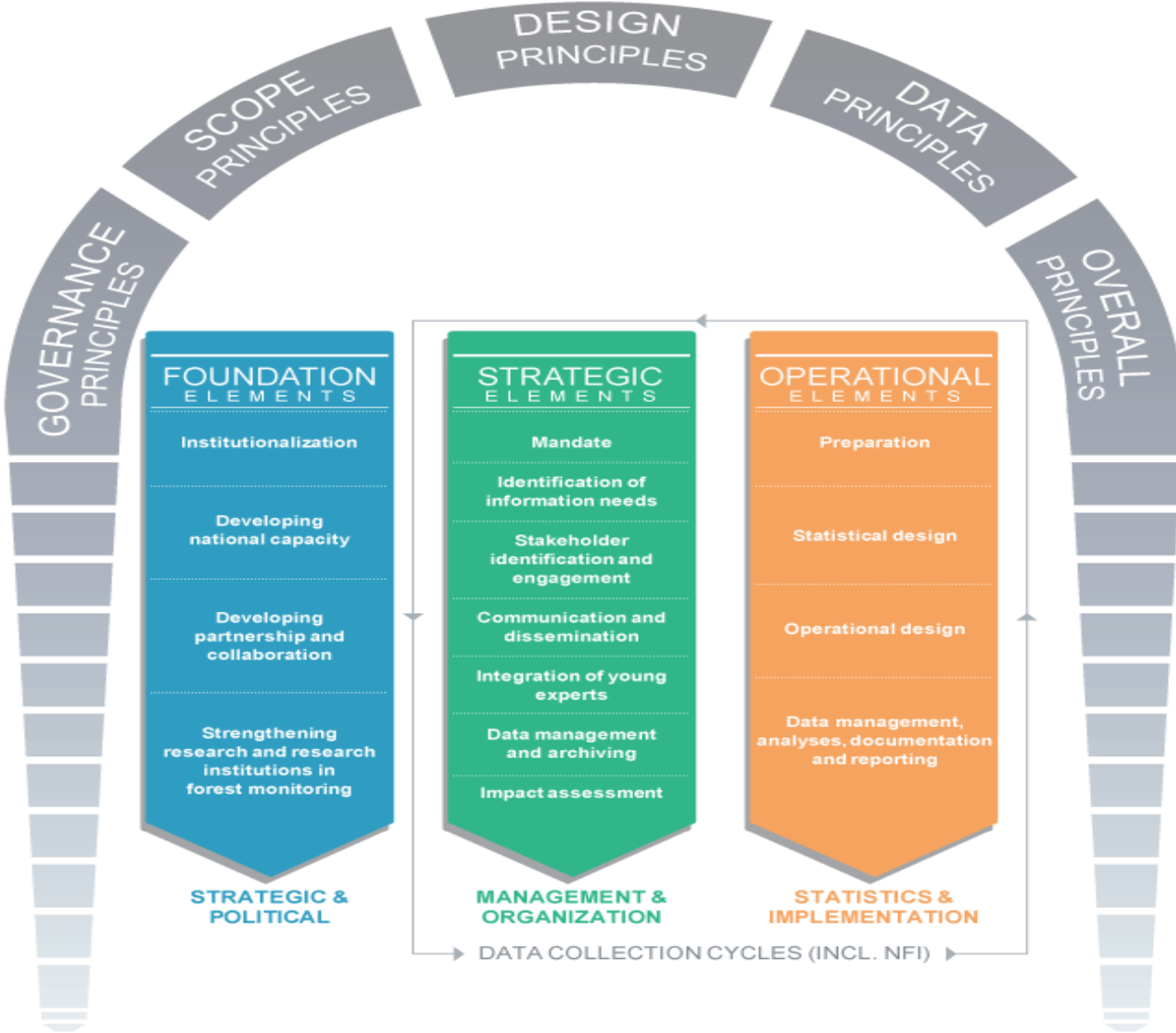
which suggest general guidelines.

- **Credibility through transparency and quality**
- **Collaboration at the international level**

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The Framework





The foundation elements

- Address fields of action that define the framework conditions within which a NFMS is implemented in organizational and technical terms.
- Prepares the grounds for efficient planning and implementation of a forest monitoring system as a long term undertaking
- Preparing the foundation elements may take quite some time. However, that does not mean that the technical planning and implementation work of data collection activities in a first national forest assessment must be postponed and can only be started when all foundation elements are in place.



The strategic elements

- Address fields of action that are specific for data collection activities within a particular forest monitoring system but do not refer to specific scientific-technical issues.
- These organizational and planning actions refer to the definition of goals, products and variables based on inquiries about information needs, to project planning including assignation of responsibilities, networking, communication, provisions of computers, measurement devices and means of transport and communication, recruiting and contractual issues and other matters related to human resources.
- These elements define the course of the NFMS and define the specific issues of the NFMS regarding the “how” and “who”



The operational elements

- Address fields of action that refer to the optimization and definition of the technical design elements of field data collection and remote sensing analyses including approaches to quality control, the detail operational planning, the preparation and implementation of data acquisition, the data analysis, and eventually the focused reporting to specific target groups

A NATIONAL FOREST MONITORING SYSTEM



National Forest Monitoring and National Forest Inventory



Assessment, evaluation, interpretation and reporting of the data and the derivation of information, usually from repeated inventories that allow for the monitoring of change and trends over time

Technical process of data compilation and analyses

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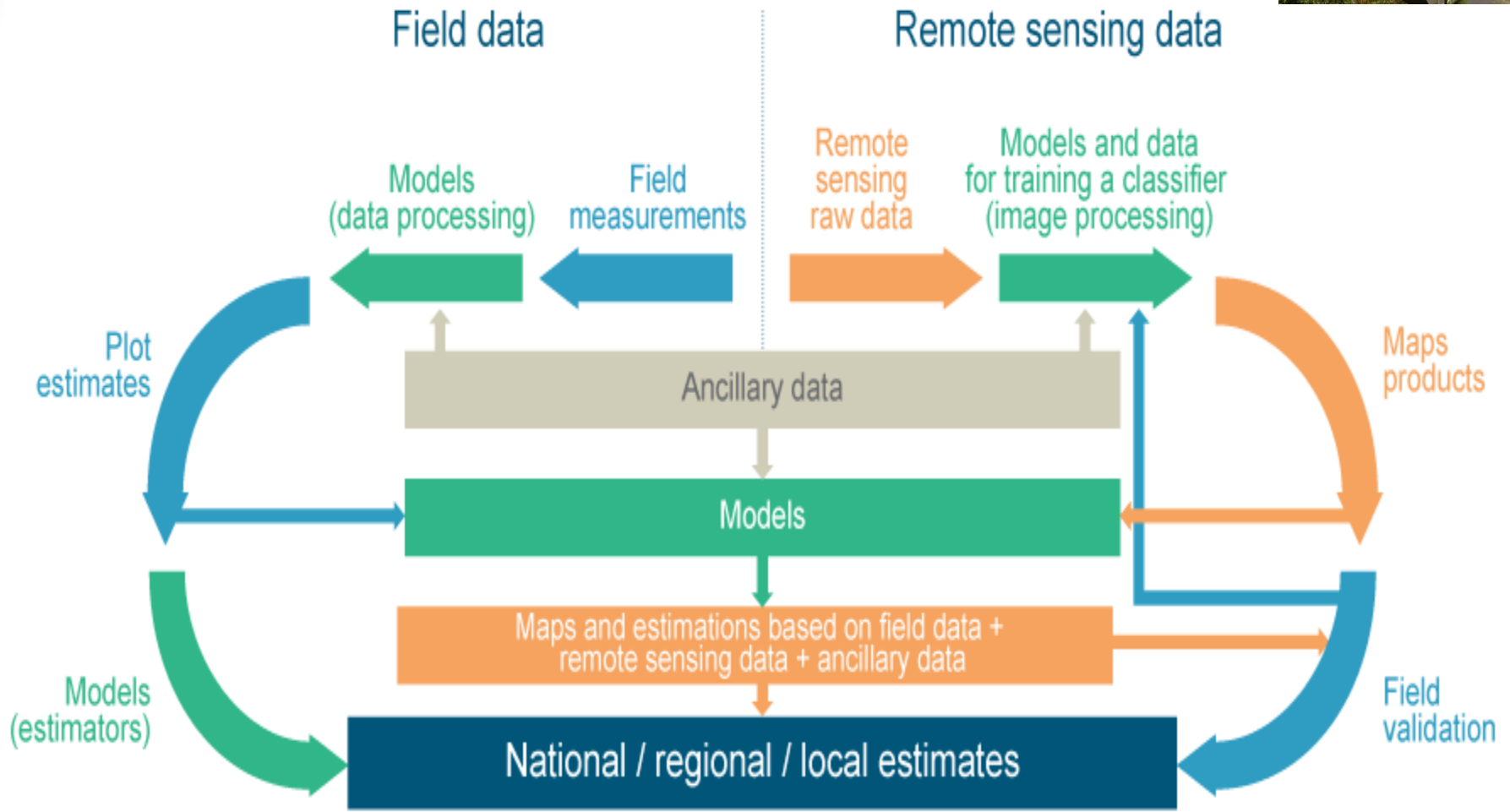
FAO's Definition

Comprises the people, institutions and resources that implement national forest monitoring at the country level in collaboration with other stakeholders. Generally, a NFMS is led by a governing body responsible for its conceptualization, planning and execution within a clear and well-defined mandate, based on the principles and elements introduced in the FAO-VGNFM

A NATIONAL FOREST MONITORING SYSTEM



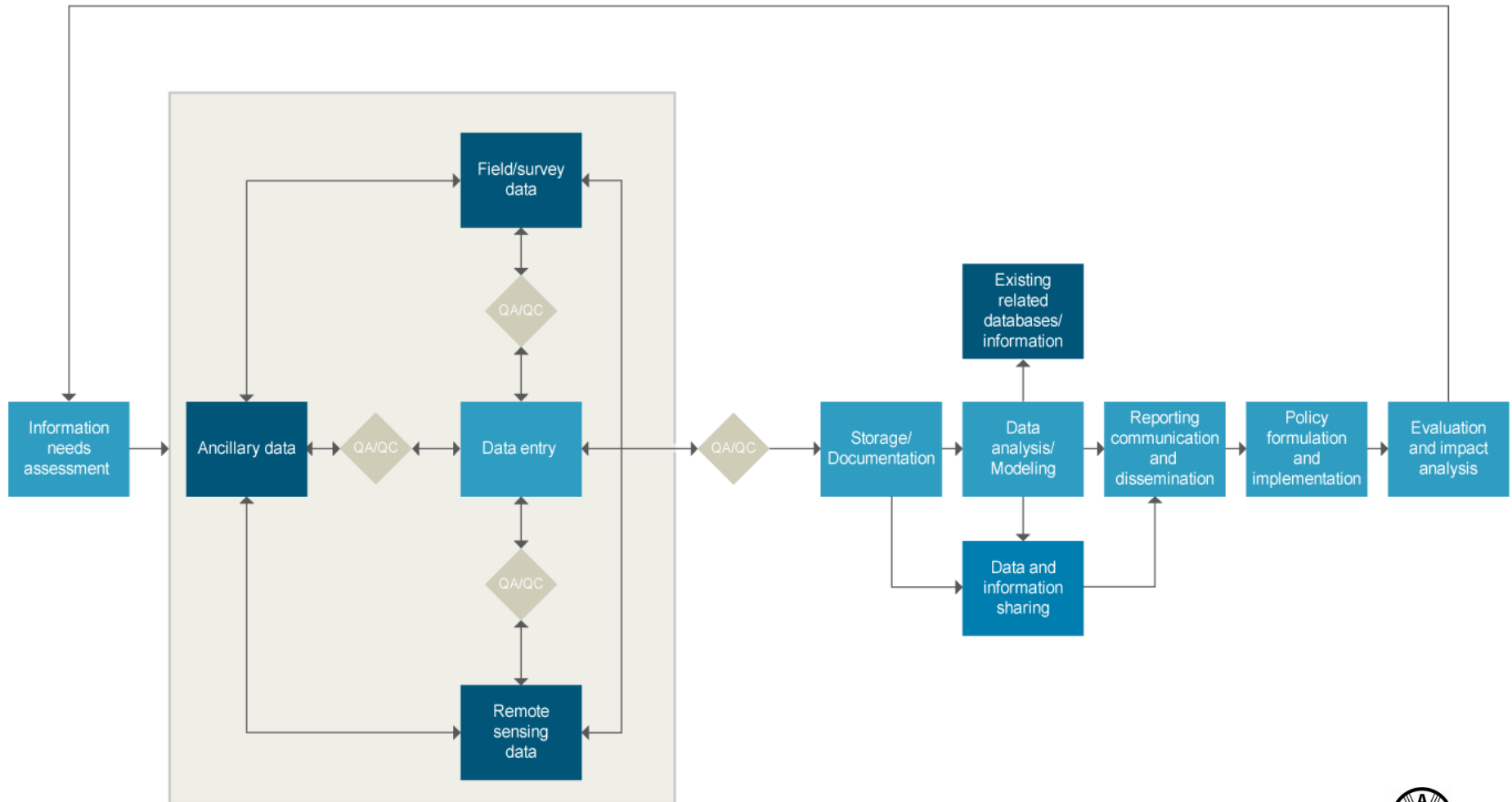
Sources of Information



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Data management framework



CONCLUSION



Establishing and running a NFMS is a complex governments' task that serves to better inform forest related decisions and thus supports to sustainably develop the forests on national level. It requires a long-term vision and interdisciplinary collaboration and is equally a demanding and exciting endeavor.

The conceptualization of a NFMS, should not only be focused on the data collection and analysis, but as well the use of the information for policy and decision making.

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Thank you !