About the NFI Brazil

The main purpose of the NFI is to generate information on forest resources, both natural and plantations, based on a 5-year measurement cycle, to support the formulation of public policies aiming at forest resources use and conservation.

NFI will produce information on forest stocks, composition, health and vitality, as well as the patterns of change in time by comparing estimates from successive inventory cycles.

These estimates may serve to support the design of regional and national policies based on updated and reliable data, to identify strategies and opportunities for sustainable use of the forest resources by the forestry sector, and also to keep society and politicians informed on the national forest resources situation. Further, NFI information can be used to address the increasing demand by international organizations and agreements for forest information.

The Brazilian Forest Service coordinates the NFI, providing financial and technical resources, leading the execution and managing the institutional agreements and technical cooperation with the participating national institutions.

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About the Brazilian Forest Service

The Brazilian Forest Service (BFS) was created in 2006 for the purpose of managing public forests for production goods and services, as well as of promoting forest development in Brazil.

The BFS strategy for management in public forests is set on the conservation and on the social benefits deriving from the adequate use of forest resources, through innovative mechanisms, such as (1) the creation and direct management of national, state, and district forests; (2) non-payable destination of forest management rights to local communities; and (3) contributory forest concessions in which the right to manage a forest is defined before the bidding process.

Mission

To reconcile the use and conservation of forests, valorizing them in benefit of present and future generations, by means of management of public forests, building knowledge and capacities and offering specialized services.

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BRAZILIAN FOREST SERVICE

Ministry of the Environment

BRASIL
UM PAÍS DE TODOS
GOVERNO FEDERAL

National Forest Inventory
Brazil

ifn
National Forest Inventory

BRAZILIAN FOREST SERVICE

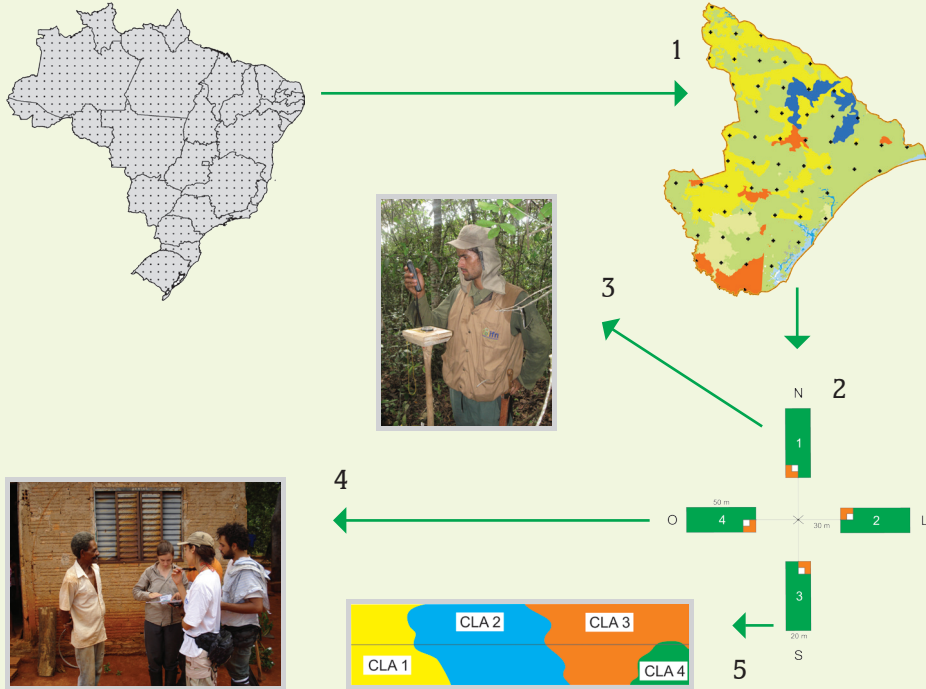# The National Forest Inventory

Background

Brazil occupies approximately 8.5 million squared kilometers, of which 62% are covered by forests. Those forests have enormous importance for the country, due to environmental and socio economic importance, as well as for their global contribution by delivering forest services, such as biodiversity conservation and carbon retention. At national level, concealing the use and conservation of natural resources is of strategic importance for the country. The National Forest Inventory is a key step to produce reliable and regular information on forest resources.

Methods

The NFI is based on a systematic sampling design, with a national grid of sample point at 20 x 20 km. At each sample point a cluster sample unit of four sub sampling units of 20 x 50 m is measured every five years. Field data collection comprises biophysical variables for forest and environment condition assessment, as well as socioeconomic variables (interviews) for characterization of how people living nearby forest use and perceive the forest resources. An additional component is for assessment at landscape level, by interpreting higher resolution satellite images in 10 x 10 km sample units, instead of field measurement. Among the landscape variables to be analyzed are forest fragmentation, changes in forest cover and land use, and the condition of permanent protected areas along rivers and water bodies as required by law.

Sampling Design

1 - National 20 x 20 km systematic sampling grid
2 - Clustered sample units with four 20 x 50 m sub units
3 - Biophysical variables for forest assessment condition
4 - Interviews with forest users near to the sample point
5 - Land Use Classes are mapped within sub units

Main Outputs

• Species composition

• Forest cover area

• Growing stock (volume)

• Biodiversity (tree species)

• Biomass and carbon stocks

• Forest structure

• Forest management

• Forest dynamic

• Forest health and vitality

• Soil characteristics

• Forest degradation

• Changes in forest cover

• Forest fragmentation

• Land use classes (LULUCF)

• Trees Outside Forests (TOF)

• Forest resources accessibility

• Local use of forest products and services

• Forest users' perceptions on their forest resources