

# National Forest Inventory 2017-2021

**Forest Inventory and Management Directorate**

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## Identification

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### SURVEY ID NUMBER

COD\_2017-2021\_NFI\_v01\_M\_v01\_A\_ESS

### TITLE

National Forest Inventory 2017-2021

### ABBREVIATION OR ACRONYM

NFI 2017-21

### COUNTRY

Name	Country code
Congo, Dem. Rep.	COD

### STUDY TYPE

Forest Survey

### SERIES INFORMATION

The National Forest Inventory was conducted between 2017 and 2021, and it was preceded by a pre-National Forest Inventory that was conducted between 2013 and 2016.

### ABSTRACT

From 2017 to 2021, the Ministry of the Environment and Sustainable Development (MEDD), through its Forest Inventory and Management Directorate (DIAF), with funding from CAFI via FONAREDD and technical support from FAO and other partners, has carried out a programme to finalise and implement the Democratic Republic of Congo's National Forest Monitoring System, of which the National Forest Inventory (NFI) is one of the key pillars. The aim of the NFI was to assess and monitor forest resources, as well as forest use and management practices, in order to provide new qualitative and quantitative information on the state, use, management and trends of these resources and ecosystems. The inventory includes information relating to a wide range of biophysical and socio-economic variables, thus providing a comprehensive picture of the country's forest resources and their environmental, social and economic contributions. More specifically, in addition to the implementation of the REDD+ mechanism, the information produced will be employed to develop and implement national and international policies as well as strategies aimed at the sustainable use of forest ecosystems. It will also help to understand the relationships that exist between forest resources and their users.

Thus, the implementation of the NFI should contribute to the achievement of the following objectives:

1. Collect the information needed to implement REDD+
2. Collect the information needed to develop a Sustainable Forest Management policy
3. Collect the information needed to conserve ecosystems, soils and biodiversity
4. Collect the information needed to draw up a land-use planning policy

The data is recorded in the database housed at DIAF.

### KIND OF DATA

Sample survey data [ssd]

### UNIT OF ANALYSIS

Plots of lands

## Scope

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### NOTES

The NFI mainly encompasses information on forest cover, growing stock, biomass, carbon stock, biodiversity, and forest disruption. The assessment provided comprehensive and up-to-date information on forest resources at national level to support forest policy formulation, forest sector decision-making and international reporting. Forest cover maps have been prepared to support an effective satellite-based land monitoring system. This assessment will enable permanent sample plots to be established for regular monitoring.

### TOPICS

Topic
National Forest Inventory (NFI)

## KEYWORDS

Keyword
NFI
REDD
MRV

## Coverage

## GEOGRAPHIC COVERAGE

National

## UNIVERSE

The country has been subdivided into 9 major land use classes, namely:

- Dense humid forest on dry land
- Dense humid forest on hydromorphic soil
- Secondary forest
- Dry forest (or open forest)
- Other forest
- Savannah
- Crops and regeneration of abandoned crops
- Water zone
- Agglomeration

The universe therefore includes all wooded areas in the country, with the exception of urban agglomerates.

## Producers and sponsors

## PRIMARY INVESTIGATORS

Name	Affiliation
Forest Inventory and Management Directorate	DIAF

## PRODUCERS

Name	Abbreviation
Food and Agriculture Organization of the United Nations	FAO
Central African Forest Initiative	CAFI
Fonds National REDD	FONAREDD

## FUNDING AGENCY/SPONSOR

Name	Abbreviation
Central African Forest Initiative	CAFI
Fonds National REDD	FONAREDD

## Sampling

## SAMPLING PROCEDURE

Systematic cluster sampling was used (in triangular degree) and 321 sampling units were distributed over the entire national

territory (excluding the former province of Bandundu). The sampling units are separated by a distance of 111 km.

A sampling unit is a square measuring 400 m x 400 m, each containing a group of four plots of land placed at the 4 corners of the sampling unit. So, a total of 1,284 plots have been planned.

The plots are 75 m x 75 m squares delimited within the sampling unit. They start at each corner of the sampling unit and are numbered clockwise from 1 to 4.

There are three different levels of data collection within a plot:

- Two Small Square Subplots (SSS) measuring 12.5 m x 12.5 m (156.25 m<sup>2</sup>) constitute level 1 for counting trees by species with a Diameter at Breast Height (DBH) greater than or equal to 5 cm and a height greater than or equal to 1.30 m
- Two Medium Square Plots (MSP) of 25 m x 25 m (625 m<sup>2</sup>) constitute level 2 for measuring trees with a DBH greater than or equal to 10 cm
- The rest of the plot (Large Square Plot - LSP) corresponds to level 3 for measuring trees with a DBH greater than or equal to 20 cm

There are also two 0.5 m square soil and litter sampling points (PMSL) located at the corner of the small sub-plots, and two dead wood transect (TBM) lines located at the end of each medium sub-plot.

Each plot will be divided into Land Use Sections (LOS) representing homogeneous units of land use or vegetation cover (forest, cropland, grassland, etc.) of varying size and shape, identified in the field.

The information is described in detail in the IFN field manual. More information is available at

<https://www.scribd.com/document/756583445/Manuel-de-Terrain-de-l-IFN-de-La-RDC-V2-04-Mars-2019>.

#### DEVIATIONS FROM THE SAMPLE DESIGN

Some inaccessible sampling units, as well as sampling units in conflict zones, were relocated, while others were not. As a result, 21 of the 321 planned sampling units could not be surveyed. Therefore, 93% of the sampling units were inventoried, that is 300 out of the 321 planned.

#### RESPONSE RATE

Out of all 321 sample units, 93% were surveyed, that is 300 entries. The remaining 21 sample units were not surveyed due to inaccessibility.

#### WEIGHTING

The same weight has been assigned to all Sample Units.

## Data collection

#### DATES OF DATA COLLECTION

Start	End
2017-09	2021-03

#### DATA COLLECTION MODE

Sample survey data [ssd]

## data\_processing

#### DATA EDITING

The data were collected using paper field sheets and validated by the National Forest Inventory technical unit after verification, before being entered into the Open Foris Collect database. To reduce errors during data entry, checks are carried out regularly using the Open Foris Collect application.

## data\_appraisal

#### ESTIMATES OF SAMPLING ERROR

Sampling error estimates are based on simple random sampling estimators. Non-sampling errors have not been taken into account in the analysis.

#### DATA APPRAISAL

The NFI was designed to collect data with an accuracy of 10% and a confidence level of 95%. Tree measurements were

recorded from 10 cm diameter upwards.

## Access policy

### CONTACTS

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### CONFIDENTIALITY

Access to the NFI/DRC database requires a request for authorisation and consequent approval from the Secretary General for the Environment and Sustainable Development. However, anything published on the SNSF web portal does not require specific authorisation.

### CITATION REQUIREMENTS

DIAF 2021: Inventaire Forestier National de la RDC. MEDD/RDC

## Disclaimer and copyrights

### DISCLAIMER

The user of the data acknowledges that the original collector of the data, the authorised distributor of the data and the funding body concerned are not responsible for the use of the data or any interpretations or inferences based on such use.

## Metadata production

### DDI DOCUMENT ID

DDI\_COD\_2017-2021\_NFI\_v01\_M\_v01\_A\_ESS\_FAO

### PRODUCERS

Name	Abbreviation	Affiliation	Role
Statistics Division	ESS	Food and Agriculture Organization of the United Nations	Metadata adapted for FAM
Development Data Group	DECDG	World Bank Group	Metadata adapted for World Bank Microdata Library

### DDI DOCUMENT VERSION

Identical to a metadata (COD\_2017-2021\_NFI\_v01\_M\_v01\_A\_ESS) published on FAO microdata repository (<https://microdata.fao.org/index.php/catalog>). Some of the metadata fields have been edited.

## data\_dictionary

Data file	Cases	variables
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# study\_resources

## reports

### Final Report

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title Final Report  
filename Rapport\_final\_IFN\_RDC\_pdf1972021.pdf

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## technical\_documents

### Field Manual

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title Field Manual  
filename Manuel\_terrain\_IFN.pdf

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