



Food and Agriculture  
Organization of the  
United Nations

Towards open  
and transparent  
forest data for  
climate action



**Experiences  
and lessons learned**



## REQUIRED CITATION:

FAO. 2022. *Towards open and transparent forest data for climate action - Experiences and lessons learned*. Rome. <https://doi.org/10.4060/cb8908en>

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ISBN: 978-92-5-135863-4

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## **Global**

Open data platforms  
and virtual knowledge



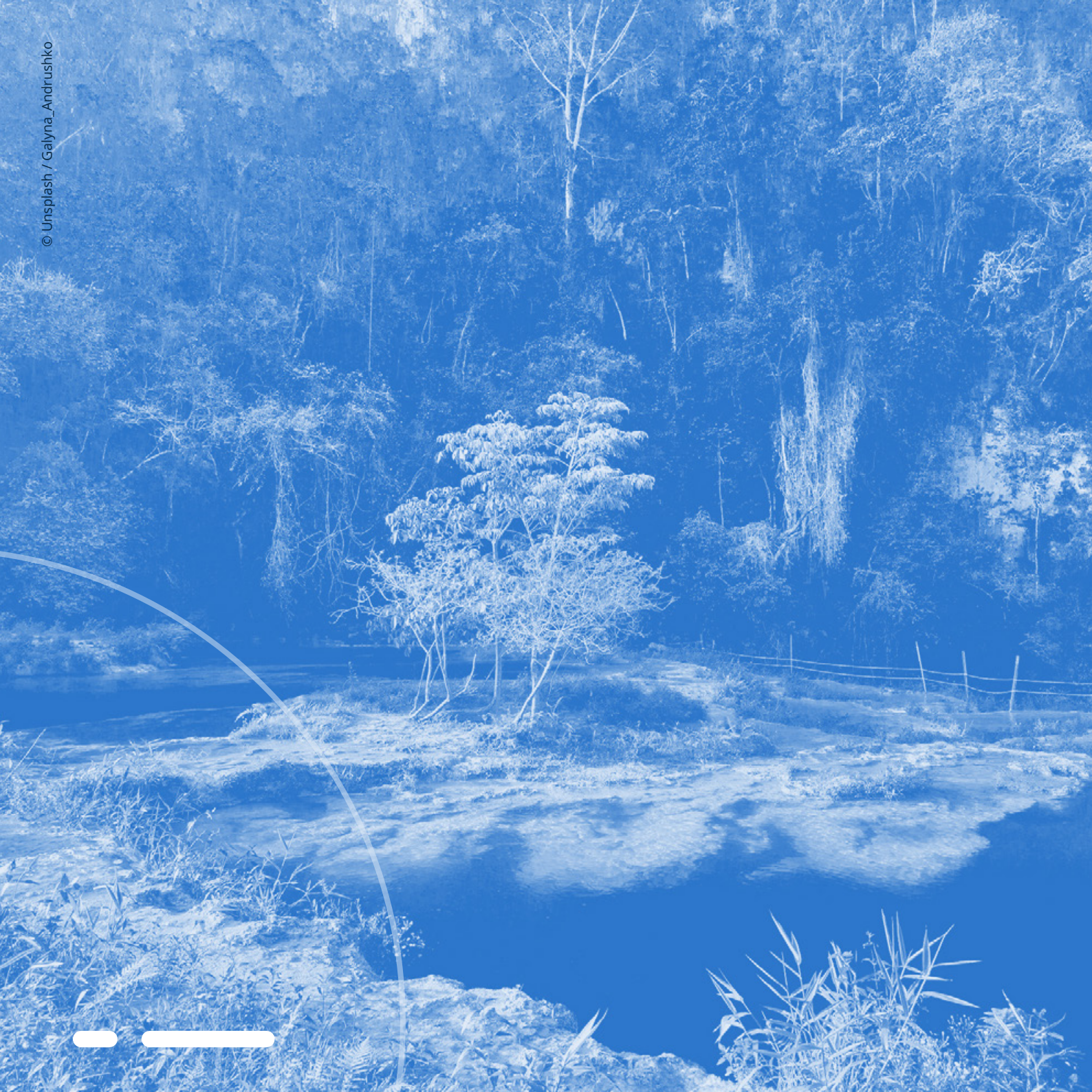
## **Regional**

Connecting regional  
forest actors



## **National**

Open and  
transparent  
forest data





# Transparency in forest data and information

The Paris Agreement on Climate Change rests upon a foundation of Nationally Determined Contributions (NDCs) originally submitted by Parties to the Convention in 2015, and formally adopted in November 2016 as the Agreement entered into force. Each NDC represents the national plans and pledges individual countries have made to meet the universal goal of keeping global temperature rise to less than 2 degrees Celsius above pre-industrial levels (while aiming for 1.5 degrees Celsius) to avoid the worst impacts of climate change.

Consequently, a key result of the Paris Agreement negotiations was the establishment of an enhanced transparency framework (ETF) for tracking and reporting the progress of existing and future country commitments, with built-in flexibility included for non-Annex I Parties. For this reason, the Capacity-building Initiative for Transparency (CBIT) was created to help strengthen the institutional and technical capacities of non-Annex I countries to meet the enhanced transparency requirements defined in Article 13 of the Paris Agreement.

Forests play a fundamental and multi-functional role in meeting these global objectives of the Paris Agreement. They contribute significantly to climate change mitigation through their carbon sink and carbon storage functions; they reduce vulnerabilities and enhance the capacity of people and ecosystems to adapt to climate change and climate variability, as well as the negative associated impacts which are becoming increasingly evident in many parts of the world.

In order to support the capacity development of countries, to promote environmental integrity, transparency, accuracy, completeness, comparability and consistency of forest data, a new global CBIT project was launched at the end of 2019.

**“Building global capacity to increase transparency in the forest sector (CBIT-Forest)”** is a project led by the Food and Agriculture Organization of the United Nations (FAO) and financed by the Capacity-building Initiative for Transparency (CBIT) trust fund of the Global Environment Facility (GEF) with a lifespan of two and a half years.

The global project strengthened the institutional and technical capacities of developing countries to collect, analyze and disseminate forest-related data. It supported countries in meeting the ETF requirements of the Paris Agreement and contributed with information necessary to track progress related to implementing and achieving their NDCs.

# Activities and impact



This coordinated global and national effort led by the CBIT-Forest project has met its above-mentioned objectives through three main components related to the collection, analysis and dissemination of forest-related data. These components had the scope of:



**Boosting countries' institutional capacity** by scaling up knowledge exchanges and raising awareness of the importance of forest-related data;



**Increasing countries' technical capacity:** on data collection, analysis and dissemination of forest-related data; and



**Enhancing knowledge sharing** so as to improve coordination and cooperation.

The project targeted an existing global network of National Correspondents for the Global Forest Resources Assessment (FRA) 2020 from at least 187 countries and territories. In addition, free flow and sharing of knowledge and information was promoted through the already existing knowledge networks, including the CBIT Coordination Platform and the Global Forest Observations Initiative (GFOI).

## Key partners

The project has been implemented through FAO's Global Forest Resources Assessment (FRA) and National Forest Monitoring (NFM) teams, working closely with national institutions and other partners such as: United Nations Framework Convention on Climate Change (UNFCCC), Global Forest Observations Initiative (GFOI), Initiative for Climate Action Transparency (ICAT), United Nations Environment Programme (UNEP), UNEP DTU, United Nations Development Programme (UNDP) among others.

## Lesson learned



**Rocío Córdor**

Forestry Officer, CBIT-Forest Project Coordinator, National Forest Monitoring Team, Forestry Division, FAO

*“ The project operated entirely during the Covid-19 pandemic, which necessitated a capacity building and implementation strategy paradigm shift away from in-country to virtual support. Despite initial apprehension, the results of this virtual shift have, interestingly, been widely positive according to colleagues, particularly in Latin America, as it has made capacity building available to everyone, with internet access, around the globe - as indicated by the many more and new people that joined and the greater regional representation achieved in online events; and it has enabled closer relationships with government and other partners. It also enabled fruitful dialogue, between FAO national/regional staff across regions, on technical issues, an aspect that has not been strong in previous global projects. ”*

# CBIT-Forest lessons learned: global

## Open data platform on forests

### Global Forest Resources Assessment Platform

With the support of the CBIT-Forest project, FAO has unveiled the language adaptations of the [Global Forest Resources Assessment Platform](#), an innovative open data platform on forests. Launched in English in July 2020, and recently translated into Arabic, Chinese, French, Spanish and Russian, the platform aims to bolster global efforts to tackle climate change, halt deforestation and increase sustainable forest management.

It is operational with an open-access dissemination module with the following functionalities: (a) visualization of all data reported by individual countries; (b) download of individual reporting tables in csv format; (c) download of statistical summaries at regional and global levels as well as for custom groupings in a non-proprietary spreadsheet format; and (d) bulk download for all data. As of January 2022, the platform had recorded over 53 000 views.



## Lesson learned

### Anssi Pekkarinen

Senior Forestry Officer, FRA Team Leader, Forestry Division, FAO



“ Platforms like FRA 2020 are of crucial importance to everyone who would like to know the state and the extent of the world’s forests. Making the platform available in different languages was greatly appreciated by our stakeholders and partners and enabled much greater reach. Translation is a courier for the transmission of knowledge and is essential for sharing data in an easy-to-access manner. ”



Global



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## Lesson learned

### Javier Garcia-Perez

National Forest Inventory Analyst, National Forest Monitoring Team, Forestry Division, FAO



“ During the implementation of the project, we noted that the expected tradeoffs between the interests of data users and data producers generate different definitions along a gradient of what transparency means. To users, transparency is largely defined by the widespread probabilities a dataset has to be utilized, while producers mostly aim to restrict disclosure of data to protect privacy and confidentiality, while ensuring a minimum data disclosure is warranted. ”

### Food and Agriculture Microdata (FAM) Catalogue

Open access to global forest data is critical for saving the world's forest systems. Integrated approaches to achieve sustainable data openness must involve legal assurances, shared ethics, innovative funding schemes and capacity development. FAO's [Food and Agriculture Microdata](#) (FAM) Catalogue provides an inventory of datasets collected through farm and household surveys containing information related to agriculture, food security and nutrition. The FAM catalogue is populated by datasets that are collected directly by FAO and datasets whose collection is partially supported by FAO. Its aim is to be a one-stop-shop containing metadata on all agricultural censuses and surveys that are publically available, as well as provide direct access and/or links to the microdata.

Open data for interpretation and dissemination is a resource that needs to be carefully curated to support leaders in making informed decisions that also share consensus from the public.

# What **lessons** forest monitoring practitioners can take from **open data**?

**1**

## **Sharing openly can provide valuable time to build climate resilience.**

Improved data availability combined with transparency can catalyze more collaborative solutions to the climate crisis that could equally buy some precious time beyond the target dates set by the Paris Agreement and the 2030 Agenda.

**2**

## **Climate policies need up-to-date and integrated information.**

Data sets can be shared at unprecedented speed thanks to the recent developments in Big Data and Machine Learning technologies, which are currently being generally adopted in forestry and environmental fields. Frequent and integrated forest data is equally beneficial as it is likely to enhance public engagement and collaboration on relevant solutions for forests.

**3**

## **Public money means public information.**

National forest data is primarily collected through taxpayer finances, either through national or international cooperation funds. Greater public financing of large-scale data collection and sharing ultimately means greater information available to the public, enhanced public trust and greater opportunities for investors and researchers.

4

## Overcoming obstacles to sharing.

Open forest data can accelerate decision processes but can also introduce vulnerabilities. Thus, there is often initial reluctance by countries to share forest data motivated by fears of illegal logging or simply losing control of their data. Countries need more incentives to transparency and donors could play a role along.

5

## A lack of an initial data-hosting infrastructure is also often a deterrent in countries to open data.

Country-based IT technicians (and supervisors) should receive capacity building for developing and maintaining these platforms independently.

6

## Institutional, forest and legal expertise.

Comprehensive legal arrangements, built upon trust and continuous support will greatly contribute to the creation of clear, well-structured open and transparent sharing of forest data - particularly in circumstances where sensitive data disclosure policies are involved. For more information check this information note:

[www.fao.org/3/cb3759en/cb3759en.pdf](http://www.fao.org/3/cb3759en/cb3759en.pdf)

# Virtual knowledge sharing at the core of the project

## Massive open online course “Forests and transparency under the Paris Agreement”

Three editions of the Massive open online course (MOOC) “Forests and transparency under the Paris Agreement” have been developed under the CBIT-Forest project. This course explored the connections between the enhanced transparency framework of the Paris Agreement and the collection, analysis and dissemination of forest data. It was organized into four modules – an interactive online lesson, supporting materials, a live forum and finally a short quiz. Participants also had the chance to interact with experts and participate in two live webinars. Delivered in three languages ([English](#), [Spanish](#), [French](#)), the three editions of the MOOC engaged nearly 2 000 forest and climate change professionals and students from around the world. At the end of the course, participants did an online test to retrieve a digital badge, and a survey to learn about their experience. The format of the MOOC allowed professionals from different organizations and different countries to start a dialogue and promote knowledge sharing.

## Global webinars

The CBIT-Forest project organized 16 global webinars throughout the project’s lifespan, 8 of which developed

for the three editions of the MOOC ([2020](#) and [2021](#)). The global webinars were designed to share knowledge related to open and transparent forest data and promote dialogue among forestry and climate change professionals, as well as inform them about the project’s latest updates and steps forward. Government representatives from various countries joined these webinars, including from Bangladesh, Costa Rica, Chile, Democratic Republic of the Congo, Ghana and Papua New Guinea, to share case studies on forests and transparency also developed under the project. Additional countries have also shared their experience with the regions, including Ecuador, Colombia, Guatemala, Italy, Mexico, Liberia and Uganda.

## eLearning course

The eLearning course entitled “Forests and transparency under the Paris Agreement” was developed by the CBIT-Forest project, and, similar to the MOOC, the self-paced course explains the importance of forest data for meeting the requirements of the ETF. Unlike the MOOC, participants can start this e-learning course at any time. After completing the course’s final exam, participants are granted a digital badge certification. The course is available in [English](#), [Spanish](#), [French](#), [Arabic](#), [Chinese](#) and [Russian](#) languages.



digital badge



1 554 learners



## Lesson learned

**Emily Donegan**



NFI Programme support specialist, National Forest Monitoring Team,  
Forestry Division, FAO

*“ The sudden shift to virtual implementation necessitated by COVID-19 posed challenges, but also provided opportunities. With these new modalities, the project was able to reach audiences that otherwise would be difficult or even impossible to reach. Closer relationships were developed with government, innovative capacity building approaches were explored that were positively received and many more people were able to be reached at many levels – in webinars, in the courses and in the national trainings. We have also learned that the webinar format, as it currently is, is not sufficient: webinars need to be more interactive and practical, engagement needs to be strategised and managed, as well as deepened through follow-up activities. Innovative approaches need to be explored. ”*

## The national forest monitoring system (NFMS) assessment tool

The tool aims to assist countries in carrying out a comprehensive capacity assessment of forest monitoring across three complementary themes – institutional arrangements, measurement and estimation, and reporting and verification. Free and accessible in six United Nations languages (English, Spanish, French, Arabic, Chinese and Russian), the tool has been tested in pilot countries (Côte d'Ivoire, Guatemala, Honduras, Lao People's Democratic Republic, Thailand and Uganda) to plan project activities and used also in other countries, such as Costa Rica, Mexico and Ecuador. Read the tool's Quick Guidance document in [English](#), [Spanish](#), [French](#), [Arabic](#), [Chinese](#) and [Russian](#).

## NFI eLearning modules

FAO, with financial support from the CBIT-Forest project, developed a series of training modules on the topic of National Forest Inventories (NFIs). These nine modules built off the [Voluntary Guidelines on National Forest Monitoring](#) and were created to make learning about NFIs easier and more accessible than ever before, as they are available online, for free, to anyone and at any time. They provide a comprehensive overview of the key elements of an NFI and a general understanding of the implementation process.

Access the modules [here](#).

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## Lesson learned

Rebecca Tavani



Forestry Officer, National Forest Monitoring Team, Forestry Division, FAO

“ The main strength of CBIT Forest, and one that sets it apart from other projects that have come and gone, is that it has served as vital connective tissue between existing initiatives within the FAO Forestry Division and beyond. Many projects get developed in a vacuum and don't actually focus on strengthening existing programs, but rather invent something new, which can sometimes inadvertently burden or overstretch colleagues. CBIT instead allowed us to deepen and strengthen our existing workstreams and also allowed us to work on linkages between those workstreams. ”



## Lesson learned

**Anatoli Poultouchidou**



Greenhouse Gas Inventory, National Forest Monitoring Team, Forestry Division, FAO

*“The six country case studies available in English, French and Spanish were developed with and for professionals and officers working in the forest, land use and climate sectors. The case studies aimed at facilitating discussions among governments and other stakeholders to mutually learn from sharing concrete experiences, best practices and challenges with regard to the establishment, operation and sustainability of a robust national forest monitoring system.”*

### Developing and sharing case studies

A major component of the CBIT-Forest project is knowledge sharing, which is why identifying, documenting and disseminating case studies on forests and transparency, from countries establishing national forest monitoring systems (NFMS), is so important. Such case studies can serve as guides for other countries just beginning these processes or also for those that want to improve and learn more. The [case studies](#) from Bangladesh, Chile, Costa Rica, the Democratic Republic of the Congo, Ghana, and Papua New Guinea as an effective tool for training and knowledge sharing.

These country case studies on successful transparency-related activities were developed and used widely throughout the MOOCs and webinars as a tool to demonstrate good ETF practices in different country scenarios.

Building upon existing efforts and lessons learned, these studies highlighted the results, success factors, challenges, replicability and upscaling potential of current approaches within the framework of enhanced transparency.

# CBIT-Forest lessons learned: regional

Regional



## Connecting regional forest reporting actors

The CBIT-Forest project was successful in running and facilitating a series of dialogues to strengthen forest-related reporting through improved consistency and transparency. Organized in collaboration with United Nations Framework Convention on Climate Change (UNFCCC), the activities were built off of and organized within the framework of the most important forest data networks, including the FAO's Global Forest Resources Assessment (FRA) National Correspondents, the Sustainable Development Goals (SDG) and UNFCCC National Focal Points. An important step in this strengthening process was to raise awareness about the reporting process, its modalities, the methodology, and the linkages with other reporting processes. More about this process can be found [here](#).

### Latin America

11 and 23 March 2021

Belize, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua and Panama.

### Western and Central Africa

11 and 23 March 2021

Benin, Burkina Faso, Cameroon, Central African Republic, Congo, Côte d'Ivoire, Democratic Republic of the Congo, Gabon, Mali, Niger and Senegal.

### Southeast Asia

4 and 16 March 2021

Bangladesh, Cambodia, Indonesia, Lao People's Democratic Republic, Malaysia, Myanmar, Philippines, Sri Lanka, Thailand and Viet Nam.



## Lesson learned

### Carla Ramirez

NFI expert, National Forest Monitoring Team, Forestry Division, FAO



*“In the last 20 years, Latin America and the Caribbean countries have substantially increased their capacities to implement continuous national forest inventories. Working with the experts of this region is pleasant since the level of institutional commitment and professional capacity allowed to reach the first publication of the region that shows the quality and competence of Latinamerican and the Caribbean countries in data collection from the field on the state of the forests ecosystems for national and international reporting.”*

## Supporting the harmonisation of National Forest inventories in Latin America

Latin America's and the Caribbean National Forest Inventory network represents 21 countries (Argentina, Bahamas, Belize, Brazil, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, French Guyana, Guadeloupe and Martinique, Honduras, Jamaica, Mexico, Nicaragua, Panama, Peru, Puerto Rico, and the Virgin Islands of the States United States, Dominican Republic, Suriname, and Uruguay) with the scope of adopting sharing knowledge and experience exchanges of countries as a tool to harmonize national forest inventories (NFIs). The participating countries highlighted the importance of harmonizing various NFI elements to obtain comparable data, reduce ambiguity and improve the transparency of forest information for effective national, regional and international forest-related reporting.

In addition, the project supported the preparation and launch of the [English](#) and [Spanish](#) versions of the state-of-the art book “National Forest Inventories of Latin America and the Caribbean: Towards the harmonization of forest information”. The English version is currently being developed.

# CBIT-Forest lessons learned: **national**

## Brazil



Brazil has **496.6 Mha** of forests, which represents **59.4 percent** of its total territory.

## Achievements and lessons learned

The National Forest Inventory (NFI) is one of the main surveys carried out by the federal government to produce information on Brazilian forest resources. The Brazilian NFI carries out field data collection in natural and planted forests including the collection of botanical and soil samples, the measurement of trees and interviews with residents in the vicinity. This reflects how the quality and conditions of forests are assessed.

Under the CBIT-Forest project, Brazil sought to use a remote sensing sampling-based approach to improve the Brazilian NFI and ensure data was available and accessible [online](#) throughout the process. This approach was carried out through different phases, as reported below:

- ▶ methodological definition and set up the Collect Earth Online (CEO) platform for data collection in the NFI conglomerates were developed; and
- ▶ a pilot study with data collection at state level was performed and the results were analyzed.



## Brazil and FAO will continue to collaborate to:

- perform CEO data collection at a national level of the Brazilian NFI conglomerates and define the strategy for sharing all data online; and
- disseminate and share main results.





# Côte d'Ivoire



Côte d'Ivoire has **2.8 Mha** of forests, which represents **8.9 percent** of its total territory.

## Achievements and lessons learned

Côte d'Ivoire has identified opportunities for implementation, improvement and harmonisation of different components of its NFMS. This exercise is crucial as there are several forestry projects that are underway at different stages of implementation: a national forest inventory, a soil monitoring portal and several initiatives in the private sector, particularly aimed at the cocoa sector, such as the PROMIRE project (Promoting zero-deforestation cocoa production for reducing emissions in Côte d'Ivoire) and others.

Under the CBIT-Forest project, various in-depth discussions and assessment exercises were held with NFMS stakeholders. In addition, the NFMS assessment tool helped identify the most urgent opportunities for their effective implementation, which cover:

- ▶ Theoretical principles of national forest monitoring: how to structure an NFMS for Côte d'Ivoire through the use of an institutional and methodological approach including, fields of application for improving transparency.
- ▶ Impact study to analyse who the users of the various NFMS results are and for which purposes the results are used.
- ▶ Support for the development of data and information archiving and sharing agreements. This urgency focuses on the need for the development of a long-term plan regarding the storage and security of forest data that has been collected, processed and reported, as well as for the documentation of metadata and the updating of operational systems.
- ▶ Report and verification: support for the development of a communication and knowledge sharing system between actors and civil society, both in the country and across the region.



## Côte d'Ivoire and FAO will continue to collaborate to:

- updating the forest reference level, including good and more accurate emissions factors and activity data; and
- supporting inter-institutional discussions on the implementation of the country's new forest reference level.

# Guatemala



Guatemala has **3.5 Mha** of forests, which represents **32.9 percent** of its total territory.

## Achievements and lessons learned

In Guatemala, the CBIT-Forest project has supported the country in coordination with the project “Generation and Preparation of information for the formulation of financing proposals for the AFOLU sector in Guatemala” funded by the Green Climate Fund.

Under the latter project, the country has identified gaps and understood the need to create an action plan aimed at enhancing forest and land-use change data collection, processing and analysis. Furthermore, the country has strengthened their institutional arrangements and technical tools to enable sustainability and replicability of results.

In addition, with CBIT-Forest support, the country has created a metadata and microdata repository of national forest inventory taking into account the time period from 2002 to 2003. The [metadata](#) is available on FAO’s Food and Agriculture microdata catalogue (FAM), which is linked to the microdata hosted on the National Forest Information System of Guatemala (SIFGUA, in Spanish).

This support is allowing the country to increase the use of the data in a transparent manner to boost actions on improving forest ecosystems and reducing the impact of climate change.

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## Guatemala and FAO will continue to collaborate to:

- implementing the recommendation to continue the institutional arrangements to strengthen the National Climate Change System;
- promoting and using the new sources for the AFOLU-MRV system of Guatemala, such as various tools and training modules; and
- collaborating with the National Forest Institute on the collection of NFI Microdata user’s feedback and requirements to improve the next NFI cycle and the microdata repository.



Honduras has **6.4 Mha** of forests, which represents **56.8 percent** of its total territory.

## Achievements and lessons learned

In Honduras, the CBIT-Forest project supported the government in developing institutional regulations and legal protocols to develop the information system for data exchange. The work is taking place in close collaboration with the Forest Conservation Institute (ICF: Instituto de Conservación Forestal). Under the project, the country has identified various elements contained in the forest legal framework on access to information related to environmental and forestry issues. These elements were analyzed within the ICF to further clarify the existing regulations, needs and gaps in data sharing between relevant institutions, as well as with users in the forestry sector, in particular, related to:

- ▶ the access rights and categories of actors that can access forest information,
- ▶ and the existing legislation on forests data types and uses (identification of barriers).

In addition, to strengthen the reinforced transparency framework for the National Forest Inventory (NFI) data and secure data storage, Honduras has shown a strong willingness to share the microdata from the 1st and 2nd cycle of the NFI. For the latter, the ICF and FAO team used the FAO Decision Tool for Forest Data Disclosure, which weighs the sensitivity and usefulness of each NFI variable to facilitate decisions on anonymization. The results have been generated and validated by the ICF.



## Honduras and FAO will continue to collaborate to:

- securing the historical memory of the data of the National Forest Inventory and ensuring its sustainability, as well as the archiving and construction of metadata and the requirements for the microdata;
- finalizing the development of the License to Redistribute Dataset; and
- identifying institutional arrangements and legal protocols to develop the information system for data exchange.

# Lao People's Democratic Republic



Lao People's Democratic Republic has **16.6 Mha** of forests, which represents **71.9 percent** of its total territory.

## Achievements and lessons learned

Under the CBIT-Forest project, Lao People's Democratic Republic has been working with FAO to develop its capacity for forest monitoring activities. This was an important step on the country's journey to combat deforestation and climate change.

To complement the country's well-established NFMS, the CBIT-Forest project helped increase the capacity of the Forest Inventory and Planning Division (FIPD) of the Department of Forestry to analyze and share NFI data.

In 2021, a series of data analysis trainings were conducted at the National University of Lao's Faculty of Forest Science. The participants from FIPD were taught how to use R (a free and open-source statistical programming language) to cross-check and analyze raw forest inventory data. Collaboration with the Faculty of Forest Sciences of the National University of Laos allowed for the training to be delivered face-to-face, in Lao language, with online backstopping from FAO experts. Through this training evaluation, a series of topics of interest was gathered, some of which will be integrated into the next training session. In addition, the CBIT-Forest project provided support to disseminate NFI metadata and results, through an [information note](#) and publication of the NFI metadata. These steps will help improve transparency in the methodology for data collection and how it is used to estimate forest resources in the country



## Lao People's Democratic Republic and FAO will continue to collaborate to:

- improving data analysis skills for all carbon pools;
- connecting NFI with evidence-based policy/decision-making;
- periodically disseminating forest data to contribute with transparency at national level; and
- sharing and linking NFI results to improve and increase scientific bases for harvest/trade in rosewood under the Mekong project.

# Thailand



Thailand has **19.9 Mha** of forests, which represents **38.9 percent** of its total territory.

## Achievements and lessons learned

In Thailand, one of CBIT-Forest's pilot countries in Southeast Asia, the project has been building on support provided by FAO under the Forest Carbon Partnership Facility (FCPF). FCPF-funded activities have become a strong basis for the CBIT-Forest project's actions to further contribute to the improvement of Thailand's forest data transparency and sustainability. Since 2020, under CBIT-Forest, FAO has supported the development of Thailand's National Forest Monitoring System (NFMS) roadmap. Furthermore, the NFMS assessment tool developed under CBIT-Forest, helped Thailand identify capacity gaps and weaknesses and address its NFMS needs in a targeted manner.

The assessment of Thailand's NFMS was done at a technical workshop that took place in 2020. At the event, more than 40 participants from key government and civil organizations provided unique insight on a broad range of key forestry topics, from institutionalisation to sampling design, data collection, data management and dissemination of the results.

In addition, in 2021, CBIT-Forest supported capacity development events related to data analysis and fieldwork, efforts to make NFI metadata publicly available and updating the NFMS documentation.



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## Thailand and FAO will continue to collaborate to:

- including the forestry sector in the NDC of Thailand; and
- improving the National forest monitoring system of Thailand.



# Uganda



Uganda has **2.3 Mha** of forests, which represents **11.7 percent** of its total territory.

## Achievements and lessons learned

In Uganda, CBIT-Forest activities included a needs and gaps assessment of the NFMS, definition of a work plan, which implemented discussion workshops, capacity building activities and the preparation of reports, all aimed at providing the NFMS with functionalities to improve its effectiveness and increase its transparency in regard to forest data.

An important result of this process is that Uganda is the first tropical country to make the metadata, microdata and relevant documentation of its National Forest Inventory (namely NBS - National Biomass Survey) openly available, at the level of the single tree.

This availability of NBS data through the FAO Food and Agriculture Microdata ([FAM](#)) catalogue which, since 2021, is hosting a special section entirely dedicated to forest microdata. Uganda becomes the first tropical country to make available its National Forest Inventory (read more: [press release](#)).

The process has seen a strong interest from the Ugandan forestry authorities towards transparency in the dissemination of forestry data. The data is now accessible to all for monitoring and evaluation, tailoring programs and interventions, and monitoring important trends. In addition, disseminating and promoting user access to micro datasets maximizes their value for evidence-based decision making by enabling open research and analysis.



## Uganda and FAO will continue to collaborate to:

- discuss and adopt data sharing protocols;
- prepare the concept note and the Green Climate Fund proposal;
- prepare an updated version of the Forest Reference Level; and
- prepare an impact assessment tool to understand who needs forest data and how these data are used.

# The way forward

Preparing to upscale the project further, the CBIT-Forest team is getting ready to collect and apply all the recommendations, and lessons learned, gathered during the project's implementation. Specifically, the project will keep:

- **Enhancing quality, timeliness, accessibility and usability of global forest-related data in support of the transparency requirements of the Paris Agreement,**

- **developing capacities to work towards open and transparent data in pilot countries and at the global level through innovative global composite learning programmes combining virtual and in-person training,**

- **sharing knowledge as the international momentum builds surrounding forests and transparency,**

- **cementing networks regionally and with new partners such as academia to ensure sustainability and transparency of forest reporting.**

# Contacts

CBIT-Forest@fao.org

Food and Agriculture Organization of the United Nations  
Viale delle Terme di Caracalla  
00153 Rome, Italy

The online version of this publication is available at [\[link\]](#)

This publication was developed under the project “Building global capacity to increase transparency in the forest sector (CBIT-Forest)” funded by the Capacity-building Initiative for Transparency (CBIT) trust fund of the Global Environment Facility (GEF).