

# TROPICAL FOREST UPDATE

Promoting the sustainable development and conservation of tropical forests

Vol. 34 Issue 2 2025

The road to  
long-term  
sustainability  
is paved with  
knowledge

Amazon timber database  
Forest certification  
Communicating tropical forests  
Mahogany trees in Peru  
Peatlands in Sumatra  
Myanmar's certification



# Contents

## 3 Editorial

### 4 Defining Amazon timber

The unified MADERA dataset of Amazonian timber species can support sustainable forest management and biodiversity conservation across the region

### 10 Forest certification at a crossroads

Growing pressures on the forestry industry raise fundamental questions about the shape and purpose of certification schemes

### 14 Sharing the love for tropical forests

Communicating the importance of tropical forests to the general public is central to ITTO's outreach activities in its host country, Japan

### 18 Migrating caoba to Peru's arid zones

An ITTO project reveals the potential of plantations of big-leaf mahogany for both commercial production and forest landscape restoration

### 22 The economic and personal value of peatlands

An ITTO Fellow returned to his roots to explore the economic value of Indonesia's carbon-rich peatlands

### 28 Certifying sustainability in Myanmar

An ITTO project has advanced the country's certification systems and its ability to assure the legality and sustainability of its timber

### 32 Tropical and topical

### 34 Recent editions

### 35 Events

### 35 ITTO meetings

ISSN 1022-5439

**Editor** Paula Sarigumba  
**Consulting editor** Stephen Graham  
**Editorial assistant** Mitch St.Hilaire-McAnally  
**Secretarial assistant** Kanako Ishii  
**Design** Hannah Tagle (Philippines)  
**Printing/distribution** INKISH Publishing (Denmark)

Tropical Forest Update (TFU) is published three times a year in English, French and Spanish by the International Tropical Timber Organization (ITTO). Content does not necessarily reflect the views or policies of ITTO. Articles may be reprinted without charge provided TFU and the author are credited. The editor should be sent a copy of the publication.

Printed on PEFC matte coated paper using vegetable-based soya inks.

TFU is distributed free of charge to over 14 000 individuals and organizations in more than 160 countries. To receive it, send your full address to the editor. Please notify us if you change address. TFU is also available online at [www.itto.int](http://www.itto.int), as well as in Apple's App Store and Google Play.

International Tropical Timber Organization  
5F Pacifico-Yokohama, 1-1-1 Minato Mirai,  
Nishi-ku, Yokohama 220-0012 Japan  
t 81-45-223 1110  
f 81-45-223 1111  
tfu@itto.int  
[www.itto.int](http://www.itto.int)

**Cover image:** The theme of this issue, *The road to long-term sustainability is paved with knowledge*, underscores the vital role of information, capacity building, and collaboration in advancing sustainable tropical forest management. The cover photo of a winding rural road serves as a metaphor for the journey toward sustainability: challenging but navigable with the right knowledge and tools. © ITTO



Educating young people on sustainable forest management is central to ITTO's mission. © Paula Sarigumba/ITTO

## EDITORIAL

Faced with growing evidence of the havoc that climate change and biodiversity loss is wreaking on many parts of our world, pessimists sometimes argue that humanity is simply incapable of the “transformative” change required to ward it off. Human lives are too short, economic interests too entrenched, politicians beset with too many crises for a sustained, multilateral drive to complete the energy transition and put the planet on a path to sustainability.

But that is to ignore a factor that continues to shift the needle toward action and growing confidence that it can bring significant positive change: knowledge of both the problems we face and of existing and emerging solutions.

Generating actionable insights and information on tropical timber and its trade is a core activity for ITTO. Many of the Organization's activities support, for instance, research and data-gathering on sustainable timber production, and the development of transparent information systems to ensure only legal and sustainable timber is exported and imported by its members. Communicating that data, knowledge and understanding to stakeholders including policymakers, businesses, experts and communities is also central to ITTO's mission.

That focus is evident in this edition of Tropical Forest Update. Our authors cover topics ranging from the creation of a pan-Amazon tree species database, to measuring the value that communities in Indonesia place on peatlands, and the challenges facing the forest certification sector.

In our opening article, Ximena Herrera-Alvarez and her colleagues describe how they created a database of Amazonian timber species that overcomes the fragmentation of national datasets and creates a valuable tool for sustainable forest management (SFM) and biodiversity conservation across the region.

Next, ITTO Director of Forest Management Jennifer Conje explains why forest certification—vital for the creation, verification and transparent documentation of sustainable timber supply chains—stands at a crossroads, caught between mounting pressures including the requirements of regulators in import markets, and

the fundamental goal of balancing ecological protection with economic viability while accounting for on-the-ground realities in producer countries.

On-the-ground realities include the degree to which people in consumer as well as producer countries understand the importance of forests, whether at the local, regional or global level. ITTO Communications and Outreach Officer Paula Sarigumba tells how stinging criticism early in her career still drives her efforts to explain the benefits of tropical forests to audiences of all ages and backgrounds, most recently in ITTO's host country, Japan.

The rise of timber plantations, supported by a wave of innovations and scientific advances in silviculture, is helping take some of the heat off overexploited natural forests in the tropics. Jorge Malleux describes how experiments in growing caoba, or big-leaf mahogany, in coastal regions of Peru are showing considerable promise and warrant more investment.

Efforts to counter the conversion or over-use of tropical forests often fail for lack of buy-in from communities, reflecting poor understanding among policymakers or project managers of local people's priorities. ITTO Fellow Mohammad Yunus presents findings from research in his native Indonesia of the economic values that people place on peatlands—key data for anyone engaging with communities on how to tap this fragile ecosystem's resources sustainably.

Finally, Barber Cho details how an ITTO project in Myanmar has helped to strengthen forest certification systems and appeals for greater support and recognition for efforts to build sustainable timber supply chains in this forest-rich country, despite a challenging political context.

In a time of global uncertainty regarding policies on trade, climate change and international cooperation, Mr Cho's message is one we should heed: despite the challenges, sustainability remains the most viable long-term solution for conserving tropical forests. ITTO will therefore continue on its mission to develop and disseminate the knowledge and solutions that are helping to open and expand this path, for the sake of both people and the natural systems that sustain us.



Rivers shape much of the Amazon's ecosystems. Tiputini River at the Tiputini Biodiversity Station, within Ecuador's Yasuni Biosphere Reserve.  
© Gonzalo Rivas-Torres



# Defining Amazon timber

The unified MADERA dataset of Amazonian timber species can support sustainable forest management and biodiversity conservation across the region

*by Ximena Herrera-Alvarez,<sup>1</sup> Juan A. Blanco,<sup>1</sup> Oliver L. Phillips,<sup>2</sup> Vicente Guadalupe,<sup>3</sup> Leonardo D. Ortega-López,<sup>4</sup> Hans ter Steege,<sup>5,6</sup> and Gonzalo Rivas-Torres<sup>7</sup>*

Tropical forests are the planet's richest storehouse of life, energy and climate-regulating biomass, and none is larger or more influential than the Amazon. Yet the Amazon's capacity to support the global carbon cycle is faltering under the combined weight of hotter droughts, more fires and relentless demand for tropical timber.

---

<sup>1</sup> Universidad Pública de Navarra, Pamplona, Spain (ximena.herrera@unavarra.es)

<sup>2</sup> University of Leeds, United Kingdom

<sup>3</sup> Amazon Cooperation Treaty Organization, Brasília, Brazil

<sup>4</sup> Universidad Regional Amazónica Ikiam, Tena, Ecuador

<sup>5</sup> Naturalis Biodiversity Center, Leiden, The Netherlands

<sup>6</sup> Utrecht University, The Netherlands

<sup>7</sup> Universidad San Francisco de Quito, Ecuador

The absence of a harmonized list of Amazonian timber species across the countries of the region along with outdated taxonomic frameworks, disparate national criteria, and the inaccessibility of historical data pose a substantial challenge to sustainable forest management (SFM) and biodiversity conservation. Each country has developed its own species list based on varying definitions and data sources, leading to taxonomic inconsistencies, duplication of species under different names, and limited cross-border comparability. This fragmentation hinders the development of a coherent, region-wide understanding of species' conservation status, commercial use, and ecological pressures. Furthermore, the lack of a standardized and openly accessible taxonomy represents a governance-related threat, as it impedes the coordination necessary to regulate trade, combat illegal logging, and implement effective, science-based forest policies throughout the Amazon basin.

## Bridging data and governance

To close the gap between scattered inventories and actionable policy, the MADERA dataset was created in 2023 with an updated version released in 2024.<sup>8</sup> This online resource offers a unified framework that combines clean taxonomy, tree species population data, trade relevance, and estimates of present-to-future risks for more data-rich species. This dataset provides Amazon nations with some of the data tools needed to create a comprehensive dashboard for sustainable, legal and climate-resilient forestry. Thus, MADERA helps Amazonian countries to manage their forests without relying on fragmented, outdated and mixed information.

## Creating MADERA

To produce the MADERA dataset, we followed a seven-step methodological framework to address the challenges of inconsistent taxonomies, fragmented national datasets, and limited data accessibility (Table 1).

**Table 1: The process followed to compile the MADERA dataset**

No.	Step	What was done	Why it matters
1	Official sweep	Nine forest ministries from the Amazonian countries and two regional references supplied timber species names (> 2000 raw entries)	Aligns science with national information
2	Taxonomic standardization	TNRS taxonomic tool matched names according to POWO-Kew taxonomy → 1435 accepted species	Removes typos and synonyms, creates a standardized language
3	Amazonian filter	Excluded species with either < 10 cm DBH or > 1000 masl in the Amazon basin <sup>9</sup> → 1136 lowland timber trees	Focuses analysis on the logged stratum for the Amazon basin
4	Population data	Integrated plot data from the Amazon Tree Diversity Network, for authoritative records of abundance and hyperdominance <sup>10</sup>	Links quotas to real forest structure and composition
5	Trade flags	Overlaid 60 “commercial” and 925 “lesser used” species identified by ITTO <sup>11</sup> and CITES <sup>12</sup>	Shows where markets concentrate and where they could diversify
6	Conservation status	Added IUCN Red List categories data (up to 2023) <sup>13</sup>	Exposes regulatory blind spots
7	Future scenarios data	Added 2050 climate change and deforestation scenarios for each species <sup>14</sup>	Puts risk on the timeline decision-makers use

(Abbreviations: TNRS = Taxonomic Name Resolution Service; POWO = Plants of the World Online; DBH = diameter at breast height; masl = meters above sea level; CITES = Convention on International Trade in Endangered Species of Wild Fauna and Flora; IUCN = International Union for Conservation of Nature)

<sup>8</sup> <https://esajournals.onlinelibrary.wiley.com/doi/10.1002/ecy.4135> and <https://zenodo.org/records/13358610>.

<sup>9</sup> <https://doi.org/10.1073/pnas.1706756114>

<sup>10</sup> <https://doi.org/10.1038/s41598-020-66686-3>, <https://doi.org/10.1126/science.1243092>, and <https://doi.org/10.1126/sciadv.1500936>

<sup>11</sup> ITTO. 2014. Commercial species and lesser used species. Unpublished database. Yokohama, Japan

<sup>12</sup> <https://trade.cites.org/>

<sup>13</sup> <https://www.iucnredlist.org>

<sup>14</sup> <https://doi.org/10.1038/s41558-019-0500-2>

The process began with the systematic collection of official lists of timber species from governmental forestry institutions across the nine Amazonian nations (Bolivia, Brazil, Colombia, Ecuador, French Guiana, Guyana, Peru, Suriname, and Venezuela). Scientific literature was also consulted to validate and expand the species list. This approach provided a more robust and representative inventory, while also highlighting the uneven availability and accessibility of data across the region.

The second step addressed inconsistencies in species nomenclature and outdated botanical classifications. All collected species names were validated and standardized using the Taxonomic Name Resolution Service (TNRS) R package.<sup>15</sup> TNRS cross-references submitted names with well-established taxonomic databases<sup>16</sup> to update synonyms and correct misspellings, ensuring consistency with current botanical standards. This step was crucial for enabling cross-country comparisons and minimizing duplication due to differing naming conventions.

In the next step, the unified species pool was filtered using the dplyr R package to include only native, free-standing woody plants of the Amazon lowland rainforest biome. Species restricted to montane forests, non-woody life forms, and those not reaching a minimum diameter at breast height (DBH) of 10 cm were excluded. This ensured that the final list was ecologically relevant and focused on species within the Amazon.

To evaluate the ecological importance and abundance of each species, occurrence data from 1946 forest inventory plots submitted to the Amazon Tree Diversity Network<sup>17</sup> were incorporated. Species that accounted for a disproportionately large share of individual trees in a given plot were referred to as “hyperdominant” species. These species were flagged, as they play a central role in forest structure and ecosystem function.

Then, we integrated commercial and regulatory information to understand which species are being actively harvested and traded. The dataset was enriched with records from the ITTO, which provided insight into species of recognized commercial value in global and regional markets. Additionally, species listed under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) were identified, helping to align the dataset with international regulatory frameworks. This step enhanced the relevance of the dataset for trade governance.

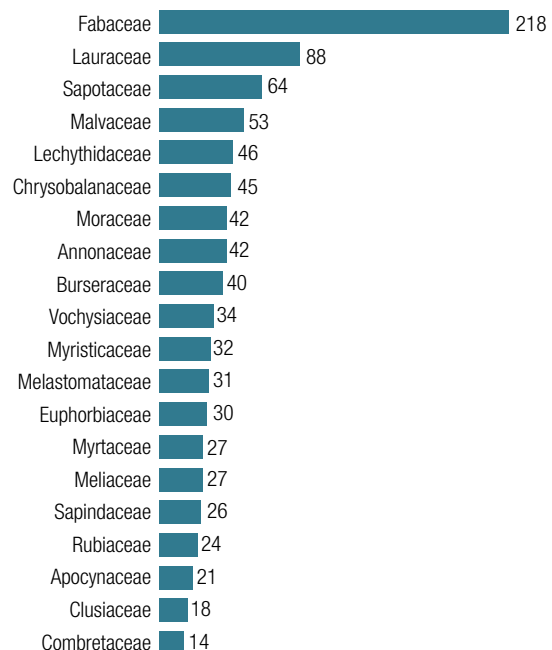
In the next step, each species was cross-referenced with the IUCN Red List categories up to 2023 to retrieve its official conservation status. This enabled identification of taxa that are currently considered vulnerable, endangered, or critically endangered, as well as those categorized as least concern or data deficient. Including this information is essential for aligning forest management practices with global conservation priorities.

Finally, future threats to species survival were assessed using extinction risk projections for the year 2050 under various deforestation and climate change scenarios. These projections were based on existing species distribution models that incorporate climatic and anthropogenic factors.<sup>18</sup> Species flagged as likely to experience significant range contractions or population declines were identified as priorities for conservation and monitoring efforts.

## Status and risks

The resulting MADERA dataset catalogues 1136 accepted timber species, representing 346 genera and 72 botanical families. Most of these species are trees (88.7%), with a smaller proportion comprising shrubs/trees (10.9%) and palms (0.3%). Species richness is unevenly distributed across taxonomic groups. For example, 81% of species richness is concentrated in 20 families, with Fabaceae, Lauraceae, and Sapotaceae being particularly prominent (Figure 1). At the genus level, 31% of the species belong to 20 genera, including *Pouteria*, *Protium*, *Inga*, *Ocotea*, and *Licania*. Similarly, the abundance of individuals is highly skewed: 20 families account for over 87% of all individuals, suggesting both taxonomic and ecological dominance.

**Figure 1: The 20 most species-rich families of timber tree identified in lowland Amazon rain forests**



<sup>15</sup> <https://github.com/EnquistLab/RTNRS>

<sup>16</sup> For example, Tropicos ([www.tropicos.org/home](http://www.tropicos.org/home)) and Kew ([www.kew.org/science/collections-and-resources/data-and-digital/names-and-taxonomy](http://www.kew.org/science/collections-and-resources/data-and-digital/names-and-taxonomy))

<sup>17</sup> <https://sites.google.com/naturalis.nl/amazon-tree-diversity-network/homepage?authuser=0>

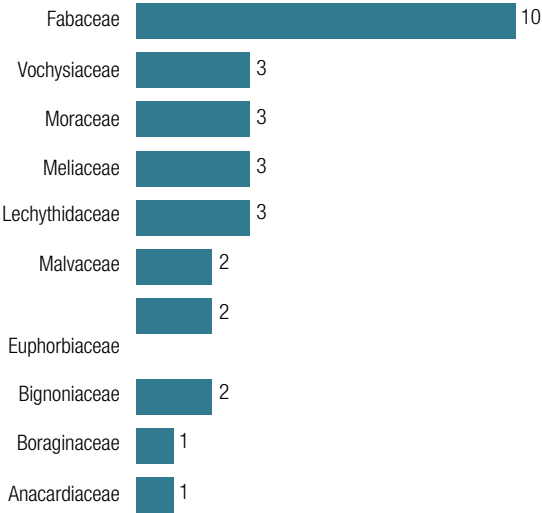
<sup>18</sup> <https://doi.org/10.1038/s41558-019-0500-2>

The Amazon is characterized by hyperdominance, where a small subset of species accounts for the majority of biomass and individual trees. The dataset identifies 156 hyperdominant species (13.7% of the total) that together represent nearly 59% of the region's total tree abundance. This concentration raises concern on the maintenance of forest structure in the long term. This is because hyperdominant species, though numerous, may be disproportionately affected by selective logging, pests, or climate extremes. Their dominance also implies that degradation or loss could lead to cascading ecosystem effects.

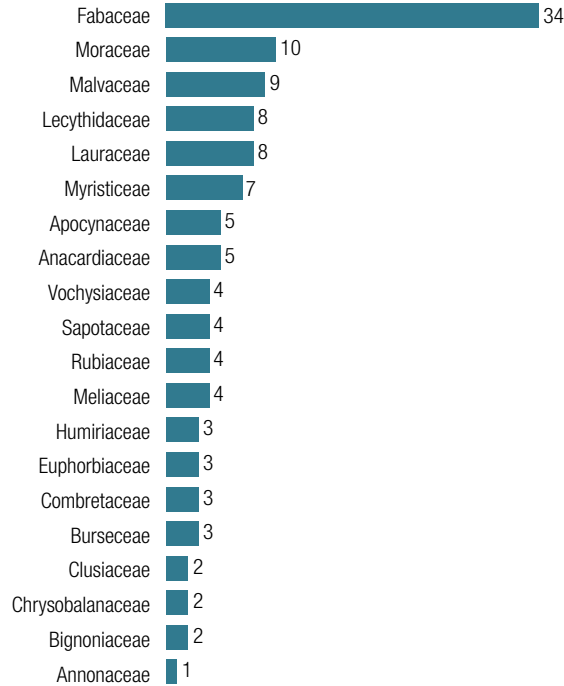
An additional finding was that timber species are not randomly distributed in the Amazon basin. Instead, 66% of timber species occur predominantly in *terra firme* (upland) forests. Smaller proportions are found in flooded forests (*várzea* and *igapó*), white-sand podzols, and swamp ecosystems.

Based on information available from ITTO<sup>11</sup>, out of the 1136 species, 37 are commercially valuable (Figure 2) and 136 lesser-used timber species (Figure 3). These species are disproportionately found in just a few families, with Fabaceae pre-eminent.

**Figure 2: Number of commercial timber species and families in the MADERA dataset**



**Figure 3: Number of lesser-used species and families in the MADERA dataset**



# Information gap

Regarding conservation, the MADERA dataset identified 916 timber species (80.6%) that have been assessed by the IUCN Red List. The majority (73.7%) are currently classified as Least Concern (LC) (Table 2). Only 79 species (7%) are assessed as Vulnerable (VU), Endangered (EN), or Critically Endangered (CR). However, another 220 species (19.4%) remain unassessed. This information gap may represent a significant blind spot for conservation planning, should these species be under active pressure or present in habitats threatened by land-use change.

Only six of the timber species are currently listed in the CITES appendices, and these are in Appendix II, which allows trade under controlled conditions:

- *Cedrela angustifolia* (Meliaceae)
- *Cedrela fissilis* (Meliaceae)
- *Cedrela odorata* (Meliaceae)
- *Dalbergia spruceana* (Fabaceae)
- *Swietenia macrophylla* (Meliaceae)
- *Handroanthus serratifolius* (Bignoniaceae)

<sup>11</sup> <https://doi.org/10.1038/s41558-019-0500-2>

**Table 2: Amazon timber species listed in IUCN Red List categories (up to 2023)**

IUCN Red List categories	Number of species	Percentage
Least Concern	837	73.7
Not evaluated	220	19.4
Vulnerable	31	2.7
Data Deficient	17	1.5
Endangered	12	1.1
Near Threatened	9	0.8
Lower Risk/least concern	5	0.4
Critically Endangered	2	0.2
Lower Risk/near threatened	2	0.2
Lower Risk/conservation dependent	1	0.1
<b>Total</b>	<b>1,136</b>	<b>100</b>

An additional threat to the sustainable management of timber species in the Amazon will likely be related to the advance of climate change effects. Using climate models based on the Representative Concentration Pathways (RCPs) used by the Intergovernmental Panel on Climate Change,<sup>19</sup> our study assessed the vulnerability of Amazonian timber species under two emissions scenarios: RCP 2.6 (low emissions, likely too optimistic given current trends in global carbon emissions) and RCP 8.5 (high emissions, business-as-usual). Our findings using species distribution models indicate that the number of CR and EN species is projected to increase significantly under RCP 8.5 compared to RCP 2.6. However, when climate change scenarios are combined with improved governance deforestation scenarios, risks are somewhat mitigated, indicating the capacity of governance to offset the effects of climate change.



Only a small share of Amazonian tree species are used as timber. Shown here is the stem of an adult *Calycophyllum spruceanum* in the Tambopata National Reserve, Peru. © Oliver L. Phillips



Towering above the forest, this adult *Ceiba pentandra* is part of the diverse canopy that shapes the light and life of the Amazon. Caxiuanã National Forest, Brazil. © Oliver L. Phillips

## Recommendations

The MADERA dataset allows the evaluation of comprehensive and unified information for all timber species in the Amazon basin for the first time. Based on an initial analysis of the data, we suggest the following strategic actions:

- National and regional level assessment of the conservation status of all timber species currently listed as threatened by IUCN.
- Urgent evaluation of the 220 species that remain unassessed.
- Policy review and potential inclusion of commercially threatened species not yet listed under CITES.
- Integration of species vulnerability data under combined climate-deforestation scenarios into national forest management and climate adaptation plans.
- Maintaining the free-to-access, homogenized and shared use of information among all national and international actors to facilitate common goal setting, assessments and collaborative work.

We highly appreciate the willingness of the forest services of each Amazon country to share their information about timber species, facilitated by the generous support of the Amazon Cooperation Treaty Organization – Amazon Regional Observatory. We also acknowledge the information provided by ITTO.

To learn more about this project, please read: Herrera-Alvarez, X., Blanco, J. A., Phillips, O. L., Guadalupe, V., Ortega-López, L. D., ter Steege, H., & Rivas-Torres, G. (2024). First-ever complete list of Amazonian timber tree species. *Ecological Solutions and Evidence*. <https://doi.org/10.1002/bes2.2104>

<sup>19</sup> <https://doi.org/10.1017/CBO9781139177245.003>



Forest under certification, managed sustainably to balance environmental conservation, social benefits, and economic viability.  
© PEFC International



# Forest certification at a crossroads

Growing pressures on the forestry industry raise fundamental questions about the identity and purpose of certification schemes

*by Jennifer Conje  
Director of Forest Management, ITTO  
(conje@itto.int)*

Earlier this year, I had the opportunity to speak at the 2025 PEFC Forest Forum in Ho Chi Minh City, Viet Nam.<sup>1</sup> This gathering, organized by the Programme for the Endorsement of Forest Certification (PEFC), reaffirmed the crucial role certification plays in promoting sustainable forest management (SFM) and maintaining global supply chain integrity. While we have made considerable strides in ensuring timber legality and sustainability, recent global developments demand a pause, not just to evaluate where we are, but to reflect on where we are heading.

---

<sup>1</sup> <https://www.pefc.org/pefc-forest-forum>



**Certification must not lose sight of its foundational purpose: to support sustainable forest management, balance ecological protection with economic viability, and empower local communities and forest-dependent people.**

© PEFC International



At ITTO, we have long supported forest certification as a key tool in advancing SFM. We do not champion one scheme over another; rather, we uphold the principle that independent, third-party verification and certification remain vital in ensuring that tropical timber comes from legal and responsibly managed sources. But in today's climate—political, economic, and ecological—certification systems face a fundamental question of identity and purpose.

One prevailing theme today is uncertainty. From geopolitical tensions to trade disruptions, the world and global economy continue to feel the aftershocks of major political and trade policy shifts. The impact of such actions extends beyond borders, directly affecting multiple sectors, including forest enterprises in the tropics, where many small and medium-sized enterprises struggle to absorb shocks and have limited ability to engage in forward-looking risk planning.

Uncertainty undermines trade. It stalls investments and paralyzes strategic planning. ITTO's Tropical Timber Market Report,<sup>2</sup> published biweekly, exists precisely to counteract this by improving transparency and helping businesses make informed decisions.

Similarly, certification offers reassurance—a guarantee that products meet sustainability and legality standards. But as we've seen during the COVID-19 pandemic and now amidst the current tariff disputes, diversification and risk mitigation are no longer optional, but are imperative to businesses' long-term survival. For certification systems to remain relevant, they must also evolve.

## Forests to the fore

The climate crisis has reached a sobering milestone: 2024 marked the first year that the average global temperature exceeded 1.5 °C above its pre-industrial level.<sup>3</sup> The withdrawal of the United States of America from the Paris Agreement earlier this year sent ripples of concern through the international climate community. Yet, hope remains, with growing global momentum around Nationally Determined Contributions, forest-climate solutions and programmes by many other actors at the national and sub-national levels.

Notably, the finalization of Article 6 market mechanisms under the Paris Agreement at the COP29 climate conference opens the door to increased climate finance.<sup>4</sup> However, forests still attract less than 3% of global climate funding<sup>5</sup>—a disheartening figure considering their immense mitigation potential contribution. With this year's COP30 in Belém, Brazil, expected to spotlight forests, it is crucial that the role of SFM and harvested wood products be elevated, alongside efforts toward forest conservation and restoration/rehabilitation.

Businesses are also being held to increasingly rigorous climate reporting standards. In Europe, the Corporate Sustainability Reporting Directive will soon require over 50 000 companies (including non-EU enterprises) to disclose their greenhouse gas emissions. This signals a paradigm shift: sustainability credentials are no longer just reputational assets; they are regulatory necessities.

<sup>2</sup> [https://www.itto.int/market\\_information\\_service/](https://www.itto.int/market_information_service/)

<sup>3</sup> <https://climate.copernicus.eu/copernicus-2024-first-year-exceed-15degc-above-pre-industrial-level>

<sup>4</sup> <https://unfccc.int/documents/644797>

<sup>5</sup> <https://openknowledge.fao.org/server/api/core/bitstreams/8f599970-661d-45f5-a598-2ea46ca1605f/content/src/html/climate-finance-flows-forestry.html#a598-2ea46ca1605f>

## Regulatory web

Timber trade is becoming increasingly scrutinized. The listings of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) now regulate nearly 800 tree species, with 2024 alone adding several key tropical species to Appendix II. While certification systems incorporate CITES compliance into their frameworks, the challenge lies in ensuring that mechanisms, such as Non-Detriment Findings (NDFs), are both scientifically robust and implemented effectively. ITTO continues to support member countries through capacity-building workshops, such as the recent NDF training sessions in Latin America and West Africa, and an upcoming one for Asia and the Pacific in the first quarter of 2026.

Biodiversity conservation is another area where certification must evolve. The UN Convention on Biological Diversity 16th Conference of Parties (COP16) emphasized the promotion of the restoration of multifunctional, biodiverse forests, emphasizing a need to diversify and shift away from monoculture plantation approaches. At ITTO, we are currently updating, in cooperation with IUCN, our 2009 guidelines on biodiversity conservation in tropical production forests to reflect new approaches in biodiversity conservation and align with the Kunming-Montreal Global Biodiversity Framework, reaffirming that sustainable production and biodiversity can—and must—coexist.

Then there is the EU Deforestation Regulation (EUDR), which will soon enter into force. While well-intentioned and acknowledging that it has pushed actors along the entire supply chains to a greater level of accountability, the EUDR has generated considerable concern, particularly among producers in the Global South. Its strict and micro-level traceability and due diligence requirements and reporting, though supported in part by tools such as FSC or PEFC's EUDR-aligned system, create significant burdens for forest enterprises and intermediaries, especially those not able to afford the costs of certification or the level of traceability required. Moreover, its definition of forest degradation, rooted in structural change mainly based on forest cover, raises deeper scientific and monitoring questions about the policy's approach.



Jennifer Conje, ITTO's Director of Forest Management, speaks at the PEFC Forest Forum in May 2025. © PEFC International



**With open dialogue and a renewed commitment to sustainability, certification can remain a powerful instrument for our shared future.**

## Certification at a crossroads

Which brings us to a critical reflection: is certification merely a tool for compliance with policies set by consumer markets? Or is it still a mechanism grounded in the science of forestry, adapted through multistakeholder processes and local realities? As regulations proliferate, certification systems risk becoming reactive instruments shaped solely by external market pressures and political forces, rather than proactive science-based, stakeholder-informed frameworks defining what sustainability means in diverse, forested landscapes.

This is not a critique of the EUDR or certification schemes. Rather, it is a call for introspection. Certification must not lose sight of its foundational purpose: to support sustainable forest management, balance ecological protection with economic viability, and empower local communities and forest-dependent people.

Despite these complexities, one truth remains: certification continues to play a vital role in meeting today's growing demand for accountability on greenhouse gas emissions, legality, sustainability, and social equity. As the world grapples with multiple, interlinked crises—ranging from climate change to biodiversity loss to disrupted trade—there is a renewed urgency to ensure that our systems of assurance remain both resilient and credible.

The path forward is not easy. However, with open dialogue, adaptive governance, and a reaffirmed commitment to sustainability, forest certification can continue to be a powerful instrument to help us achieve our shared goals.



熱帯林について知っていること  
ありますか？

How much  
do you know about  
tropical forests?

何百万もの家族、多くの人々が  
熱帯林や周辺に暮らしています。

Millions of families  
around the world live in or near  
tropical forests

家を建ててから、果物やキノコなどの食べ物や飲み  
物も、そして薪まで。  
ともに暮らしています。

東南アジア、中央アフリカ、南米  
を中心に、世界の森林の  
18億ヘクタール

私たちの生活を支える熱帯林と  
生物多様性の大切さを発信し、  
日々の暮らしでの環境にやさしい消費行動の  
実践を呼びかけています！



ITTO x SDGs

環境省  
国際熱帯林機関 (ITTO)



# Sharing the love for tropical forests

Communicating the importance of tropical forests to the general public is central to ITTO's outreach activities in its host country, Japan

by Paula Sarigumba  
ITTO Communications and Outreach Officer  
(sarigumba@itto.int)

"You forestry people are terrible communicators." That stinging remark, made by a journalist during a forestry communication session at an international conference in the Philippines in 2016, has stuck with and motivated the author ever since.

It was a warning that foresters need to craft compelling, engaging messages in order to make a difference—a need that has only grown as forests, including tropical forests, come under increasing pressure from land use change, rising timber demand, and climate change.

ITTO responds to that need through outreach initiatives that raise awareness of the Organization and its mission to promote the sustainable management of tropical forests, including in its host country, Japan.

In partnership with the City of Yokohama, ITTO has been working to connect residents with the forests they depend on, even if those forests are thousands of kilometres away. The goal: help people realize that forests are not distant, abstract spaces, but dynamic, powerful ecosystems that are vital to the quality of urban life.

Forests provide the timber, food, medicine, and biodiversity that support industries and daily life. About 25% of modern medicines come from rainforest plants.<sup>1</sup> Forests help regulate air and water quality, store carbon, and buffer cities against disasters. Yet their value remains invisible to many. Creative, engaging activities can help to change that.

ITTO's outreach work in Japan focuses on reaching children, future leaders and decision-makers, to show them that forests are not just to be preserved from a distance. When managed responsibly, they can be used, cherished, and conserved at the same time.

## Outreach in action

“How is wood connected to your food?” This question was posed to 38 employees of the City of Yokohama on 23 January 2025 during an interactive workshop that explored the importance of biodiversity for urban life. Through self-reflection exercises, the participants, drawn from various departments—from administration to public works, to health and social welfare—reviewed their daily activities and considered the forest goods and services they used, deepening their appreciation of how their daily lives rely on the goods and services from forests. From the food they eat, to the clothes they wear, to helping fight climate change, the employees realized that forests are crucial to life in cities like Yokohama.

The workshop wrapped up with an activity where the employees wrote a headline for a newspaper for 2050. In this exercise, the participants considered what the future entails in terms of the environmental situation and planetary health. Is it bleak or bright? A range of responses was shared, but the workshop concluded with a glimmer of hope for a brighter future and a renewed appreciation of the value of tropical forests in our lives.

<sup>1</sup> Rates, S.M.K. 2001. Plants as source of drugs. *Toxicon*, 39(5): 603–613. [https://doi.org/10.1016/S0041-0101\(00\)00154-9](https://doi.org/10.1016/S0041-0101(00)00154-9)

## Learning biodiversity through origami

On 3–5 May 2025, ITTO partnered with the City of Yokohama's Green Environment Bureau for a special exhibit at the Yokohama Flower and Garden Show.

The ITTO booth, designed to resemble a tropical rainforest, drew hundreds of visitors with its vibrant plants, animal models, and hands-on art activities. Children and families folded origami, made art, and left conservation pledges on a “tree” built with pruned branches from a local park, a powerful symbol of environmental action.

Takeharu Yamanaka, Mayor of the City of Yokohama, visited the booth and praised the collaboration, particularly noting how the production of the *Tropical Forest X Origami* book, an instructional manual to fold origami of tropical forests animals, was a hit with the children.

Together with the University of Tokyo Origami Circle, ITTO hosted workshops to fold paper *Rafflesia*—one of the world's rarest and largest flowers. This fascinating plant, native to Southeast Asia, captivated participants and sparked conversations about forest biodiversity and conservation. Fumito Koike, Professor Emeritus of Yokohama National University, capped off the day with a lecture sharing insights from his tropical forest canopy research. He emphasized the critical role of international cooperation in advancing forest science and sustainability.

## Inspiring children through play

On 6 August 2025, ITTO delivered two interactive sessions as part of the City's Kodomo Adventure Colleague programme. Together with their parents, elementary school students from grades 3 to 6 had fun in the engaging workshop called “You,



Dr Takeharu Yamanaka, Mayor of the City of Yokohama and Paula Sarigumba, ITTO Communications and Outreach Officer, at the Yokohama Flower and Garden Show. © Soo Min Lee/ITTO



Children learning about tropical forests through art and play.  
© Paula Sarigumba/ITTO



Both the young and the young at heart discovered how tropical forest products are essential to daily life and global sustainability.  
© Paula Sarigumba/ITTO

Me and the Tropical Forests!”. The 90-minute workshops introduced students to the wonders of tropical forests and their vital connection to everyday life.

Through a lively mix of games, storytelling, group discussions, and visual presentations, participants explored how products like chocolate, rubber, and even medicine originate from tropical forest ecosystems. The sessions began with an icebreaker activity, where students shared their experiences and impressions of tropical forests. Excitement grew as they discovered surprising forest links in familiar items, such as capybaras and rubber tires.

In the main activity, “Tropical Forests in Our Lives,” students worked in small teams to sort product cutouts and identify which ones came from tropical forests. Art materials, colourful cutouts, and display boards added a creative flair, making the learning experience both educational and memorable. Each group then presented their findings through peer learning and reflection. A colourful presentation followed, highlighting the biodiversity and importance of tropical forests. The facilitators emphasized the role of forests in climate stability, human health, and sustainable living. We made complex topics accessible and meaningful for the young audience and their parents, stressing to the children that cutting trees is not inherently bad if it is done sustainably.

The session concluded with a reflection circle and thank-you message, leaving students with a greater appreciation of tropical forests and a sense of personal responsibility toward the environment. The students offered takeaways: “I learned many new and interesting facts about tropical forests—like how a lot of our medicine comes from plants there,” one participant shared. Another added, “Now that I know how important tropical forests are, I want to help protect them.”

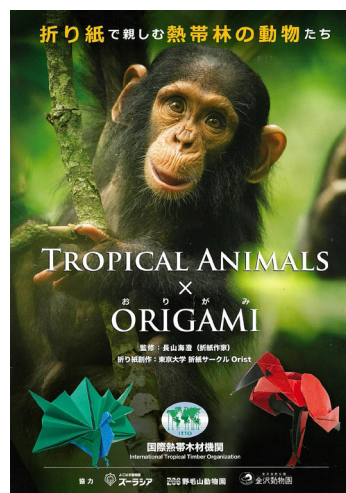
Activities such as these do not always come naturally to scientifically minded foresters. However, they are an important contribution to changing public perception and culture around forests, especially in urban societies like Japan.

Through interactive workshops, creative exhibits, and meaningful conversations, ITTO and the City of Yokohama are bringing forests to life in the minds of city dwellers. Such outreach activities help people understand that tropical forests are essential to human health, economic development, and a sustainable future.

These collaborative efforts not only expand ITTO’s outreach in Japan, but also reaffirmed our commitment to environmental education, youth engagement, and sustainability. ITTO extends its sincere gratitude to the City of Yokohama for their partnership and looks forward to continuing this vital work.



The organizers of the ITTO booth and sessions at the Yokohama Flower and Garden Show together with Mayor Takeharu Yamanaka.  
© Soo Min Lee/ITTO





Experimental mahogany plantation at Peru's National Institute for Agrarian Innovation (INIA) in Vista Florida, Lambayeque.  
© Ramon Carrillo/ITTO



# Migrating caoba to Peru's arid zones

An ITTO project reveals the potential of plantations of big-leaf mahogany for both commercial production and forest landscape restoration

by Jorge Malleux

National Agrarian University, Lima, Peru ([jmalleux@gmail.com](mailto:jmalleux@gmail.com))

*Swietenia macrophylla*, or big-leaf mahogany, is native to the tropical rainforests of Latin America. Widely distributed from southern Mexico to Brazil and Bolivia, this valuable timber species thrives in wetter areas of the Amazon basin and beyond where annual rainfall reaches 1600–4000 mm.

Known locally as caoba, the species has been subject of decades of intensive and unsustainable logging, which has prompted its listing along with other members of the genus *Swietenia* in Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora.

Attempts to cultivate caoba in plantations have been undermined by *Hypsipyla grandella*, a moth whose larvae infest and damage nearly all of the trees in a stand, defying biological, mechanical and genetic efforts to control it. However, the success of plantations on the Pacific island of Fiji, whose geographic isolation has prevented infestation by *Hypsipyla grandella*, has suggested that it could also be grown in drier areas of its native range to keep this insect at bay.

This hypothesis was examined as part of an ITTO project<sup>1</sup> to design a strategy for the restoration and rehabilitation of degraded ecosystems in the coastal region of southern Peru. This article describes the findings of a follow-up project<sup>2</sup> to evaluate in depth the viability of cultivating *Swietenia macrophylla* in plantations in Peru's northern coastal region, with the goal of laying the foundation for measures to improve its conservation status while also increasing its utilization.

<sup>1</sup> PD 852/17 Rev. 4 (F) "Development of a regional strategy for the restoration and rehabilitation of degraded areas on the south coast of Peru"

<sup>2</sup> PD 932/23 (F) "Assessment and dissemination of knowledge and experience for ex-situ conservation and plantation of mahogany/caoba (*Swietenia macrophylla*) in the northern coastal region of Peru"

## Methods

The project examined the ex-situ conservation and cultivation of caoba in semi-arid areas along the northern coast of Peru in order to synthesize and publish the knowledge and experiences gained by pioneering practitioners, stimulate interest among government and businesses in investing in caoba conservation and cultivation, and enhance wider awareness of the issue.

To this end, the author reviewed relevant literature, consulted extensively with experts in caoba cultivation, and made several field visits to the departments of Lambayeque, Piura and Tumbes to inspect caoba plantations and speak to plantation managers. To further augment the evaluation of the viability of caoba cultivation, the project team took soil and wood samples and subjected them to expert evaluation.

The project concluded with a workshop that presented the results of the project and made the case for increased investment in caoba cultivation in plantations in the region.

## Plantation experiences

Some Peruvian entrepreneurs have already taken the initiative of planting caoba in the northern coastal region, especially in Lambayeque. Although their efforts date back more than a decade, they are not well-known to other forest operators in the country, which makes documenting their experience urgent and valuable.

For instance, Vista Florida Farm, a commercial grower of crops including blueberries and asparagus has been conducting successful research projects with Amazon species such as caoba, cedar and bolaina (*Guazuma crinita*). The caoba experimental plot was established in 2016. According to information from the National Institute of Agricultural Innovation, the seeds used came from Ucayali, a department in the Amazon, and were planted as part of a study on caoba germination and morphology.

INAGRO is a private company that owns 5,000 ha of land (originally degraded forest but authorised for conversion to agriculture). It has small stands (1.5–2.0 ha) of caoba trees aged 6–7 years, with an excellent growing rate resulting in average diameter at breast height (DBH) of 25 cm, and other stands aged 3–4 years with an average DBH of 16–17 cm. These small stands were planted out of curiosity and have not been managed in any way beyond installation of a drip irrigation system. However, the growth rate is quite significant, with trees reaching heights of 7–9 meters.

Another example in the region is CHOCOCAL, a 500 ha farm that also grows asparagus and blueberries. A total area of 40 ha within the farm has been reforested with species native to local dry forests but also includes a small experimental caoba plantation, obtaining results similar to those on other farms.

The largest caoba plantation in the region is found on El Olmos-Los Cedros Farm. Some 2.5 ha were planted with caoba seed from native Amazon stands some 14 years ago. Today, the plantation is impressive, resembling a closed forest. Abundant natural regeneration dominates the lower stratum, from where seedlings are being transplanted to neighbouring areas. The plantation trees



Project Coordinator, Jorge Malleux (left), receives an explanation on seed preparation by women working in Arena Verde.  
© Ramon Carrillo/ITTO

have an average DBH of 25 cm with a height of 12–14 m. This represents annual growth of about 2 cm DBH and 1 m in height.

Some very small plantations (less than 0.5 ha) were also briefly visited or noted along the road between Chiclayo and Olmos.

While outside the project region, experience gained from the earlier ITTO project is also valuable. In that undertaking, seeds from plantations in the north were planted in plots in the southern coastal region of Peru and had a germination rate of almost 100%. Currently, the 100 trees that were planted are growing normally, reaching approximately 4–5 m meters in height, despite high levels of salinity in the soil and irrigation water.

## Physical progress

The growing number of plantations and their initial results indicate that caoba could have a promising future in Peru's coastal regions. Large companies such as Vista Florida and CHOCOCAL are seriously interested in investing in natural forest conservation, restoration and rehabilitation of degraded forest landscapes, because of encouraging initial experiences, and particularly because it could add value to their businesses by securing credit and prestige in European and US markets.

Despite semi-arid conditions, provided the average annual temperature lies between 20 °C and 23 °C, soil and water conditions can be managed through corrective measures and/or drip irrigation systems that deliver 1200–1500 m<sup>3</sup>/ha/year—less than the amount of rainfall occurring in the Amazon, the native range area of caoba.

Tests of the characteristics of wood samples from the El Olmos-Los Cedros plantation yielded positive results. A sample taken from a 1.5-metre stem with a DBH of 30 cm was sent to the CITEMADERA technology laboratory in Lima for testing. The basic density of the wood sample was measured at 0.51 g/cm<sup>3</sup> which can be considered as medium density according to the classification developed by Aróstegui et al (1982). Higher-density wood generally exhibits higher mechanical strength, for instance in properties such as static bending, compression and hardness. The tested sample showed generally higher values for mechanical strength than the reference values mentioned by Aróstegui et al (1982). However, this comparison should be considered as indicative only, since mechanical strength is strongly influenced by moisture conditions. The tested samples also showed low volume shrinkage, while the ratio of tangential to radial shrinkage (T/R ratio) of 1.28 indicates that the wood is stable.

## Need for support

The viability of plantations depends not only on creating the right physical conditions, but also on the availability of knowledge and the degree of support from regional and national authorities as well as international organizations concerned with the forestry sector.

Experts interviewed by the project team identified several structural factors limiting investment in the sector, including legal uncertainty, a lack of zoning of land suitable for plantations, poor infrastructure, a lack of innovation, and a lack of incentives.

In the view of the author, any initiative for commercial-scale plantations in Peru would require a strategy and support programme with incentives from the government. Such a strategy should have specific goals to increase the area of forest plantations, improve productivity, encourage investment, ensure sustainable practices, strengthen the value chain, generate employment, and reduce dependence on imports. These goals seek not only to improve the supply of forest products but also to contribute to the country's economic and sustainable development.

However, achieving such goals poses significant challenges, such as obtaining the necessary financing, training and retaining a skilled workforce, improving infrastructure, implementing sustainable practices, coping with adverse climatic conditions, ensuring favourable policies and regulations, and developing markets for forest products.

The availability of financing is a critical factor in covering the initial costs faced by producers in establishing and managing commercial plantations. Several options should be evaluated by stakeholders such as the Ministry of Agricultural Development and Irrigation, the Ministry of Economy and Finance, and the National Forestry and Wildlife Service (SERFOR).

One option is the development of a commercial forest plantation fund, which would subsidize up to 50% of the cost of the plantation. Preferential loans could also finance the establishment and use of plantations as well as the processing and sale of timber, especially during the first two years.

Further options include future sales of forest land to medium-sized producers, public-private partnerships, and financial incentives for small producers and communities.

## Sharing insights

The ITTO project culminated in a workshop to share key insights gained during its activities. Held in July 2024 with support from the regional government of Lambayeque, the workshop aimed to promote investment in caoba plantations in the region. To this end, results from the plantations studied and recommendations from the experts consulted were shared; the regional government was informed of the mechanisms available for promoting the activity; and landowners and businessmen in the region were shown the benefits of forest plantations as an alternative crop to other agricultural species that require more water and add less value.

The following commitments were made at the end of the workshop:

- By the Department of Natural Resource Management of the regional government: Establish a forest zoning plan for the region to grant forest concessions, for which a technical committee will be established.
- By Nils Pérez, owner of the El Olmos-Los Cedros plantation: To give free access (by prior arrangement) to anyone who wants to visit and see the plantation first hand, as well as to make naturally propagated caoba plants available to anyone who wants to take them and transplant them (noting that there is not a large quantity).
- By the non-governmental organization Costa Verde: To submit a proposal to ITTO for a project to develop caoba seed production and appropriate training.

## Conclusions

The project has demonstrated that it is possible to successfully establish caoba plantations in the northern coastal region of Peru. Despite being established often without detailed management plans, existing plantations in the northern coastal region have produced positive results. It has also found that there is considerable support among private, community and public stakeholders for reforestation and restoration activities through plantations using high-value species such as caoba.

The project helped to establish a broad-based interest group that supports the development a project proposal to support experimental commercial caoba plantations in Lambayeque. Such a pilot project will make it possible to establish the necessary conditions to promote this activity in an orderly, efficient and effective manner, potentially opening an avenue for the revitalization of forestry in the area, the generation of rural jobs and economic benefits as well as associated benefits such as carbon sequestration and the reduction of pressure on the species in Amazon forests.



Preparing specimens for wood testing in the CITEMADERA laboratory. © CITEMADERA

## Reference

Aróstegui V., M. S. A., González F., M. S. V. R., & Sato A., A. (1982). *Propiedades tecnológicas y usos de la madera de 40 especies del Bosque Nacional Alexander von Humboldt*. *Revista Forestal del Perú*, 10(102), 1–86. [http://cedinfor.lamolina.edu.pe/Articulos\\_RFP/Vol10\\_no1-2\\_80-81\\_\(14\)/vol10\\_art1.pdf](http://cedinfor.lamolina.edu.pe/Articulos_RFP/Vol10_no1-2_80-81_(14)/vol10_art1.pdf)



Aerial view of the vast peatland in Riau, Sumatra, Indonesia.  
© Paula Sarigumba/ITTO



# The economic and personal value of peatlands

An ITTO Fellow returned to his roots to explore the economic value of Indonesia's carbon-rich peatlands

*By Mohammad Yunus  
([mohammad.y@kkumail.com](mailto:mohammad.y@kkumail.com))*

I was born and grew up in Riau Province, home to the largest tropical peatlands in Indonesia. From my earliest memories, the peatland was not merely a backdrop to my childhood but an integral part of daily life. The spongy, dark earth beneath my feet, the distinctive smell of organic matter slowly decomposing in waterlogged conditions, and the unique ecosystem that thrived in these seemingly inhospitable areas were intimately familiar.

I witnessed how deeply intertwined local communities were with these peat ecosystems. My own family, like countless others across Riau, depended on the peatland for our livelihood. Whether it was fishing in the peat-stained waters, harvesting timber from the peat swamp forests, or cultivating crops on the fertile organic soils, the peatland provided the foundation for our economic survival.

However, my childhood memories are not filled only with positive experiences of the peatland. In 1998, I lived through one of the most devastating environmental disasters in Southeast Asian history, when massive peatland fires engulfed Indonesia. The fires, fuelled by El Niño-induced drought and extensive land clearing activities, burned for months, releasing enormous quantities of carbon dioxide and creating a thick haze that blanketed the region.

That experience of both the life-giving and life-threatening aspects of peatlands sparked a fascination with understanding their true value to society. This passion deepened after I graduated and began working in various organizations, including universities, non-governmental organizations, and companies in Indonesia. I was involved in numerous environmental studies, particularly at the intersection of peatlands, palm oil, and local communities. I plan to elaborate on this experience in my future postgraduate studies. It is also the reason why I chose to focus on this issue for my thesis at Khon Kaen University in Thailand.

## Vital tropical resource

Tropical peatlands represent some of the most carbon-dense ecosystems on Earth, storing up to one-third of global soil carbon despite covering only 3–4% of the world's land surface (UNEP 2022). These wetland systems serve as indispensable resources for climate regulation, biodiversity conservation, water management, and local livelihoods. In Indonesia alone, peatlands cover approximately 13.4 million ha (Anda et al. 2021), making the country home to 13% of the world's tropical peat deposits (UNEP 2022).

Despite their ecological and economic importance, tropical peatlands remain under severe threat from human activities and climate change. Large-scale conversion for commercial use has resulted in the drainage and degradation of millions of ha of peatland (Dohong et al. 2017; Medrilzam et al. 2014). When drained, these soils become highly flammable and release stored carbon to the atmosphere, contributing significantly to global greenhouse gas emissions.

The challenge of balancing economic development with peatland conservation is particularly acute in Indonesia, where these ecosystems support the livelihoods of millions of people while simultaneously facing pressure from expanding industrial agriculture and infrastructure development.



I witnessed how deeply intertwined local communities were with these peat ecosystems. My own family, like countless others across Riau, depended on the peatland for our livelihood.

The author examining peat soil planted with young oil palm next to a rubber plantation.  
© Mohammad Yunus

## Fellowship outputs

I first learned about the ITTO Fellowship while searching online for references for my thesis. Drawing on my experience with peatlands, I felt confident to submit my application to ITTO, and was delighted to be among the awardees.

The fellowship provided me with the opportunity to conduct a comprehensive study on the economic valuation of peatland ecosystem services, focusing specifically on the complex interplay between ecological systems and livelihoods in Riau Province. This work helps address a critical knowledge gap regarding the true economic value of these ecosystems.

I achieved significant milestones in the preparation, publication, and dissemination of my master's degree research. The process was both challenging and rewarding, requiring me to master complex economic valuation methodologies while also developing the communication skills necessary to translate technical findings into accessible insights for diverse audiences.

The most significant achievement of the fellowship was the successful publication of two peer-reviewed articles in reputable international journals. The first paper, *"Economics of Peatland Ecosystem Services: A Study of Use and Non-Use Values and People Interplays in Sumatra, Indonesia"*,<sup>1</sup> employed revealed preference and stated preference methods to quantify the economic value of various ecosystem services, including fisheries, water, soil fertility, carbon, and more.

The study found that around 81% of total economic value (TEV) came from use values, mainly direct and indirect benefits to households (Figure 1). Fishing contributed the largest share, averaging USD 808 per household per year (about 30% of household income). This activity was especially important in riverside Malay villages. Soil fertility for crops,

especially oil palm, rubber, coconut, and rice, was the second-largest contributor, estimated at USD 709 per household per year. Indirect use values centred on fire prevention and carbon sequestration, valued at USD 70 and USD 509, respectively.

Non-use values made up 19% of TEV, with existence value (spiritual and cultural significance of pristine peatlands) at USD 604 per household per year. Bequest value, or willingness to pay for conservation, averaged just USD 3, with only 20% of respondents willing to contribute to programmes like habitat restoration or wildlife protection.

The second publication, *"Local Livelihoods and Determinants of Peatland Protection in Indonesia"*,<sup>2</sup> examined how socio-economic factors influence local knowledge and practices related to peatland protection. Of twelve variables analyzed, five significantly affected knowledge, and six influenced conservation actions.

Age was the strongest predictor, with respondents over 55 having higher knowledge scores than younger individuals. Education (over nine years) and long-term residency (over 50 years) were also linked to greater understanding and more frequent protective behaviour. Proximity to peatlands and village centres improved both knowledge and practice, likely due to better access to resources.

Higher income households were more likely to engage in sustainable practices, even if their knowledge was limited. Interestingly, training workshops improved knowledge but often failed to translate into action, participants scored lower on practice than those who didn't attend. Similarly, non-farmers showed more willingness to adopt conservation behaviours than farmers.

TEV 3,239				
Use value 2,631 (81%)			Non-use value 608 (19%)	
<b>Figure 1: Estimated economic value of peatland ecosystem services in Sumatra, Indonesia (USD/household/year)</b>			604	
<b>78%</b>	<b>28%</b>	<b>&lt;1%</b>	<b>&lt;1%</b>	<b>99%</b>
Direct use value: fishery, soil, fertility, animals, etc	Indirect use value: fire prevention, carbon sequestration	Option value: habitat for endangered species	Bequest value: biodiversity for future generation	Existence value: spiritual, sacred and religious values

Source: Author's research<sup>1</sup>

<sup>1</sup> <https://doi.org/10.3390/land13060866>

<sup>2</sup> <https://doi.org/10.1016/j.tfp.2025.100800>

Overall, these patterns suggest that while knowledge increased with age, education, and training, actual conservation practices were most strongly influenced by how long respondents had lived in the area.

Another component of the fellowship involved developing practical resources for knowledge transfer to local communities. I helped create an educational booklet titled “Unlocking Economic Value of Peatland Ecosystem Services and Implications for Effective Peatland Management: A Case Study from Riau, Sumatra, Indonesia.”<sup>3</sup> This resource distilled the key findings of the research into an accessible format, using simple language and illustrations to communicate complex economic concepts to non-academic audiences. The booklet, produced in both English and Bahasa Indonesia, proved valuable during outreach activities. It served as a foundation for discussions about sustainable peatland management with local communities, government officials, and civil society organizations.

<sup>3</sup> <https://doi.org/10.5281/zenodo.16089175>

## Research implications

The research conducted during the fellowship has implications for peatland management policy and practice throughout the tropical regions where these ecosystems are found. The economic valuation framework provides a template that can be adapted and applied to other peatland systems, helping to build a more comprehensive understanding of their global economic importance.

One key insight is the importance of considering both use and non-use values when assessing the economic importance of peatlands. Traditional assessments often focus primarily on direct extractive uses, such as agricultural conversion, while overlooking the substantial economic value provided by ecosystem services such as carbon sequestration and water regulation.



Palm oil plantations dominate the landscape in the study area.  
© Mohammad Yunus

Non-use values, particularly those related to carbon sequestration and existence value of sacred forest, represent crucial components of total peatland economic value. This has important implications for policy design, suggesting that compensation mechanisms for peatland conservation should reflect the full range of ecosystem services provided by these systems.

The study also highlighted the importance of involving local communities in peatland management decisions. The research on determinants of conservation behaviour revealed that community support for peatland protection is influenced by factors such as education levels, income diversification opportunities, and awareness of ecosystem services. This suggests that effective peatland conservation programme must address local economic needs while building awareness of the broader benefits of ecosystem preservation.

The journey from childhood memories of Riau's peatlands to rigorous scientific investigation of their economic value has taught me that these ecosystems represent far more than waterlogged land. They are complex, functioning systems that provide essential services to humanity. The economic valuation research revealed that peatlands generate substantial value through carbon sequestration, water regulation, biodiversity conservation, and direct resource provision, with total economic values often exceeding those generated by alternative land uses.

## References

Anda, M., Ritung, S., Suryani, E., Sukarman, Hikmat, M., Yatno, E., Mulyani, A., Subandiono, R.E., Suratman, and Husnain. 2021. Revisiting tropical peatlands in Indonesia: Semi-detailed mapping, extent, and depth distribution assessment. *Geoderma* 402, 115235–115235. <https://doi.org/10.1016/J.GEODERMA.2021.115235>

Dohong, A., Aziz, A. A., and Dargusch, P. 2017. A review of the drivers of tropical peatland degradation in South-East Asia. *Land Use Policy* 69, 349–360. <https://doi.org/10.1016/j.landusepol.2017.09.035>

Medrilzam, M., Dargusch, P., Herbohn, J., and Smith, C. 2014. The socio-ecological drivers of forest degradation in part of the tropical peatlands of Central Kalimantan, Indonesia. *Forestry: An International Journal of Forest Research* 87, 335–345. <https://doi.org/10.1093/forestry/cpt033>

UNEP. 2022. *Global Peatlands Assessment: The State of the World's Peatlands - Evidence for Action toward the Conservation, Restoration, and Sustainable Management of Peatlands*. United Nations Environment Programme, Nairobi. <https://doi.org/10.59117/20.500.11822/41222>



Fisheries are among the most important peatland ecosystem services. Smoking is a traditional and popular way to process the catch. © Mohammad Yunus



A towering old tree stands in the heart of the peat swamp forest. © Mohammad Yunus



Affixing a QR code to a stump inside Shwedaung Se Unclassified Forest, which was planted in 1987.  
© MFCC

A photograph of a person in a forest department uniform kneeling in a forest. The person is wearing a light-colored uniform shirt with a 'FOREST DEPARTMENT' patch on the sleeve and a green hat. They are looking down at the ground. In the background, other people are standing, one wearing blue pants and sandals. The ground is covered with dry leaves and twigs.

# Certifying sustainability in Myanmar

An ITTO project has advanced the country's certification systems and its ability to assure the legality and sustainability of its timber

*by Barber Cho  
Secretary, Myanmar Forest  
Certification Committee (secretary@  
myanmarforestcertification.org)*

Myanmar is a country rich in natural resources. Its forests extend over 28.5 million ha, or about 42% of the total land area, and include a significant part of the world's remaining natural teak forests.

The forests and other wooded land are tremendously important for the well-being of Myanmar's rural population, who comprise the majority of its 54 million people, as well as for the country's ecological integrity and economic development. They support basic household needs and livelihoods, commercial production, export earnings, and employment.

While Myanmar possesses a well-developed forest management system and many qualified forestry professionals, it has faced challenges in establishing internationally recognized forest certification and timber legality assurance systems.

These systems are critical for Myanmar to gain greater access to export markets and thus realize the potential of sustainable forest management (SFM) and the trade in sustainably and legally produced timber to generate development, maintain the supply of ecosystem services, and raise living standards.

In 2021, Myanmar therefore engaged in a project supported by ITTO<sup>1</sup> to advance the achievement of SFM in the country by strengthening national certification systems for forest management and chain of custody as well as its timber legality verification system.

The project, which was implemented by the Myanmar Forest Certification Committee (MFCC) and extended due to delays related to the COVID-19 pandemic, concluded in 2024 with positive results in all these areas. However, Myanmar continues to face challenges in securing recognition of its progress.

## Certification and legality

The primary focus of the project was on the effective implementation of the Myanmar Forest Certification Scheme (MFCS) and the Myanmar Timber Legality Assurance System (MTLAS). It aimed to ensure the long-term sustainability of its outcomes by establishing viable certification systems, enabling capacity-building interventions, and supporting the adoption of locally generated and cost-effective timber tracking technologies.

The project aimed to deliver three key outputs:

1. Enhanced MFCS and MTLAS through activities including comprehensive training programmes and the incorporation of digitalized timber tracking systems.
2. Increased stakeholder capacity in monitoring and verification, including through training and workshops.
3. Establishment and operation of effective outreach and communication systems, for instance through MFCC's website and newsletters, and its participation in relevant international events.



Representatives of Myanmar accreditation and certification bodies and MFCC during a visit to a certified forest near Hanoi, Viet Nam © MFCC

## Strengthened systems

To strengthen the MFCS, the project management team developed an improved draft checklist/audit form based on the “Myanmar Criteria and Indicators for Forest Management Certification Standard (2020)”. The audit form was piloted with field testing and document reviews at a privately owned timber plantation. The standard has since been submitted and endorsed by the national standards body. The team also developed and launched training programmes on forest management certification and chain of custody (CoC) management for stakeholders including certification bodies.

MFCC also carried out a thorough overhaul of the MTLAS, the first version of which dated from 2013. A draft checklist was field-tested on state-owned and private plantations and at timber mills. After reviews of previous assessments of MTLAS, discussions in an Expert Advisory Group, and public consultations, MTLAS v 2.00 was finalized and released in January 2023. Both the Myanmar and English language versions have been uploaded onto the MFCC website. The revised MTLAS was endorsed in 2025 as a national standard.



Interviewing the staffs of Shweduang Township Forest Department and Compliance Assessment by Certification Bodies. © MFCC

MFCC also conducted a series of workshops for members of the Forest Department, Myanmar Timber Enterprise, private plantation owners, and certification bodies to make them familiar with the improvements to both MFCS and MTLAS.

To further strengthen CoC management and provide easy access to due diligence documents, a working group on the Digitalization of Timber Tracking System (DTTS) was formed with representatives from MFCC, the Forest Department, the state-owned Myanmar Timber Enterprise (MTE), and the private sector. The resulting system, using of QR codes attached to logs harvested by MTE, was piloted at the forest and transportation stages. Piloting at the processing stage is ongoing as a post-project activity, using remaining funds of the ITTO project, with prior approval of the donor. Recommended procedures were subsequently laid down in a DTTS training curriculum and training manual. Several training-of-trainers sessions on tracing timber from source to export were held in 2023, drawing more than 100 participants. In addition, DTTS hardware, including GPS devices and QR-code printers, with a total value of USD 26,145 was handed over to the Ministry of Natural Resources and Environmental Conservation (MONREC).

<sup>1</sup> ITTO Project PP-A/56-342A “Strengthening SFM standards and timber legality framework in Myanmar”.



Checking logs entering the capital, Yangon. All logging trucks are to be inspected using both attached documentation and QR codes. © MFCC

The project management team also reviewed system documentation, including guidance documents and certification body requirements. It has proposed several revisions and amendments that are currently moving through an approval process.

To advance the accreditation of Myanmar certification bodies with the International Organization for Standardization (ISO), a delegation drawn from the Myanmar Accreditation Body, certification organizations, and MFCC attended a two-day training organized by the Programme for the Endorsement of Forest Certification in Hanoi, Vietnam, in 2023. The training focused on PEFC standards, due diligence systems, CoC methods and multi-site certification. The project also facilitated a meeting between MAB and the Vietnam Accreditation Body to discuss joint-assessment cooperation.

To further support the accreditation drive and build the capacity of MFCC as a national governing body, the organization undertook fact-finding missions to the Thailand Forest Certification Council and the Royal Thailand Forestry Department, the Vietnam Forest Certification Office (as part of a high-level delegation from MONREC that also visited smallholder plantations and processing mills), and the Malaysia Timber Certification Council. The visits provided valuable insights drawn from the experience of peer organizations in areas including forest policy development, organizational structures, operating procedures and financial stability, and overcoming challenges in the implementation of certification and legality assurance schemes.

The project strengthened outreach and communication with stakeholders with workshops and knowledge-sharing meetings on the revised MTLAS and MFCS as well as regular updates through the MFCC website, newsletters and social media platforms. A closing workshop in March 2024 gathered stakeholders to review the project's achievements.

## Lasting benefits

In conclusion, the ITTO Project “Strengthening SFM Standards and Timber Legality Framework in Myanmar” has made a significant contribution to Myanmar by enabling us to reorganize various aspects of our institutions, systems, and stakeholder engagement.

As a result, we are now better equipped to address current challenges effectively. We extend our sincere gratitude to ITTO and the Government of Japan for providing this invaluable opportunity through the project.

Perhaps the most significant achievement of the project is the profound and expanded awareness among stakeholders of the critical importance of forest certification and the demand for legal timber.

Specifically, the primary stakeholder, the Forest Department, has shown a strong determination to expedite the development of certified forests within private plantations in the shortest possible timeframe.

To help ensure that the benefits of the project will continue to unfold after its conclusion, MFCC has also drawn up a five-point sustainability plan. This includes the creation of the first-ever certified forest in Myanmar; extending digitization to cover multiple stations and trace activities in real time; collaborating on a joint assessment between the accreditation bodies of Myanmar and Viet Nam to achieve accreditation; providing ISO training to certification bodies; and regularly updating system documents to reflect current practices and standards.

Taken together, these developments underline how the forestry sector in Myanmar is stronger than often perceived internationally. The country has a robust framework of forest policy and law, regulations, forest management experience and knowledge, and a comprehensive set of procedures and documentation practices.

From the author's perspective, Myanmar and its forestry sector deserves a more positive image. Of course, the forestry sector, including MFCC, needs to do more and demonstrate commitment to further improvements in SFM and to ensuring timber legality. But we also need more support from our partners, whatever the political circumstances, for sincere efforts to move forward and safeguard the future of our forests and forest-related industries, and of the very many people who depend on them.

## El Niño shifts causing tropical insect and spider declines

A recent international collaboration of scientists found significant losses of multiple types of arthropods living in tropical forest sites, including butterflies, beetles, and spiders. The researchers conducted a whole-of-tropics analysis on tropical forest insects and their relatives, as well as the ecological roles they perform.

The biodiversity loss matched drops in the amount of live leaf material consumed by arthropods over time, and substantial instability in the amount of dead leaves decomposed by arthropods.

. The tropics experience natural but irregular year-to-year variation in climate, driven by an atmospheric phenomenon called the El Niño Southern Oscillation – ENSO. Long-term changes to the ENSO cycle, caused by climate change, are likely behind the observed arthropod declines.

Read more:  
<https://news.griffith.edu.au/2025/08/07/changes-to-el-nino-occurrence-causing-widespread-tropical-insect-and-spider-declines/>

## New global fund for forests is a bold experiment in conservation finance

As host of the COP30 climate conference, Brazil is launching a new model for climate finance called the Tropical Forest Forever Facility (TFFF). TFFF seeks to provide predictable annual financing to more than 50 tropical forests countries, with at least 20 percent of its funding pledged to Indigenous Peoples and local communities.

TFFF treats tropical forests as essential global environmental infrastructure that requires protection and recognition. It is built around the idea of compensating governments for maintaining or restoring forest areas, and encourages the integration of conservation into national economic planning.

Key milestones for the TFFF relate to securing the necessary capital, estimated at an initial USD 125 billion, with calls for contributions from both government and private investors.

TFFF is expected to launch at COP30 in November 2025.

Read more:  
[www.climatechangenews.com/2025/04/09/new-global-fund-for-forests-is-a-bold-experiment-in-conservation-finance/](http://www.climatechangenews.com/2025/04/09/new-global-fund-for-forests-is-a-bold-experiment-in-conservation-finance/)

## Democratic Republic of the Congo to create world's largest tropical forest reserve

Following new legislation passed by the parliament of the Democratic Republic of the Congo in January 2025, an area of the country the size of France has been designated as a protected forest area.

The Kivu-Kinshasa Green Corridor builds on a previous model called the Virunga Alliance, an economic framework based on sustainable resource management, peacebuilding, and the green economy. The new initiative aims to create 500,000 new jobs and transfer a million tonnes of food annually from the east of the country to the capital, Kinshasa, Africa's largest city.

The Congo Basin is the largest tropical forest carbon sink in the world, is home to 10,000 unique species, and provides livelihoods to 60 million people.

Read more:  
[www.weforum.org/stories/2025/01/congo-kivu-kinshasa-green-corridor/](http://www.weforum.org/stories/2025/01/congo-kivu-kinshasa-green-corridor/)

## Global warming is altering lightning, impacting tropical forests

A climate-change-induced increase in thunderstorms poses a growing threat to trees in tropical forests, according to new research.

The study determined that short-lived but powerful convective storms, which combine high winds with lightning, have become a major driver of tree mortality in Panama and elsewhere in the tropics. Researchers calculated that storm activity may already cause 30–60 percent of tree mortality in tropical forests globally.

It is estimated that over 800 million trees are damaged by lightning every year in the tropics, with nearly 200 million dying as a result.

Read more:  
<https://news.mongabay.com/2025/07/global-warming-is-altering-storms-lightning-impacting-tropical-forests/>

## Animals boost tropical forests' carbon absorption by aiding seed dispersal

New research found that tropical forests with healthy populations of seed-dispersing animals can absorb up to four times more carbon than similar forests with fewer seed-dispersing animals.

As tropical forests are Earth's largest land-based carbon sink, the findings improve understanding and coordination of tools needed for climate action. The results demonstrate the importance of animals in maintaining healthy, carbon-rich tropical forests.

The researchers say that the paper shows the need to address biodiversity loss and climate change as connected problems due to the significant link found between seed-dispersal declines and reductions in carbon absorption.

Read the full story:

<https://phys.org/news/2025-07-animals-boost-tropical-forests-carbon.html>

## New satellite to map the carbon content of rainforests from space

Following more than ten years in development, the European Space Agency is launching a satellite intended to map the carbon content of the world's tropical rainforests.

The probe, named Biomass, will orbit Earth and monitor the above-ground biomass and height of trees in forests in Africa, Asia, and South America. Those measurements will then be used to measure and track carbon storage.

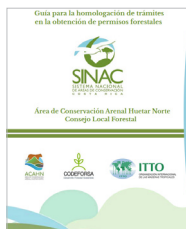
Forests are valuable carbon sinks which sequester a quarter of human-generated carbon emissions annually. However, forests' ability to store carbon is weakening due to deforestation and environmental degradation. Importantly, the satellite will give scientists more information to understand how carbon levels are fluctuating, as well as a tool to map deforestation.

Read more:

[www.smithsonianmag.com/smart-news/a-new-satellite-will-map-the-carbon-content-of-rainforests-from-space-and-its-set-to-launch-this-month-180986379/](http://www.smithsonianmag.com/smart-news/a-new-satellite-will-map-the-carbon-content-of-rainforests-from-space-and-its-set-to-launch-this-month-180986379/)



Measuring the diameter of a caoba tree using a caliper.  
© Costa Verde



**Zeledón Noguera, A., Alvarado Arguedas, J.M., García Rodríguez, J.F., de la Trinidad Porras Sánchez, W. & Alfaro Morales, F.R. Guía para la homologación de trámites en la obtención de permisos forestales. Costa Rica, Sistema Nacional de Áreas de Conservación.**

Available at: [bit.ly/46s25fu](http://bit.ly/46s25fu)

This guide is intended to serve as a source of information for forestry sector stakeholders on the specific requirements and procedures that must be applied equally in the four subregional offices of the Arenal-Huetar Norte Conservation Area (ACAHN) in procedures related to forest harvesting and the transportation of wood products from forests, plantations, and non-forested agricultural land.



**FAO and UNHCR. 2024. Sustainable forest management as means to enhance self-reliance and promote climate resilience in displacement settings. Rome, FAO.**

Available at: <https://openknowledge.fao.org/handle/20.500.14283/cd3576en>

This issue brief explores the interconnections between access to natural resources, energy needs, environmental degradation, climate vulnerability, and social cohesion, all within the context of safeguarding forcibly displaced populations and host communities while fostering resilience. These challenges are further compounded by factors such as food insecurity, poverty, inequality, vulnerability, and conflict. Key messages and recommendations are presented to support effective, context-appropriate, multisectoral interventions that integrate forests, energy, livelihoods, and climate considerations.



**Ofori, S.A. et al. 2025. Leveraging mangroves to advance climate action in Africa: Zooming in on Nationally Determined Contributions (NDCs). Journal of Environmental Management 392: 126669.**

Available at: [www.cifor-icraf.org/knowledge/publication/44952/](http://www.cifor-icraf.org/knowledge/publication/44952/)

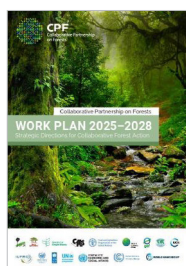
Mangroves are vital for climate change adaptation and mitigation due to their efficient carbon sequestration and coastal protection roles, providing often untapped opportunities for countries to enhance their national climate commitments under the Paris Agreement. In Africa, several countries possess mangroves and have signed the Paris Agreement, however, the level of integration of mangrove actions into Nationally Determined Contributions (NDCs) has not been adequately explored. In this review, 33 African countries possessing mangroves were selected and their NDCs reviewed, scored, and ranked to assess their level of integration of mangrove ecosystems into their NDCs.



**Kleinsmann, K. et al. 2025. Enhancing adoption of tree-based restoration practices: Insights from Regreening Africa. Bogor, CIFOR-ICRAF.**

Available at: <https://www.cifor-icraf.org/publications/pdf/project-briefs/UNDecade-Research-Brief.pdf>

This research summary brief distills lessons from the first five years of Regreening Africa, a large-scale initiative implemented across sub-Saharan African countries to scale up the adoption of tree-based restoration practices including farmer-managed natural regeneration, tree planting, and soil and water conservation. Drawing on household-level data and extensive on-the-ground experience, the brief explores the key factors that enable or limit uptake, offering practical insights to inform restoration efforts under the UN Decade on Ecosystem Restoration.

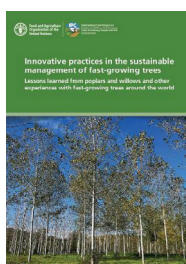


**FAO. 2025. Collaborative Partnership on Forests Work Plan 2025–2028 – Strategic Directions for Collaborative Forest Action. Rome, FAO.**

ISBN 978-92-5-139808-1

Available at: <https://openknowledge.fao.org/items/c0b7b79a-4b1e-426e-b54b-93b2338a1375>

The 2025–2028 work plan of the Collaborative Partnership on Forests (CPF) sets forth clear priorities, joint actions, collaborative activities, resource needs, outputs and indicators for assessing progress for the activities of the CPF. It also ensures that reports of the CPF on the implementation of the work plan to the UN Forum on Forests (UNFF) and other governing bodies are structured around the Global Forest Goals. The CPF work plan was developed in line with the programme of work of the UNFF for the same period following guidance received from UNFF and other governing bodies of CPF member organizations.



**Zalesny, R.S. Jr., Barzagli, A., Caldwell, B., Minotta, G., Nervo, G., Paris, P., Rogers, E.R. & Salbitano, F., eds. 2025. Innovative practices in the sustainable management of fast-growing trees – Lessons learned from poplars and willows and other experiences with fast-growing trees around the world. Rome, FAO.**

ISBN 978-92-5-139579-0

Available at: <https://openknowledge.fao.org/items/3e321bba-5916-44c0-9b90-b8e6f2bec1a5>

Planted forests account for 7 percent of the global forest area, covering 290 million ha of land. About 131 million ha of planted forests are intensively cultivated for productive purposes with fast-growing trees (FGTs). Globally, FGT plantations are comprised of a variety of tree species in temperate, subtropical and tropical biomes. The objective of this publication is to address the knowledge gaps and the current and potential development of FGTs at the global scale by highlighting successful, innovative FGT practices that can help sustain people and the environment.

# Events

**9–15 October 2025**

**IUCN World Conservation Congress**

Abu Dhabi, United Arab Emirates  
<https://iucn.org/our-union/iucn-world-conservation-congress>

**20–22 October 2025**

**Country-led Initiative - International Forest Fire Conference**

Istanbul, Türkiye  
<https://www.un.org/esa/forests/events/turkiye-to-host-unff-country-led-initiative-on-forest-fires/index.html>

**20–24 October 2025**

**6th World Congress on Agroforestry: “Agroforestry for People, Planet & Profit”**

Kigali, Rwanda  
<https://agroforestry2025.org/>

**20–24 October 2025**

**SBSTTA 27: Twenty-seventh meeting of the Subsidiary Body on Scientific, Technical, and Technological Advice of the Convention on Biological Diversity**

Panama City, Panama  
[www.cbd.int/meetings/SBSTTA-27](http://www.cbd.int/meetings/SBSTTA-27)

**21–23 October 2025**

**GFOI Plenary 2025: “Forests and the marvel of monitoring”**

Bali, Indonesia  
[www.fao.org/gfoi/news-events/events/events-detail/en/c/1737578/](http://www.fao.org/gfoi/news-events/events/events-detail/en/c/1737578/)

**22 – 25 October 2025**

**43rd session of the European Forestry Commission**

Istanbul, Türkiye  
[www.fao.org/forestry/statutory-bodies/european-forestry-commission/en](http://www.fao.org/forestry/statutory-bodies/european-forestry-commission/en)

**22–25 October 2025**

**Society of American Foresters National Convention**

Hartford, Connecticut, United States of America  
<https://eforester.org/safconvention2025>

**23–27 October 2025**

**11th FLARE Annual Meeting**

Lima, Peru  
<https://www.forestlivelihoods.org/annual-meeting-2025/>

**28–30 October 2025**

**Biodiversity Conference 2025: “Nature Positive”**

Perth, Australia  
[www.biodiversity2025.com/](http://www.biodiversity2025.com/)

**04–07 November 2025**

**31st session of the Asia-Pacific Forestry Commission**

Chiang Mai, Thailand  
[www.fao.org/forestry/all-events/events-detail/31st-session-asia-pacific-forestry-commission](http://www.fao.org/forestry/all-events/events-detail/31st-session-asia-pacific-forestry-commission)

**19 – 21 November 2025**

**IX Latin American Forestry Congress (CONFLAT)**

Lima, Peru  
<https://conflat.org/>

**10–21 November 2025**

**2025 UN Climate Change Conference (UNFCCC COP 30)**

Belém, Brazil  
<https://unfccc.int/cop30>

**25–26 November 2025**

**14th Asia Smart City Conference**

Yokohama, Japan  
[ki-asc@city.yokohama.lg.jp](mailto:ki-asc@city.yokohama.lg.jp)

**24 November–5 December 2025**

**20th meeting of the Conference of the Parties to the Convention on International Trade in Endangered Species of Wild Fauna and Flora**

Samarkand, Uzbekistan  
<https://cites.org/eng/cop/20>

**8–12 December 2025**

**Seventh session of the United Nations Environment Assembly (UNEA-7): “Advancing sustainable solutions for a resilient planet”**

Nairobi, Kenya  
[www.unep.org/environmentassembly/unea7](http://www.unep.org/environmentassembly/unea7)

**23–25 February 2026**

**COLI Summit: Country-Led Initiative on Advancing Sustainable Forest-based Bioeconomy Approaches**

Vienna, Austria  
[www.bmluk.gv.at/en/coli.html](http://www.bmluk.gv.at/en/coli.html)

**2–4 June 2026**

**Carrefour International du Bois**

Nantes, France  
[www.timbershow.com/](http://www.timbershow.com/)

**19–30 October 2026**

**17th meeting of the Conference of the Parties to the Convention on Biological Diversity**

Yerevan, Armenia  
<https://www.cbd.int/notifications/2025-096>

**19 March–26 September 2027**

**GREEN x EXPO 2027**

Yokohama, Japan  
<https://expo2027.yokohama.or.jp/en/>

## ITTO meetings

**27–31 October 2025**

**61st Session of the International Tropical Timber Council and Sessions of the Associated Committees**

*Panama City, Panama*

The International Tropical Timber Council, ITTO's governing body, meets once a year to discuss a wide-ranging agenda aimed at promoting sustainable tropical forest management and the trade of sustainably produced tropical timber. Council sessions are open to official delegates and accredited observers.

More information: [www.itto.int/council\\_committees/](http://www.itto.int/council_committees/)

Note that all events are subject to change or cancellation. Please check the contact addresses for the latest information.

ITTO provides this list of international events as a public service and is not responsible for changes in date or venue or for other errors.

## Subscribe to ITTO's Tropical Forests News

A monthly newsletter that delivers to you the latest about ITTO activities, key developments, and ongoing trends in the tropical timber industry.

Scan the QR below



[bit.ly/ITTONewsletter](http://bit.ly/ITTONewsletter)



## **International Tropical Timber Organization (ITTO)**

5F, Pacifico Yokohama, 1-1-1 Minato-Mirai

Nishi-ku, Yokohama, 220-0012 Japan

(T) +81-45-223-1110

itto@itto.int

(F) +81-45-223-1111

www.itto.int