TFU

Promoting the conservation and sustainable development of tropical forests

ISSN 1022–5439

TROPICAL FOREST UPDATE

Volume 33 No.1 2024

Science and technology: anchoring the drive for sustainable timber

In some parts of the world, political commitment to greening our societies and economies, including the push to tackle climate change, can appear to be wavering. In Europe, for example, leaders have scaled back regulations designed to reduce agricultural subsidies and restore ecosystems in the face of protests from farmers.

But the drive to spread the benefits of development around the world, and to ensure that the resulting prosperity is sustainable, goes on. And as global temperature records continue to tumble, the pressure to reduce greenhouse gas emissions, including from tropical deforestation, and to adapt to the changing climate is as urgent as ever.

Supporting good science and applying it with the help of new technologies are important to maintaining broad social and political support for sustainable development policies and programmes including those designed to foster sustainable forest management and trade in forest products. The collection of accurate data and its careful analysis, for instance, help ensure that these deliver the intended benefits—and make it easier to adjust them when they do not.

This edition of TFU provides several good examples of how science and technology are deeply embedded in ITTO's work, helping its members to bolster their credibility and transparency.

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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 matt coated paper using vegetable-based soya inks.

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Cover image: Tropical wood products from a teak plantation in Thailand. *Photo: Diego Noguera/IISD-ENB*

Above: View of the iconic Landmark tower in Yokohama, Japan. *Photo: R. Carrillo/ITTO.*

The two opening articles, written by the ITTO Secretariat and beginning on p.3, highlight how ITTO is beating the drum for greater investment in science-based sustainable forest management and trade from both the public and private sectors. This includes the prominent participation of ITTO officials at events during the 28th Conference of the Parties to the United Nations Framework Convention on Climate Change and the annual meeting of the International Tropical Timber Council, both of which were held in late 2023. ITTO donor member countries pledged more than USD 6 million in additional funding for a wide range of projects and activities, including the development of blockchain-based timber traceability systems as well as the restoration of degraded mangrove ecosystems, the promotion of sustainable wood consumption in domestic markets and the production of high-quality teak.

The Global Legal and Sustainable Timber Forum, whose inaugural event is featured on p.10, identified the promotion of new technologies among nine priorities for the development of a timber sector based on legal and sustainable forest management and supply chains. Participants at the Forum in November 2023 called for the use of new technologies, tools and methodologies to ensure the legitimacy and sustainability of timber resources, including the implementation of digital timber traceability.

How digital timber tracing systems are being rolled out in Panama is a central element of the article by Consultant Jorge Malleux on p.13. The article details the achievements of one of a series of recent ITTO-funded projects to strengthen monitoring, control and traceability systems amid a wider effort to improve forest governance in the country.

More examples of ITTO field projects are the focus of an article by Suneetha M. Subramanian on p.16. Ms Subramanian, a research fellow at the United Nations University-Institute for the Advanced Study of Sustainability, describes the valuable lessons learned through 14 ITTO-funded projects to advance forest landscape restoration and social and ecological resilience across the tropics.

Science and technology are firmly in the foreground of the article by ITTO Fellow Melita Low on p.20, where she describes how a grant from the Organization has helped her to advance her work to develop a DNA test to identify the species and provenance of Southeast Asia member of the family Dipterocarpaceae. Such advanced timber identification techniques are key to building credible timber tracking systems and a potential weapon for law enforcement agencies battling illegal logging and deforestation.

Tracking systems help tropical timber producers to meet increasingly stringent sustainability and legality standards in both domestic and export markets. In the regular market trends feature on p.23, timber journalist Mike Jeffree profiles the Broader Market Recognition Coalition, an initiative to secure greater access to world markets for tropical timber products from countries with national sustainable forestry systems.

It is evident that science-supported policies, innovations and technology will advance sustainable forest management in the tropics, encourage the use of sustainable wood and wood products and accelerate the transition to circular bioeconomies, which in turn, will benefit the environment and humankind.

At COP28, ITTO appeals for more climate finance for tropical forests

Global community recommitting to 2050 net-zero goal hears how sustainable forest management can advance both mitigation and adaptation

by the ITTO Secretariat

(itto@itto.int)

Spotlighting tropical forests: Officials of ITTO and its partners at a side-event on "Advancing Sustainable Forest Management: Financing Mechanisms for Carbon and Biodiversity" during COP28. *Photo: Angeles Estrada/IISD-EBN*

More funding must flow into sustainable forest management (SFM) to realize the potential of tropical forests to provide urgently needed nature-based solutions to the challenges of climate change and sustainable development.

ITTO amplified this message while participating in numerous events during the 28th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP28), held from 30 November to 13 December in Dubai, United Arab Emirates.

While the conference made headlines for acknowledging the need to shift away from all fossil fuels and agreeing a "loss and damage" fund to compensate poorer states for climate impacts, ITTO and its partners kept a spotlight on the key role of tropical forests in achieving sustainability.

At a side-event on "Advancing Sustainable Forest Management: Financing Mechanisms for Carbon and Biodiversity", ITTO Executive Director Sheam Satkuru noted that tropical forests have struggled to attract the investment needed to maximize their contribution to a host of priorities.

"There is so much more that forests can be acknowledged and recognized for in terms of not just socioeconomic and environmental protection, but also [carbon] sequestration and storage rates," Ms Satkuru said.

Ms Satkuru said it was of "paramount importance" to implement sustainable finance mechanisms for tropical forests to reduce their loss, optimize their management, enrich ecosystem services and boost social and ecological resilience, including for Indigenous Peoples and forest-dependent communities.

While ITTO and other organizations have implemented many SFM, forest landscape restoration and REDD+ projects in the tropics, their capacity is limited by funding from member governments, she said.

As well as more public finance, speakers at the side-event underlined that tropical forests need more investment from the private sector, while policymakers need to redouble efforts to create incentives to reduce investor risk, including through tax reforms and blended finance.

Hwan Ok-Ma, Officer-in-charge, Division of Forest Management, ITTO, talked of SFM as a nature-based solution for carbon emission reduction through timber production enhancement, including practices such as reduced impact logging and wood-based bioenergy. He showcased ITTO's programmatic line on Legal and Sustainable Supply Chains for tropical timber and tropical wood products, illustrating its multiple benefits through an ITTO project[1] that promoted sustainable production of teak in the Greater Mekong. The project improved silvicultural practices, value-addition and marketing benefiting forest-dependent communities. The second phase[2] of the project has just started.

Finance gap

Yasumasa Hirata of the Forestry and Forest Products Research Institute, Japan, said that, by one estimate, public finance for SFM is less than 1 per cent of the USD 460 billion required and is dwarfed by public spending on potentially harmful forest activities.

"Even if all gray public finance flows were redirected to green, finance totals would still fall woefully short," Dr Hirata said. "Therefore, a significant increase in funding for forests is an urgent issue."

1 ITTO Project PP-A/54-331
2 ITTO Project PP-A/54-331A

Advancing forest goals: Forestry officials discussing harvesting plans and practices in Peninsular Malaysia. *Photo: Forestry Department Peninsular Malaysia*

Faiha Azka Azzahira, President of the chapter of the International Forestry Students' Association (IFSA) at LC Universitas Gadjah Mada, Indonesia, emphasized the importance of youth for securing tropical forests and their role in sustainable development.

Young people can contribute through organizations like IFSA, as well as through their communities, their studies and careers, Ms Azzahira said. IFSA members are networking and connecting youth across different regions, advocating for forests and raising awareness.

"The younger generation plays a crucial role in shaping the future. We are the agents of change," she said.

Ms Satkuru said ITTO views youth as "the custodians of the future," and appealed for more young people with an awareness of the need for sustainability to enter the forestry and timber industries.

"There are so many policies, practices, manuals, frameworks and systems—you name it, it's there. But we need people on the ground to make it happen," she said.

The side-event also heard presentations from Oseas Barbarán Sánchez, President of the Confederación de Nacionalidades Amazónicas del Perú (*Confederation of Amazonian Nationalities of Peru*), who called for more direct climate finance for Indigenous Peoples who have shown their ability to manage the ecosystems of the Amazon sustainably; and from Suneetha Subramanian, a Research Fellow at the United Nations University-Institute for the Advanced Study of Sustainability, who described in a video presentation an assessment of fourteen ITTO forest landscape restoration projects (see full article on page 16), in closing she emphasized the relevance of stakeholder consultation for this type of projects.

Advancing the SDGs

ITTO officials also participated in several other events during COP28.

At the side-event "Climate and Canopy Amplifying Action for SDGs 13 & 15 through Primary Forest Conservation", ITTO informed the audience of the signature of a memorandum of understanding between the Organization and the UN Forum on Forests (UNFF) during the 59th session of the International Tropical Timber Council, held in Pattaya, Thailand, in November 2023. The memorandum aims to assist UNFF and ITTO member countries to restore, maintain and sustainably manage tropical forests and promote the sustainable production of timber, non-wood forest products and ecosystem services, as well as to identify, develop and implement joint actions to support achievement of the Global Forest Goals.

ITTO also underlined the wealth of knowledge and experience gained from the implementation of about 1200 field projects across the tropics since it became operational 36 years ago. The projects have promoted the conservation, restoration and sustainable management, use and trade of tropical forest resources. ITTO's capacities represent a valuable resource for accelerating actions that favour the sustainable use and conservation of remaining tropical primary forests.

The objective of the event, jointly organized by the Food and Agriculture Organization of the United Nations, the Global Environment Facility, the International Union for Conservation of Nature and the UNFF, was to foster better understanding and awareness of the importance of primary forests and to explore concrete next steps to champion their conservation and maximize their contribution to Sustainable Development Goals 13 (Climate action) and 15 (Life on land).

SFM supporters: Speakers at the side-event "Sustainable Forest Management for the Mitigation and Adaptation against Climate Change", held at the Japan pavilion. *Photo: S. Kawaguchi/ITTO*

Focus on youth: ITTO Executive Director Sheam Satkuru speaks at the "Dialogue and new experiences for climate action and care of the planet" during COP28. *Photo: S. Kawaguchi/ITTO*

At the Congo Basin Forest Partnership multi-stakeholder dialogue entitled "The Central African Forests, vital global biodiversity and carbon reserves: a major challenge for domestic and international mobilization", ITTO Executive Director Sheam Satkuru highlighted ITTO's longstanding partnership with Congo Basin countries and how its field projects have supported the goals of the Central African Forest Commission (COMIFAC). She said that ITTO stands ready to strengthen collaboration with the Central African Forest Initiative and the Green Climate Fund for the execution of joint projects in support of the Declaration of Commitment of COMIFAC Member States for the Forests of Central Africa and the Call for Equitable Financing.

Sustainable wood use

Meanwhile, in a side-event titled "Sustainable Forest Management for the Mitigation and Adaptation against Climate Change" at the Japan Pavilion, Ms Satkuru explained how sustainable wood use can contribute to climate change mitigation by adding value to forests—a key factor in reducing their conversion to other land-uses.

She highlighted ongoing case studies by ITTO in Indonesia, Malaysia, Thailand and Viet Nam with the aim of strengthening the domestic use of wood as a substitute for less environmentally friendly materials. The use of sustainable wood offers great potential to cut the construction industry's greenhouse gas emissions and assist countries to fulfil their commitments under the Paris Agreement.

Momentum for change

Ms Satkuru also took part in a discussion entitled "Dialogue and new experiences for climate action and care of the planet" organized by the United Nations Development Programme and non-governmental organization Istituto Buddhista Italiano Soka Gakkai at the Italian Pavilion. The discussion focused on how to generate momentum for transformational change, including further engagement with youth.

ITTO also participated in the session "Promoting Robust Sustainable Mangrove Ecosystems Governance" at the Indonesian pavilion and jointly organized by ITTO, the Center for International Forestry Research-World Agroforestry Centre (CIFOR-ICRAF), the Ministry of Environment and Forestry of Indonesia and PT. Nusantara Carbon/PT. Kandelia Alam.

Ms Satkuru moderated the session, where ITTO's Hwan Ok-Ma described ITTO support for the development of a regional strategy for sustainable mangrove ecosystems by the Association of Southeast Asian Nations.

Donors pledge new funds at Council session

The most recent session of the International Tropical Timber Council also discussed the Organization's policy and project portfolio and made a range of decisions

by the ITTO Secretariat

(itto@itto.int)

Food for thought: ITTO Executive Director Sheam Satkuru addresses the International Tropical Timber Council, whose members supported the Organization with an additional USD 6.16 million. *Photo: Nonthaphat Saetan/ITTO*

Convening in its 59th session in Pattaya, Thailand, on 13–17 November 2024, the International Tropical Timber Council made five decisions, including one that endorsed seven new projects and one new pre-project and formalized the financing of five projects and 25 activities, with funding totalling USD 6.16 million.

Other decisions addressed the administrative budget for 2024–2025 (Decision 2(LIX)); the Biennial Work Programme for 2024–2025 (Decision 3(LIX)); the management of the Administrative Budget (Decision 4(LIX)); and matters pertaining to the possible extension of the International Tropical Timber Agreement, 2006 (Decision 5(LIX)).

Of the total amount of donor funds announced during the session, Japan contributed USD 2.01 million, Macao SAR, China, USD 1.53 million, Germany USD 1.41 million, the Republic of Korea USD 579 000, the United States of America USD 551 000 and Finland USD 5000; private organizations Soka Gakkai (USD 75 000) and Kisso-an (USD 2600) also made contributions.[1]

Projects funded

Among other things, these funds will be used in ITTO initiatives to help raise the living standards of communities in the collective territory of Bajo Calima, Colombia, with a focus on gender equality and the empowerment of women [PD 916/21 Rev.2]; conserve African barwood (*Pterocarpus erinaceus*) in the gazetted forests of Palée and Boundiali in the Bagoue region of northern Côte d'Ivoire [PD 808/16 Rev.5 (F) Phase I]; enhance and diversify the domestic consumption of sustainable wood and wood products in Malaysia and promote local markets [PD 935/23 (I)]; strengthen and consolidate Cameroon's national process for addressing illegal logging and associated trade [CN-21009]; and promote community-based restoration and management regimes in cyclone-affected degraded mangrove forests in the Rewa Delta, Fiji [PP-A/59-351].

Funds were also committed for second phases of the Global Timber Index Platform [PP-A/53-323I]; a project to develop blockchain-based timber traceability systems [PP-A/53-323J]; and a project to promote high-quality production of teak and other valuable species in plantations among smallholders and communities in Cambodia, India, Indonesia, Myanmar, Thailand, Togo and Viet Nam [PP-A/54-331A]. The third phase of a project in Togo to support forest landscape restoration led by women's groups [PP-A/56-341B] was financed, along with various other activities in the Biennial Work Programme, such as work to enhance cooperation between ITTO and the Convention on International Trade in Endangered Species of Wild Fauna and Flora. Sixteen young and mid-career forestry professionals (including five women) were awarded ITTO Fellowships, at a total value of USD 107 000. Other projects and activities received partial funding and will commence should the balance of funding be forthcoming.[2]

Under Decision 4(LIX), the Council adopted a trial measure to allow members that are ineligible to submit project proposals and concept notes because of arrears in their assessed contributions to the Administrative Budget to submit one project proposal or one concept note for every two years of arrears paid, provided that a payment plan for the total arrears owed is submitted at the same time. Under Decision 5(LIX), the Council will take a decision without meeting by 1 June 2024 on the question of whether the ITTA, 2006 will be extended for three years to December 2029.

1 Numbers are rounded. Some of the funding indicated here was announced before the Council session.

2 The full list of activities receiving voluntary contributions is contained in Decision 1 of the session, which is available at www.itto.int/council_committees/decisions.

Also during the session, ITTO's executive director and the director of the UN Forum on Forests (UNFF) signed a memorandum of understanding (MOU) to increase cooperation between the two bodies (Box 1).

In his closing remarks on the final day of the session, Council Chair Mohammed Nurudeen Idrissu referred to the Trade and Markets Day (Box 2), conducted on day 2 of the session, as "an extremely important part of the Council's calendar". He informed the Council that all presentations from the Day are available on the ITTO website, and he encouraged delegates to use these resources to help inform decisions and policies in their countries.

"I remind you that ITTO has generated many such resources over its long history," said Dr Idrissu. "We should not undervalue this immense body of work and the extent to which it has helped shaped policies on sustainable forest management and the timber trade globally, nationally and locally."

Dr Idrissu thanked Ms Satkuru for her steadfast guidance over the course of the session, and two retiring members of the Secretariat, Steven Johnson and Hwan Ok Ma, for their outstanding contributions to the Organization over their careers.

The 60th Session of the International Tropical Timber Council will be held in Yokohama, Japan, on 1–6 December 2024.

Together for forests: The directors of ITTO (left) and UNFF signed a new memorandum of understanding to deepen their organizations' cooperation. *Photo: Nonthaphat Saetan/ITTO*

Box 1: ITTO and UN Forum on Forests strengthen cooperation on tropical forests

ITTO and the UNFF Secretariat will work more closely together in assisting tropical countries and stakeholders to conserve, restore and sustainably manage their forests under an MOU signed during the Council session by ITTO Executive Director Sheam Satkuru and UNFF Director Juliette Biao.

The overall objective of the joint initiative is to support UNFF and ITTO member countries to restore, maintain and sustainably manage tropical forests and promote the sustainable production of timber, non-wood forest products and ecosystem services. The two bodies will identify, develop and implement joint actions to support achievement of the six Global Forest Goals and the sustainable development of ITTO producer members, promote capacity building in ITTO producer countries, enhance collaboration with other partners, and increase forest cover in the tropics.

Ms Satkuru said the joint initiative is an opportunity to take advantage of complementarities between ITTO and UNFF.

"Both ITTO and the UNFF Secretariat are strong supporters of tropical countries and their efforts to use and conserve their forests as part of their sustainable development," she said. "We have complementary mandates and approaches, so it makes sense for us to combine forces in areas of mutual interest, thereby magnifying our impacts."

"This MOU is timely and has the potential to enhance the contributions of ITTO country members who are also members of the broader UNFF membership to implement the UN Strategic Plan on Forests 2017–2030 and its Global Forest Goals and other forest-related global agendas," said Dr Biao.

Box 2: Trade and Market Day discusses new European Union deforestation regulation

The European Union's new regulation on deforestation-free and forest-degradation-free supply chains, known as the EUDR, was the topic of lively discussion on the Trade and Markets Day, held during the Council session, with some members and the Trade Advisory Group (TAG) expressing concern about potential consequences of the regulation.

The Council convenes Trade and Markets Day during each session to explore developments and trends relevant to the tropical timber sector. It comprises diverse presentations by experts from around the world and culminates in the Annual Market Discussion, organized by TAG. At the 59th session, the Civil Society Advisory Group (CSAG) also organized a segment of the Day, which (among other things) explored the implications of the EUDR for smallholders and community forestry.

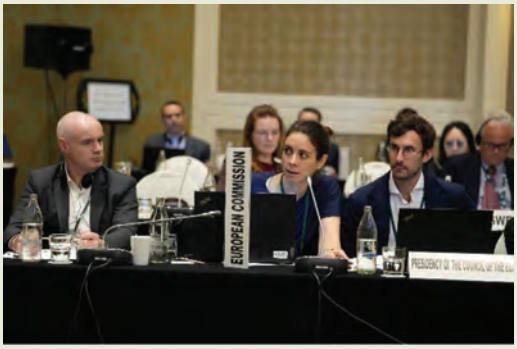
Speaking during the CSAG segment, Laurent Lourdais from the Delegation of the European Union to Thailand provided an overview of the EUDR. He said the expansion of agricultural land is the main driver of deforestation and this, in turn, is strongly linked to the production of agricultural commodities. The EUDR is designed to exclude from European Union markets commodities linked to such deforestation and also to forest degradation. The EUDR entered into force on 29 June 2023, and its obligations for operators and traders will apply from December 2024.

Mr Lourdais said the EUDR creates mandatory due-diligence rules for all operators that place relevant products on the European Union market or export them from the European Union. One of the requirements is strict traceability linking the commodity to the plot of land where it is produced. A benchmarking system will assign risk categories to countries or regions according to the risk of deforestation, for which data-gathering would start soon.

Also speaking during the CSAG segment, Chandra Silori, Deputy Executive Director of RECOFTC, which works with community forestry groups in the Asia-Pacific region, outlined some of the challenges the EUDR presents to smallholders. For example, they will likely be asked to provide more information than before, such as on the geolocation of their land, and there will be more scrutiny on whether they are complying with national laws and regulations.

"We see this regulation as promising for reducing deforestation and forest degradation and promoting biodiversity conservation and meeting the [Sustainable Development Goals], but there are many challenges on how these will be applied on the ground, especially for smallholders," Dr Silori said.

This point was touched on by Stephen Midgley, speaking during the Annual Market Discussion. He said the EUDR and other trade-related regulations cause headaches for small growers, increasing costs for which they are not compensated.



Hot topic: European Union delegates fielded questions about the impact of bloc's new deforestation regulation during the Council's Trade and Market Day. *Photo: Nonthaphat Saetan/ITTO*

Franz-Xaver Kraft and Nils Olaf Peterson of The German Timber Trade Federation presented on the implications of the EUDR for timber importers in Europe. For example, anyone can submit "substantiated concerns" about non-compliance that authorities must investigate. Mr Kraft said this was a double-edged sword. On the one hand, non-governmental organizations might be able to help in detecting actual cases of non-compliance with the EUDR. There was fear, however, that use of the provision could hinder imports and disrupt legitimate trade.

Mr Kraft forecast that, for large tropical timber companies, compliance with the EUDR should not present major challenges because they are already well prepared. But it will be a significant challenge for smallholder producers to comply.

ITTO members that made interventions related to the EUDR during Trade and Markets Day included Brazil, New Zealand, Peru, the United States of America and Viet Nam, in addition to the European Commission. Issues raised from the floor included:

- the potential impacts of the EUDR on smallholders, who may lack the technologies and even literacy needed to comply with the regulation;
- the difficulties presented by complex supply chains for many timber products;
- whether the replanting of a forest destroyed by wildfire would constitute deforestation (or forest degradation) under the regulation;
- the short timeframe for implementation of the EUDR; and
- whether the EUDR made the European Union's Forest Law Enforcement, Governance and Trade (FLEGT) voluntary partnership agreement (VPA) process redundant.

Daily highlights of the session and presentations are available at www.itto.int/ittc-59

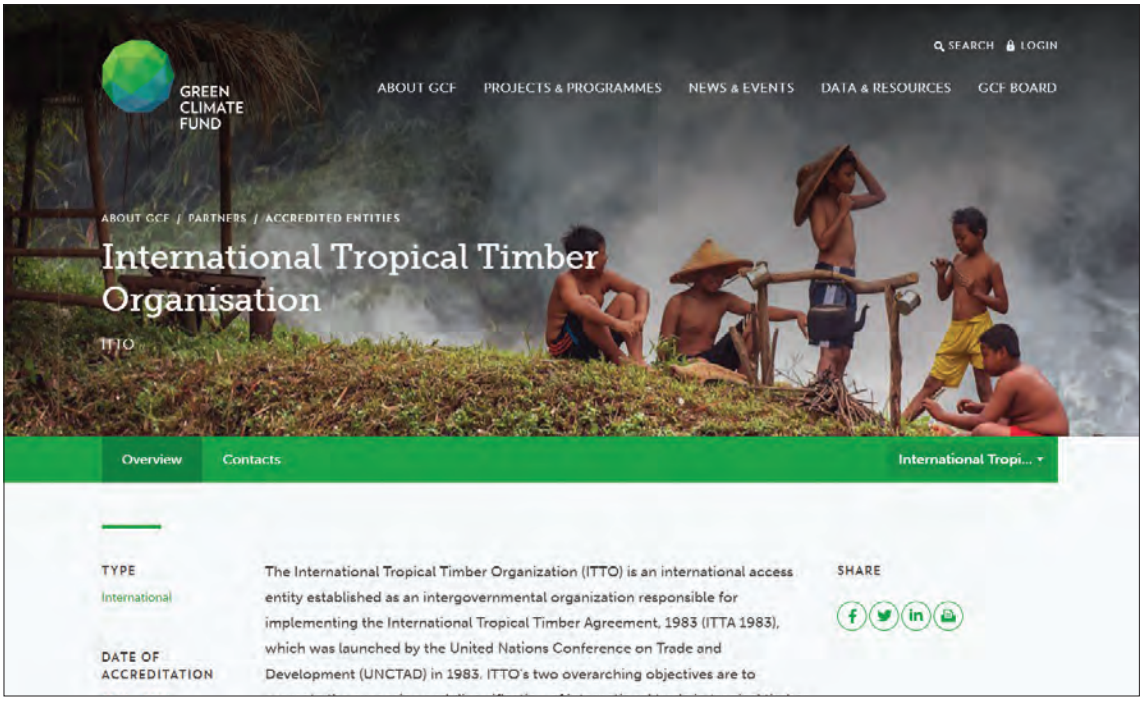
Daily coverage of the session by the International Institute on Sustainable Development's Earth Negotiations Bulletin is available at https://enb.iisd.org/ittc59-international-tropical-timber-council

ITTO secures Green Climate Fund accreditation

With its successful application, ITTO has become one of 128 Green Climate Fund partners channelling resources to climate projects in developing countries

by ITTO Secretariat

(itto@itto.int)



Onboarded: ITTO is now listed as an Accredited Entity on the website of the Global Climate Fund. *Photo: GCF website*

The Green Climate Fund (GCF) has approved ITTO's application for accreditation, opening the way for the Organization to become an official partner in channelling GCF resources to climate projects in developing countries.

The GCF Board gave ITTO's application the green light at its 38th session in Kigali, Rwanda on 5 March 2024. ITTO is now a GCF Accredited Entity (AE) and fully meets GCF requirements, including its specialized fiduciary standard for project management. GCF now has a total of 128 AEs.

GCF invests in climate-change mitigation and adaptation with the goal of driving a paradigm shift towards low-emission and climate-resilient development pathways. AEs may develop funding proposals for GCF consideration and oversee, supervise, manage and monitor their GCF-approved projects and programmes. The GCF's project portfolio is valued at more than USD 11 billion.

Optimistic outlook

"This accreditation is an excellent milestone and wonderful news for ITTO and its members because it confirms that ITTO is now a GCF-approved international organization enabled to execute GCF projects in line with the GCF's Strategic Plan 2024–2027, ITTO's governance structure and the ITTO Strategic Action Plan 2022–2026," said ITTO Executive Director Sheam Satkuru. "This provides grounds for optimism for ITTO's future in addressing members' priorities that can be supported by the GCF. Moving forward, ITTO will work very closely in consultation with the GCF and member countries to identify priority areas of work for the GCF's consideration, focusing on the achievement of results on the ground."

With GCF, ITTO aims to propose programmes to scale up forest landscape restoration and increase the provision of goods and services from planted and restored forests in ITTO tropical member countries, and to advance legal and sustainable supply chain for tropical timber.

Watch the streaming video of ITTO's accreditation by clicking agenda item 11 to start the video. ITTO's accreditation starts at 00:52:40 at www.greenclimate.fund/boardroom/meeting/b38#videos.

For more details, visit https://www.greenclimate.fund/ae/itto

Strategies for sustainable development of timber sector identified

Nine actions should be taken to ensure the sector's future, say participants in the inaugural Global Legal and Sustainable Timber Forum

by the ITTO Secretariat

(itto@itto.int)

Putting heads together: View of the plenary on the opening of the 2023 Global Legal and Sustainable Timber Forum. *Photo: GGSC/IPIM/ITTO*

Timber is a crucial material for a sustainable future, according to around 700 participants from governments, enterprises, international organizations and research institutions at the inaugural Global Legal and Sustainable Timber Forum (GLSTF), which issued a set of nine actions to ensure the stability of the timber sector's future based on legal and sustainable forest management and supply chains.

The Forum, convened jointly by ITTO and the Macao Trade and Investment Promotion Institute in collaboration with the Global Green Supply Chain Initiative (GGSC) and held in Macao SAR, China, on 21–22 November 2023, aimed to bring together key players in the global timber sector and map a course for its sustainable development.

"Timber is an environmentally friendly, renewable, carbon-storing, recyclable material and thus a pillar of sustainability when produced, processed, traded and used legally and sustainably," said ITTO Executive Director Sheam Satkuru during the Forum. "We believe in the benefit of bringing all stakeholders in the sector together because forests and timber are vital for the planet's future."

The world is facing many challenges, such as economic volatility stemming from the aftermath of the COVID-19 pandemic, global conflicts, trade wars, rising energy prices, climate change, biodiversity loss and resource pressure.

But Forum participants agreed that such challenges present opportunities for timber to become a cornerstone of circular bio-economies.

A sustainable and resilient timber industry, it was asserted, would not only contribute to wealth creation but also support healthy lifestyles and reduce the risk of climate change. The sustainable use of timber can also help conserve biodiversity, soil and water, store carbon, preventing land degradation, and reduce the risk of disasters.

Nine key actions

After two days of presentations and discussions, consensus emerged among participants about key strategies to promote the legal and sustainable development of the global timber industry and accelerate its recovery. These included the following nine key actions:

1) **Strong networks and partnerships:** there is an urgent need for strong networks and partnerships built on mutual respect and trust to support legal and sustainable forest management and timber supply chains.

2) **Nature-based solutions:** building and improving legal and sustainable timber supply chains should be recognized as key nature-based solutions to local-to-global challenges.

3) **Trade promotion:** the trade of legal and sustainable timber products should be promoted in a stable, fair, transparent and predictable environment to enable the recovery and growth of the global timber industry.

4) **Global Legal and Sustainable Timber Forum:** the Forum is a necessary platform for scaling up cooperation and information exchange between the public and private sectors and should be held annually.

5) **Global Timber Index:** this initiative, which has been piloted for about a year and was launched officially at the Forum, improves the quality and regularity of timber market information, encourages greater information exchange in the private sector, and enhances the efficiency of policy formulation. It should be continued and scaled up.

Forest leaders: ITTO Executive Director Sheam Satkuru (third from the left) and other speakers at the high-level segment of the Forum.
Photo: GGSC/IPIM/ITTO

6) **Advanced technology and traceability:** the use of new technologies, tools and methodologies should be encouraged to help ensure the legitimacy and sustainability of timber resources, including the implementation of sustainable forest management and digital timber traceability.

7) **Financial mechanisms:** innovative financial mechanisms, such as payments for ecosystem services, should be further developed and used to increase investment in support of sustainable forest management and sustainable supply chains.

8) **Timber industrial parks:** legal and sustainable timber industrial parks should be established to incubate enterprises as models for the wider industry, thereby accelerating the adoption of best practices and advanced technologies.

9) **Support:** the global timber industry requires more support for adopting advanced technologies as a means for accelerating its sustainable development.

At its conclusion, the Forum urged participants to continue working together by connecting, cooperating and sharing knowledge. The inaugural GLSTF, planned to be an annual event, has emerged as a cornerstone for building this global network.

The Global Legal and Sustainable Timber Forum 2024 is scheduled to be held on 11–12 September 2024 at the MGM Cotai resort, Macao SAR, China. For more details, see the announcement on page 12.

Global Legal and Sustainable Timber Forum 2024

11–12 September 2024, MGM COTAI resort, Macao SAR, China

Recent developments have underlined the need for the timber industry to intensify collaboration among stakeholders including producers, buyers, processors and market players both nationally and internationally. The industry must address supply chain issues left by the COVID-19 pandemic and other uncertainties and bridge the widening gap between demand and supply for wood products. Building a collaborative platform for the promotion of legal and sustainable timber supply chains can play an important role in sustaining and enhancing cooperation and the exchange of views and information. As part of ITTO's Legal and Sustainable Supply Chain (LSSC) Programme, the Organization and the Macao Trade and Investment Promotion Institute (IPIM) have entered into a collaborative framework agreement to co-host annually the Global Legal and Sustainable Timber Forum (GLSTF) to accelerate the pursuit of this goal.

The inaugural Forum, GLSTF 2023, was held in November 2023 in Macao SAR, China, in collaboration with the Global Green Supply Chains Initiative (GGSC). The first global forum on how to improve the legality and sustainability of tropical timber supply chains, GLSTF 2023 brought together nearly 700 participants from 36 countries (see article on p. 11). GLSTF 2024 has now been scheduled to take place in September 2024.

Objective

GLSTF 2024 aims is to increase networking, collaboration and business exchange among timber industry stakeholders with a view to promoting sustainable forest management, creating legal and sustainable wood product supply chains, facilitating the legal and sustainable use and trade of wood products in a stable, transparent and predictable business environment, and contributing to sustainable development and climate-change mitigation.

Date and venue

GLSTF 2024 is scheduled to be held on 11–12 September 2024 at the MGM COTAI resort, Macao SAR, China.

Co-hosts and organizer

The Forum will be co-hosted by ITTO and Macao IPIM and organized by the GGSC Secretariat. Specialized sub-forums will be co-organized by partner agencies; ITTO, IPIM and the GGSC Secretariat may also organize sub-forums.

Forum structure

Like the inaugural event, GLSTF 2024 will have two components:

1) The Global Legal and Sustainable Timber Forum (main forum)

2) Four specialized sub-forums

Theme and topics

The theme of GLSTF 2024 will be "Together Towards Reliable and Effective Global Timber Supply Chains".

The main forum will discuss topics related to reliable and stable timber resource supplies, trust and effectiveness along timber supply chains, and prospects for revitalizing global timber supply chains.

Specialized sub-forums organized by partner agencies will contribute to the theme, with selected topics related to timber legality and sustainability; sustainable timber resources, markets and trade; advanced technology and machinery for wood processing; and green finance and innovative facilitating measures.

Legal and sustainable timber industry exhibition

A legal and sustainable timber industry exhibition will be organized in parallel with GLSTF 2024 with around 30 booths.

Other events and activities

The achievements of initiatives including the Global Timber Index and work to create blockchain-based timber tracking systems will be presented at GLSTF 2024. Other activities and side-events, such as B2B matchings, will be arranged accordingly.

Participants

GLSTF 2024 is expected to attract around 700 representatives of stakeholders including wood enterprises and trading companies, industrial and business associations, governments, international organizations and research institutions.

Languages

The Forum will feature simultaneous interpretation in Chinese (Mandarin), English, French, Spanish and Portuguese.

Details of the venue, registration procedures and accommodation will be posted on ITTO's website in due course at www.itto.int/events. For more information contact also: ITTO Mr Li Qiang at li@itto.int; IPIM Mr Steve CHAN at pcel@ipim.gov.mo; or GGSC Secretariat Ms Gao Xuting at gaoxuting@itto-ggsc.org.

Strengthening forest governance in Panama

ITTO projects have advanced sustainable forest management and supported far-reaching changes in Panama's forest policy

by Jorge Malleux

Consultant
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Operational and sustainable: The STCP is already operational in the Darien region and the Government of Panama is planning to expand it across the country. *Photo: R. Carrillo/ITTO*

Panama has been a regular recipient of ITTO support for the sustainable management of tropical forests, with several inter-related projects implemented in recent years. The impact of these projects is evident in many areas, including in strengthened national forest governance, monitoring and policy as well as greater awareness among local communities and the private sector of the value of well-managed forests.

This article focuses on the achievements of a project to strengthen the management capacity of Panama's Ministry of Environment (MiAmbiente) to reduce illegal logging and trade in the eastern Bayano and Darien regions of the country.[1] Funded through the ITTO Thematic Programme on Forest Law Enforcement, Governance and Trade, the project was implemented between 2016 and 2019 by WWF and the ministry. The article summarizes the findings of an ex-post evaluation conducted from July to September 2023 and presented at the 59th Session of the International Tropical Timber Council in November 2023.

National effort

The government of Panama has been working for many years to improve forest governance in the country. Following a 2003 government directive declaring principles and guidelines for the country's forestry policy, the National Environmental Authority (ANAM)[2] issued the National Forest Development Plan in 2008 with an aim to achieve sustainable forest development.

The plan resulted from an analysis of the country's needs and of the institutions responsible for forest management. It includes several programmes, including the Forest Administration Programme, which proposed actions to improve oversight and control, monitoring, and the increased participation of stakeholders in the timber production and marketing chain.

The plan also gave rise to a programme to promote community forest management, with financial support through an ITTO project[3] that extended the area under sustainable forest management in the forest lands of the Emberá-Wounaan Comarca, an Indigenous people in Darien province, which was implemented by WWF between 2009 and 2011. Within the framework of this project, an analysis of the institutional, administrative, economic and social factors leading to illegal logging in Eastern Panama was carried out and a draft strategy for its prevention and control was produced.

The strategy[4], which drew on consultations with a wide range of stakeholders, underscored the urgency of strengthening forest governance in the region, and was in line with other forest development initiatives promoted by ANAM with the support of ITTO and donors including the United States and the European Commission. Another of its key aims was to bring 350 000 hectares under sustainable forest management to meet the demand for raw materials from local forest industries.

Following the strategy described above, the ITTO project to strengthen MiAmbiente's management capacity focused on systems of monitoring, control and traceability as well as forest law enforcement, with the overarching goals of improving forest governance and countering forest degradation from illegal and unsustainable activities.

1 Project TFL-PD 044/13 Rev.2 (M): "Strengthening of ANAM's management capacity to reduce illegal logging and trade in the Eastern Region of Panama (Bayano and Darien) through monitoring and control mechanisms."

2 The National Environmental Authority (*Autoridad Nacional del Ambiente* (ANAM)) became the Ministry of Environment (MiAmbiente) in 2015.

3 PD 405/06 Rev. 3 (F): "Extending the area under sustainable forest management in the forest lands of the Emberá-Wounaan Comarca, Darien, Panama."

4 The National Forestry Strategy 2018-2050, approved by Decree No 20 (Gaceta Oficial Nº 28.745, 2 de abril de 2019), also aims to increase forest cover, stimulate the sustainable forestry industry, conserve forest heritage and mitigate the effects of climate change.

Corroborating the system: The author (second from the right) verifying the operation of the STCF. *Photo: J. Malleux*

Monitoring and verification

Central to the project outcomes was the establishment of a forest monitoring and verification system (*Sistema de Trazabilidad y Control Forestal* (STCF)) to close off avenues for illegal timber harvesting. The system was piloted in Darien and Eastern Panama with the goal of replicating it in other regions.

STCF involves the identification of individual trees in forest inventories and the tracking of harvested logs and pieces using electronic chips attached to each tree. The system also records data on logging permits, transport waybills and generates geolocated statistical data for monitoring and decision-making in sustainable forest management.[5]

In the pilot regions, STCF enabled the monitoring of flows of legal timber from both natural and planted forests through storage yards and processing facilities to wholesalers. It streamlined the issuing of permits and the clearing of shipments along transport routes. The system also created more transparency in the management of forest resources, fostering its acceptance among users and other stakeholders.

The government aims to replicate STCF, which was linked to the country's integrated control system under a decree issued in 2018, in other regions. In 2023, the Ministry of Environment initiated a training programme for technical staff across the country on the application of the system.[6]

Kicking-off the evaluation: The author (second from the left) and project staff visiting the office of Panama's vice-minister of environment (third from the left) to launch the evaluation. *Photo: J. Malleux*

Multiple outcomes

As well as building capacity for STCF, the ITTO project trained and equipped staff at MiAmbiente and the new National Forest Directorate to enable them to monitor forest management units in remote regions, including using aerial drones.

The project's area of direct influence was extended[7] to the Panamanian section of the Choco Darien Ecoregional Complex, a region where 42.8% of Panama's native forests are located, over 80% of them in Indigenous territories.

Another important outcome was the establishment of a network for trading legal timber. The Network for Legal Timber was established with 11 organizations that signed commitments to adopt responsible purchasing policies.

The project also had an important catalytic effect in helping Panama attract strategic partners as well as additional funding and technical support for larger forest-related projects by the Global Environment Facility and the Food and Agriculture Organization of the United Nations.

The strengthened systems have helped communities to better understand the condition of their forests and the value of sustainably produced timber. This has improved their ability to negotiate with third parties and led to improvements in their income from forestry activities, thus further incentivizing the conservation of forest resources.

Civil society also participated in the project through the Forest Oversight Programme *(Programa de Veeduría Forestal)*, which was formally adopted by MiAmbiente. The programme provides a mechanism for individuals, community organizations and civil society groups to monitor forest management.

5 For details of the system, see also the article beginning on page 13 of TFU 29-1, available at: www.itto.int/tfu/back_issues

6 www.miambiente.gob.pa/miambiente-actualiza-a-tecnicos-en-trazabilidad-del-sistema-forestal-en-panama-oeste/

7 With respect to the objectives established by ANAM, this project has contributed to an improvement in the incorporation of at least 350 000 hectares of natural forests into a sustainable forest management regime in the Darién region.

Talking legal trade: The author consulting representatives of Orozco enterprises, a Panamanian timber company. *Photo: J. Malleux*

Sustainable impacts

Many outcomes of the ITTO project have proven to be sustainable. The building of MiAmbiente's technical capacity has been effective in strengthening and consolidating national efforts to improve forest sector governance and combat illegal logging, as well as in building responsible institutions both at the national and regional levels. The STCF has also been improved.

In addition, the STCF has had a positive impact on forest communities, which now understand better the condition and value of their forests. This has given them tools to negotiate more effectively with other parties, leading to improvement of their incomes and the management of their forest management units.

In a further demonstration of ITTO's support for SFM and good forest governance in Panama, a follow-up project[8] aims to further strengthen forest monitoring in the country, extend the STCF's coverage nationwide, implement a scheme of simplified forest management plans, and strengthen the legal timber network.

The summary of the ex-post evaluation report is available as document CEM-CFI(LVII)/4 at www.itto.int/council_committees/documents/?pageID=2. The full ex-post evaluation report (in Spanish) is available upon request from the ITTO Secretariat at ti@itto.int

Outputs of the projects mentioned in this article can be found by inserting the project codes into the ITTO project search function at www.itto.int/project_search.

8 PD 913/20 Rev.4 (M) "Strengthening Forest Monitoring and Extending the Coverage of The Traceability System in Panama".

Advancing forest landscape restoration in the tropics

A new report examines experiences gained and lessons learned on enhancing socioecological resilience in ITTO projects

by Suneetha M. Subramanian

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Hands-on approach: Women working to restore a degraded forest landscape in Togo. *Photo: Soka Gakkai*

Landscape restoration is focused on rejuvenating the ecological integrity of a landscape to benefit both its human and natural components economically, environmentally and socially. As an integrated strategy, it aims to holistically address issues of land degradation, making clear linkages between underlying and direct drivers and the state of the landscape (Sabogal et al, 2015; UNEP and FAO, 2022). These drivers derive from natural events, but several are linked to political, economic and socio-cultural decisions made by various actors operating in the landscape (Nishi and Subramanian, 2023). Hence, landscape restoration is also a vehicle for deliberation between stakeholders regarding multiple use priorities of land and resources. It is also an exercise in identifying which ones could lead to sustainable outcomes and lower trade-offs.

Following this concept, forest landscape restoration (FLR) is an ongoing process of regaining ecological functionality and enhancing human wellbeing across degraded and deforested forest landscapes. It focuses on active participation, adaptive management and the establishment of a consistent monitoring framework (ITTO, 2020; IUCN et al, 2023). It is also an effort to ensure that all stakeholders, from local communities to businesses and policymakers, are fully involved in the design and implementation of FLR-related activities. This affirms that everyone in the landscape is engaged in practices aligned with sustainability that would minimize the risks of negative trade-offs and conflicts over potential land uses.

ITTO offers guidance on principles of FLR developed by the Global Partnership on Forest and Landscape Restoration. The six principles are:

1. Ensure the focus is kept on entire landscapes rather than individual sites
2. Engage stakeholders and support participatory governance
3. Restore multiple landscape functions for multiple benefits
4. Maintain and enhance natural forest ecosystems within landscapes
5. Tailor interventions to local contexts
6. Manage adaptively for long-term resilience

Using these principles, ITTO has been fostering FLR by supporting its implementation through field projects in different countries.

This article presents findings from a joint policy report published by United Nations University-Institute for the Advanced Study of Sustainability (UNU-IAS) and ITTO[1] analyzing case studies of 14 ITTO-funded projects across the tropics (see Table 1) to identify lessons regarding the effectiveness of FLR in achieving socio-ecological resilience as well as challenges encountered in its design and implementation. This report also examined how well gender considerations were included in project activities.

The main implementing agencies for the projects were forestry-related institutions. Their primary interest was to conserve forest species and native germplasm and maintain or enhance forest ecosystem integrity within the broader pursuit of forest restoration. Most projects adopted a landscape approach factoring in the necessity to include other land uses around the forest ecosystem, and working with other stakeholders including local communities, academics and other departments to identify solutions that work for all actors. In the process, emphasis was placed on stakeholder consultations, training for youth and women members of communities to address their motivations and, importantly, co-designing options to augment livelihood through better cropping practices and opportunities to add value.

1 The full report, titled "Advancing Forest Landscape Restoration in the Tropics: Experiences and Lessons for Socio-Ecological Resilience and Empowerment of Women in ITTO Projects", is available at: www.itto.int/other_technical_reports/

Landscape approach: An ITTO-supported project in the Cibodas Biosphere Reserve, Indonesia, was one of 14 analyzed in the new report. *Photo: Anggia Ananda*

Table 1: ITTO projects analyzed in the report and their main focus areas

Project title/area	Country (code for site)	Focus activities
Sustainable management of production forests at the commercial scale in the Brazilian Amazon	Brazil (BRA)	Develop a software application and platform to monitor and manage sustainable forest management with data integration and stakeholder collaboration
Increasing commercial reforestation competitiveness in Costa Rica	Costa Rica (CRA)	Community livelihood development and enhancing competitiveness of commercial reforestation through an effective financing system
Community-based restoration and sustainable management of vulnerable forests of the Rewa Delta, Viti Levu	Fiji (FJI)	Tackle illegal trade in wood and non-wood products and strengthen the governance framework for sustainable mangrove management
Sustainable pure and mixed forest plantation development in the transitional zone of Ghana's Biakoye district assembly, employing poverty reduction strategies	Ghana (GHA)	Promote planting of mixed indigenous timber species of commercial value and support development of intercropping of staple food crops
Encouraging customary landowners in the lowlands of Papua New Guinea's Central Province to reforest their grasslands with high value trees	Papua New Guinea (PNG)	Community reforestation through customized training, awareness raising and support, including forestry using well-suited species and food crop production
Development of a regional strategy for the restoration and rehabilitation of degraded areas on the south coast of Peru	Peru (PER)	Develop a land management tool to improve environmental and socioeconomic conditions through restoration of degraded lands and sustainable forestry and agroforestry systems
Improving forest functions in Bengkulu Province through community participation in rehabilitation of degraded forests by using local prospective commodities	Indonesia (IND-B)	Implement appropriate technology for production of quality planting materials, and improve stakeholder involvement and community wellbeing through forest and land rehabilitation
Initiating the conservation of Cempaka species through plantation development with local community participation in North Sulawesi	Indonesia IND (C)	Focus on enhancing Cempaka species restoration and production through community participation
Accelerating the restoration of Cibodas Biosphere Reserve functions through proper management of landscapes involving local stakeholders	Indonesia IND (CBR)	Address inadequate conservation and sustainable management of biodiversity and ecosystems in the biosphere reserve through integrated strategic management plans involving stakeholders in the landscape
Capacity building on forest and land fire management in Indonesia	Indonesia (IND-FM)	Participatory approaches to prevent forest fires engaging multiple stakeholders
Enhancing the implementation of landscape management of Giam-Siak Kecil-Bukit Batu Biosphere Reserve (GSK-BR) in Riao Province of Sumatra Island, Sumatra, Indonesia	Indonesia (IND-GSK)	Sustainable management and conservation of the biosphere reserve, strengthening of institutional capacity, enhancing of stakeholder partnerships
Support for women's groups with the restoration of forest landscapes in the Prefectures of Blitta and Lacs, Togo	Togo (TGO-BL)	Food security, energy security and income generation from wood and non-wood products, empowering women groups
Support for operational and planning capacity building for stakeholders in the private and community forestry sector in Togo	Togo (TGO-CF)	Enhance forest cover of Togo by 30% by 2050
Enhancing conservation and sustainable management of teak forests and legal and sustainable wood supply chains in the Greater Mekong Sub-region	Thailand, Myanmar, Lao People's Democratic Republic, Cambodia, Viet Nam (MKG)	Conserve natural teak forests and enhancing teak plantation forests, strengthen community- based forestry and agroforestry activities, and enhance regional and international collaboration for information sharing, networking and policy development

Based on their completion reports, the 14 projects were assessed against the FLR principles. They were scored on their design, implementation and outcomes. Broad trends and gaps in implementing FLR were identified (see Table 2).

The analysis shows that the projects incorporated FLR principles in most respects. However, they were less consistent in their reflection of gender priorities.

Challenges for FLR

The most common challenges to successful FLR implementation identified across the case studies include: poverty resulting in overexploitation of forest resources, or unsustainable production practices that adversely impact forest ecosystems; poor law enforcement to check environmental degradation and enhance forest conservation; inadequate capacities, skills and awareness about FLR among stakeholders from policymakers to local communities; disputes and consequent lack of trust between stakeholders requiring measures to build confidence, capacity and awareness; rural migration in search of better economic opportunities that deprives the landscape of manpower and skills; and poor resources and infrastructure including human, technical and financial resources (see Table 3).

Addressing these challenges through consultative and deliberative processes is key to ensuring that the complex interdependencies between people and nature in the forest landscape are well factored into the design of FLR interventions. This enables the achievement of enhanced socio-ecological resilience, a broader pursuit that calls for engagement and consultations with diverse stakeholders in a landscape, mapping and taking stock of resources and ecosystem integrity, co-designing management plans and decisions on the use of land- and seascapes that factor in specificities (e.g. culture, economy, demography, gender, natural assets) and thereby minimize negative trade-offs.

The analysis also helped to identify critical areas to focus on to ensure FLR interventions can be effective, including:

- Investing in education and awareness-raising on FLR-related practices across stakeholder groups
- Meaningful community-level consultation to co-design interventions
- Building trust and consensus among stakeholders
- Identifying socio-ecological resilience and wellbeing issues
- Identifying and supporting the development of alternative economic activities
- Establishing joint monitoring and assessment teams between state and non-state actors
- Setting up systems of rewards and incentives for good practices to encourage uptake of concepts and practice of FLR
- Ensuring greater representation of marginalized groups, especially women and youth, to address their priorities and further assure the process of FLR is equitable and just

Table 2: Incorporation of FLR principles in the projects (X = Low, XX = medium, XXX = high)

Principle	BRA	CRA	FJI	GHA	IND-B	IND-C	IND-CBR	IND-FW	IND-GSK	PNG	PER	TGO-BL	TGO-CF	MKG
Focus on landscapes	XXX	XX	XXX	XXX	X	X	XXX	XXX	XX	X	XXX	XXX	XX	XXX
Engage stakeholders and participatory governance	XXX	XXX	XXX	XXX	XXX	XX	XXX	XXX	XXX	XX	XXX	XXX	XXX	XXX
Restore multiple functions for multiple benefits	XX	XX	XXX	XXX	XXX	X	XXX	XX	XX	XXX	XXX	XXX	XX	XX
Maintain and enhance natural forest ecosystems within landscapes	XX	XX	XXX	XXX	XXX	X	XXX	XXX	XXX	XX	XXX	XXX	XXX	XX
Tailor to the local context using variety of approaches	XXX	XX	XXX	XXX	XX	X	XXX	XXX	XXX	XX	XXX	XXX	XXX	XXX
Manage adaptively for long-term resilience	XX	XX	XXX	XXX	XX	XX	XXX	XXX	XX	XX	XXX	XX	XXX	XXX
Gender priorities		X	XXX	XX					X		XXX	XXX	XXX	

Table 3: Challenges encountered in FLR project implementation

Challenges identified	BRA	CRA	FJI	GHA	IND-B	IND-C	IND-CBR	IND-FW	IND-GSK	PNG	PER	TGO-BL	TGO-CF	MKG
Poverty		X	X	X	X	X				X	X	X	X	X
Poor enforcement			X		X				X					
Lack of capacity and awareness, information	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Poor resources, infrastructure					X			X		X				
Disputes between stakeholders			X				X		X					X
Rural migration linked to poverty on site				X								X		

Community-based approach: A Nasilai woman plants an indigenous fruit tree behind a mangrove forest. *Photo: Aporosa Ramulo Livani, Ministry of Forestry, Fiji*

From a research and policy standpoint, the findings from the study show the need to promote transdisciplinary approaches, encourage multi-stakeholder discussions on socio-ecological resilience, embed FLR principles in all forestry-related implementation policies, design and implement appropriate capacity development programmes, and ensure that principles of equity, including gender-sensitive plans, are deeply entrenched in policy plans and programmes.

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Two new directors appointed to ITTO Secretariat

ITTO Executive Director Sheam Satkuru has appointed Jennifer Conje and Mohammed Nurudeen Iddrisu as directors of the Division of Forest Management and the Division of Trade and Industry, respectively. Ms Conje and Dr Iddrisu both took up their appointments in February.

Ms Conje, a national of the United States of America, was previously Assistant Director of Policy – International Programs at the United States Department of Agriculture Forest Service. She has worked on forest policy and project development for more than 23 years, spanning issues such as illegal logging, climate change, forest products trade, biomass, and conservation. She was Chair of the International Tropical Timber Council in 2016 and has also served the Council in various other capacities. She recently finished a two-year term as Chair of the Asia Pacific Economic Cooperation Experts Group on Illegal Logging and Associated Trade.

Dr Iddrisu, a national of Ghana, was previously with the Ghana Forestry Commission, where he held several positions, including Executive Director of the Timber Industry Development Division and Director of Operations. He has worked in the forest sector for about 30 years, involving teaching, academic research and work with smallholders, the timber industry, regional and state governments, and national (federal) programmes. He has a master's degree

in forest resource management from the University of Pinar del Río, Cuba, and a doctorate in forest genetics from the University of British Columbia, Canada. He was Chair of the International Tropical Timber Council in 2023 and has also served the Council in different capacities.

Ms Satkuru said she was delighted to bring such a wealth of experience into the Secretariat.

"Both Jennifer and Nurudeen are highly experienced and talented professionals with a longstanding commitment to international cooperation," she said. "Both have also shown a deep understanding of ITTO and a passion for its mission. I welcome them to the Secretariat and look forward to working with them."

The appointments follow the retirement of two experienced ITTO staff members, Steven Johnson and Hwan Ok Ma.

Using genetics to identify dipterocarps in Southeast Asia

An ITTO Fellow is developing DNA tests to identify the species and geographic provenance of Southeast Asian members of the family Dipterocarpaceae

by Melita Low

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Spreading knowledge: ITTO Fellow Melita Low presented findings from her research at the IUFRO Div 5 Conference in Cairns, Australia in June 2023. *Photo: Trinh Huynh*

My journey to tropical timber research was not direct and started with a Bachelor of Science majoring in botany, zoology and ecology; an honours year exploring chemical uptake in fish ear bones; three years scuba diving with giant Australian cuttlefish investigating their population structure; followed by ten years assessing and managing environmental impacts in aviation, mining and integrated water management.

Driven by a resolute desire to return to research and a serendipitous conversation with a friend from my university days, I became interested in the timber tracking work coming out of the Advanced DNA, Identification and Forensic Facility at The University of Adelaide. I particularly loved the applied nature of the science and its use in the fight against illegal logging in addition to providing industry with a tool to control their supply chains and demonstrate legal and sustainable practices. Upon discovering there was still work to be done for tropical rainforests in Southeast Asia, I commenced a PhD supervised by Andy Lowe and Eleanor Dormontt from the University of Adelaide, Alison Shapcott from the University of the Sunshine Coast and Ed Biffin from the State Herbarium of South Australia, developing a DNA timber tracking system for Southeast Asian species in the plant family Dipterocarpaceae.

I was grateful to receive the ITTO Fellowship early in my PhD journey and commenced my fellowship activities in 2021. This support enabled me to complete the genetic work necessary for my project as well as to publish a review paper and attend an international conference.

Borneo in focus

It is estimated that 15–30% of traded timber worldwide is illegal, meaning it is harvested, processed and/or traded inconsistently with national and sub-national laws. In tropical regions such as Southeast Asia, the Amazon Basin and Central Africa, 50–90% of timber may be illegal (Nellemann & INTERPOL 2012).

A particular focus has been Borneo, the third-largest island in the world and a biodiversity hotspot for flowering plants, trees, terrestrial mammals and birds. The island, which is divided among the countries of Brunei Darussalam, Indonesia and Malaysia, has been logged since 1970 (Gaveau et al. 2014) and has experienced some of the most intensive logging ever recorded in a tropical forest. One study reported that between 1980 and 2000 more wood was harvested from Borneo than from Africa and the Amazon combined (Curran et al. 2004).

Methods for ascertaining the species and/or geographic provenance of timber are key to verifying legality in supply chains and combatting the trade of illegal timber. Anatomical, chemical and genetic methods have all been used for timber identification with varying levels of success (Dormontt et al. 2015). Much work is being undertaken to strengthen these technologies in light of the recently introduced European Union Deforestation Regulation (EUDR) that specifically highlights the use of technical and scientific means to verify the species or exact provenance of relevant commodities including timber. In addition, several countries have introduced or are developing legislation aimed at eliminating or reducing the trade of illegally harvested timber and timber products, including Canada (Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act 1992), the United States (Lacey

Building a library: One of the ITTO Fellow's PhD supervisors, Andy Lowe of The University of Adelaide (centre left), and collaborator Anto Rimbawanto of Indonesia's National Research and Innovation Agency (centre right), collecting samples in Kalimantan. *Photo: ITTO project TFL-PD 037/13 Rev.2 (M)*

Act 2008), Australia (Illegal Logging Prohibition Act 2012), Japan (Japanese Clean Wood Act 2017) and the United Kingdom (United Kingdom Timber Regulation 2021).

Initiatives that bring together scientists, policymakers and industry stakeholders are gaining momentum, including the Forest Governance and Policy team at the World Resources Institute and the Nature Crime Alliance.[1] The international organization World Forest ID is creating extensive global reference collections and reference data for species identification (e.g. mass spectrometry, genetics) and geographic provenance (e.g. stable isotopes, genetics, elemental profiling) as well as data analysis and interpretation tools (Mortier et al. 2024).[2]

Genetic markers

The aim of my PhD is to develop species and geographic provenance DNA identification tests for dipterocarp timber species in Southeast Asia from the subfamily Dipterocarpoideae. In particular, I am focusing on species of dipterocarps that occur on Borneo, where they dominate tropical rainforests that are amongst the tallest and most biologically diverse in the world. There are around 269 species of dipterocarps on Borneo and 162 of these are endemic (Bartholomew et al. 2021). Dipterocarps are of major importance in the international timber market, providing valuable woods, aromatic essential oils, balsam and resins, and play an important role in the economy of many Southeast Asian countries (Appanah and Turnball 1998; Utomo et al. 2018). Of the endemic species on Borneo, 62% are at risk of extinction in the wild, with the greatest threats being conversion of lowland forest to plantations, and logging (Bartholomew et al. 2021).

Our samples were collected in Indonesian-governed Kalimantan and in Brunei Darussalam. In Kalimantan, samples were collected by the Centre for Forest Biotechnology and Tree Improvement Research of the National Research and Innovation Agency under the supervision of Anto Rimbawanto and in collaboration with the University of Adelaide and Double Helix Tracking Technologies, Singapore. The sampling was supported by ITTO through the Australian Government-funded Thematic Programme on Forest Law Enforcement, Governance and Trade. Samples collected from Brunei Darussalam were provided by collaborators at the Universiti Brunei Darussalam.

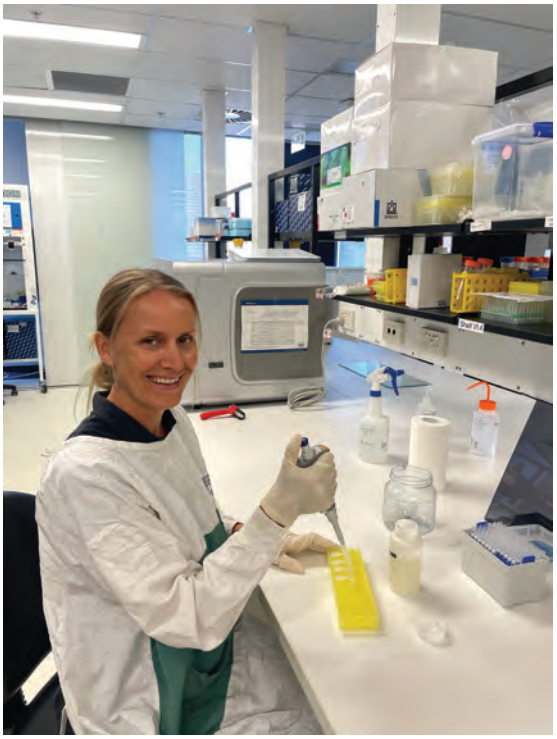
To develop genetic reference data we analysed 85 species (from eight genera), of which half are from the largest genera of dipterocarps, *Shorea*. Two high-value species, *Shorea laevis* and *Shorea parvifolia*, were sampled extensively across Kalimantan and will be the focus of the geographic provenance work. I am working with both plastid and nuclear genomes and considering genes and single nucleotide polymorphisms (SNPs). SNPs work better with the degraded and shorter fragments of DNA which are common with timber. With the support of the fellowship around 370 samples were analyzed using hybrid capture, currently the most advanced method of screening, to target plastid and nuclear markers with potential for discriminating among dipterocarp species and the geographic provenance of *S. laevis* and *S. parvifolia* timber samples. Post-sequencing data processing is currently being undertaken. So far, we have constructed plastid and nuclear phylogenies to increase our understanding of the species relationships and for which species we are most likely to find discriminatory DNA markers. The family Dipterocarpaceae is a taxonomically complex group and understanding the species relationships is essential to the development of robust identification tests. The next steps will be identifying markers for species and geographic provenance identification.

Sharing progress

The fellowship has ensured that previously collected samples will be utilized to identify DNA markers and develop DNA tests for verifying economically important timbers in the family Dipterocarpaceae in Southeast Asia, in addition to developing DNA tests for determining the geographic provenance of two of the most valuable dipterocarp species, *S. laevis* and *S. parvifolia*. I will share the results of my work with researchers, industry and government stakeholders, particularly those in producer countries where DNA tests that can easily, cheaply and quickly distinguish between Dipterocarpaceae species have the potential to increase timber exporters' access to high-value international markets whilst at the same time helping control and prosecute illegal operators.

With the support of the fellowship, a review of timber tracing technologies has been published with open access in the IAWA Journal (Low et al. 2022). For the review, I worked with 16 researchers, both national and international, to assesses the status of genetic, chemical and anatomical techniques for identifying timber species and geographic provenance for the top 322 global priority timber taxa. The results of the literature and database searches, undertaken in August 2021, indicated that the current potential for identifying species was greater than for geographic provenance and more research focused on determining the geographical provenance of

1 www.forestlegality.org, www.naturecrimealliance.org
2 https://worldforestid.org/



Extracting DNA: The ITTO Fellow is working to identify genetic markers for the species and geographic provenance of members of the subfamily Dipterocarpoideae. *Photo: Brittany Hogben*

timber was required. Based on the rate of research up to August 2021, we estimated it would take approximately 27 years to generate geographic data for all 322 priority taxa. Thankfully we are seeing as increase in the rate of reference database building (e.g. World Forest ID) that will significantly shorten this timeline.

The fellowship also enabled me to attend the International Union of Forest Research Organisations (IUFRO) Div 5 Conference titled "The Forest Treasure Chest" in Cairns, Australia in June 2023, where I presented the results of my PhD research in the session "Application and Prospects of Interdisciplinary Forest Product Identification and Traceability Approaches". The event is one of the world's top forest conferences and encompassed topic areas such as wood quality and durability, carbon storage, climate change impacts, forestry sustainability, new and emerging species for forest plantations, the contribution of non-timber products to the bioeconomy, community and first nations forestry, and wood and forest cultural heritage. Attending the conference provided me with invaluable opportunities to interact with top international timber experts and to present my research to the scientific community.

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Sustainable tropical timber coalition builds momentum

An alliance of tropical countries launched to promote their sustainable forest industries is pressing forward with its programme[1]

by Mike Jeffree

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Smoothing trade: The BMRC aims to strengthen consumer market access for members' sustainable timber and wood products. *Photo: Interholco*

The Broader Market Recognition Coalition (BMRC) was formed in 2023 to underpin international market access and boost investment in tropical timber industries in countries with independently endorsed national sustainable forestry systems (NSFS). The coalition has launched a website[2] and is holding stakeholder meetings to further define objectives and strategy.

The core role of the BMRC is to increase consumer market awareness and appreciation of its member countries' NSFSs. In communicating the systems' environmental, social, and economic benefits, the objective is to strengthen members' sustainability credentials and boost demand for their legal and sustainable forest products. This, in turn, is intended to incentivize and underpin sustainable forest management—and attract more member countries to the BMRC. Essentially, it's about harnessing the increasingly sustainability-conscious international market to the cause of tropical forest maintenance.

The BMRC has six founder members: Cameroon, Ghana, Guyana, Indonesia, Liberia and the Republic of the Congo. Its roots can be traced to the Tropical Forestry Accord signed by these and other countries and presented to the twenty-sixth conference of the parties to the United Nations Framework Convention on Climate Change (COP 26) in Glasgow in 2021.

The accord contended that the European Union and United Kingdom's Forest Law Enforcement Governance and Trade (FLEGT) programme, which is about incentivizing sustainable and legal forest management by delivering market access, has had positive results. Under FLEGT, supplier tropical countries enter voluntary partnership agreements with the European Union and United Kingdom, undertaking to establish national timber legality assurance systems. Once these systems are approved by the European Union, the United Kingdom and the producer country governments, the latter can issue FLEGT licences, which exempt goods from further import legality due diligence in the European Union and United Kingdom markets.

While so far only Indonesia has achieved licensing status—with Ghana set to follow suit later in 2024—it is acknowledged that, under FLEGT's auspices, other partner countries have progressed their timber legality assurance and tracking systems. FLEGT is also accepted as pushing environmental performance up the agenda in both tropical timber consumer and producer countries.

However, the Tropical Timber Accord also maintained that FLEGT's impact and appeal is limited by the fact that it is only about access to European markets, whose share of the global tropical timber trade has been in historical decline. What was needed, said the accord, was something new "to incentivize good forest governance in tropical countries through broader market recognition of national systems".

Coalition roadmap

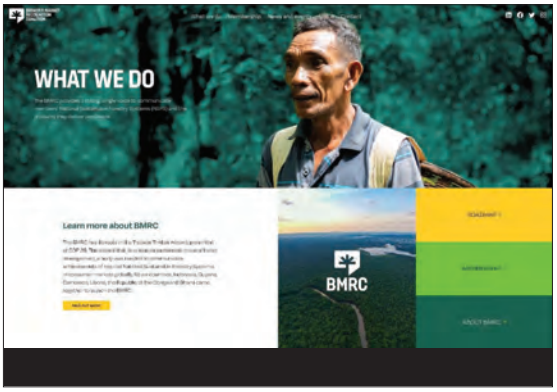
The coalition's roadmap, agreed earlier in 2023, has been developed through wide stakeholder engagement. It has involved input from member countries' governments, private sector and civil society.

It explains that members commit to their NSFSs being assessed and validated against international sustainable forest policy criteria and indicators. They must be developed with input from and backed by all stakeholder groups and comply with laws that address environmental, social, and economic principles, ensure nationwide enforcement, and involve independent third-party compliance monitoring.

1 A version of this article appeared in December 2023 in the Timber Trades Journal. It is available to subscribers at www.ttjonline.com/features/sustainable-tropical-forestry-11408631/.

2 www.forestgovernance.org

Building capacity: Training on Ghana's wood tracking system. *Photo: Ghana Forestry Commission*



Online resource: The BMRC has launched a website that provides background on the coalition as well as a copy of its roadmap and information about membership.

If the BMRC's lead body, its council, is initially unable to endorse an NSFS, an action plan will be drawn up for corrective action.

Countries will be supported in getting to endorsement level through best practice exchange with other members and donor backing, leveraged by the BMRC.

The roadmap does not bill the BMRC as a replacement for third-party sustainability certification, as provided by the Forest Stewardship Council (FSC) and the Programme for the Endorsement of Forest Certification (PEFC), but it does say that NSFSs have advantages. They encompass the entire national landscape, it explains, whereas third-party certification covers individual forest management units, which can be "small islands of responsible production in a sea of illegal and destructive practice". Moreover, third-party certification is voluntary, whereas national systems are embedded in law. "Where significant reductions in deforestation and increased afforestation have occurred in the past, it has always been in the context of national policies designed to promote socioeconomic development on the one hand, and sustainable use of the land resources on the other," states the roadmap.

Stakeholder engagement

In terms of the governance and structure of the BMRC, the council, including representatives of each members' government, private sector, and civil society, will be the executive. It will decide on admission of new members and endorsement of NSFSs and lead on market promotion of BMRC countries' NSFSs and forest products. A small secretariat will undertake day-to-day management with responsibilities including BMRC communications, trademarks, and logo use. An independent review body will make recommendations to the council on criteria and indicators for endorsement of NSFSs. And independent panels will assess NSFSs against endorsement criteria and advise on achieving political and market recognition. Each member country also has a national committee.

A BMRC chain-of-custody standard will build on those of existing certification schemes, such as FSC, PEFC, and Indonesia's Sistem Verifikasi Legalitas Kayu (SVLK) timber legality assurance system. It will also align with the ISO38200 standard for wood and wood product chains of custody. The idea is that companies accredited to these standards can easily adapt to that of the BMRC.

On-product BMRC labelling won't just be the preserve of member countries with fully endorsed NSFS, but also those progressing to endorsement. The proviso is that they use graduated claims alongside the logo, such as "progressing to sustainability".

The message behind the label will be that products delivered by BMRC-endorsed NSFSs "are sustainable (or progressing to sustainable), contribute to achievement of socioeconomic goals, and provide for wider environmental benefits, such as biodiversity conservation".

"By connecting demand with supply from NSFSs, and by providing for phased market recognition of NSFSs depending on progress, the BMRC mechanism will also help to support and incentivize members' responsible national agencies to implement effective forest governance, enforcement, and other regulatory and non-regulatory measures to deliver legal and sustainable forestry", says the roadmap.

BMRC marketing will engage key decision-makers, such as architects, designers, civil engineers, and other specifiers and lobby for harmonized import regulations to combat trade in illegal and unsustainable forest products. It will also support research into life-cycle impacts of products delivered under BMRC-endorsed forest systems to support credible, scientifically supported messaging on their low carbon footprint and other environmental benefits.

The view is that the importance attached to independently endorsed sustainable forestry systems will grow globally as more consumer markets follow in the footsteps of those such as the United States, European Union, Japan, and Australia and implement timber and forest product import controls to ensure legal origin.

At the same time, sustainability is becoming an increasingly central plank of public and private sector procurement policy.

"By demonstrating conformance of robust NSFSs with clearly stated principles, BMRC will provide a harmonized framework for recognition of legal and sustainable forest products from participant tropical countries in the import regulations and procurement policies of trade partners," says the roadmap.

Leading the way: An audit under the SVLK legality assurance system in Indonesia, one of the architects of the BMRC. *Photo: IMM*

Attracting investment

Another BMRC objective is to make the forest product industries of member countries more investible. As sustainability moves up the agenda of government, business and consumers, financial institutions and the wider investment community internationally are increasingly putting money into financial instruments that meet environmental, social and governance criteria. The BMRC says it will help member countries tap into this growing investment pot by "giving confidence to national and international creditors and investors that BMRC-endorsed NSFSs are robust and implemented in accordance with internationally recognized principles". It will also promote BMRC-endorsed NSFSs "as a factor to improve the credit rating of forest sector enterprises in participant tropical countries".

The roadmap says that the BMRC will initially need seed funding in the form of overseas development aid from donor governments. In the longer term, it will look to secure domestic public funding from member countries, given that endorsed and effectively enforced NSFSs should increase their tax take. It will also explore charging licence fees for use of the BMRC label along the supply chain and "innovative mechanisms to raise finance for NSFSs in participant countries and support BMRC activities at international level". These could include blended finance initiatives, where "public and private funders pool capital to reduce risk for private investors, while enabling deployment of large projects or provision of credit to large numbers of smallholders".

The BMRC presented on its role and ambitions at COP 28 in Dubai in November 2023. Its website launched at the same time. The website describes the background of the BMRC and explains its role and ambitions. Describing the coalition's structure, it highlights its multi-stakeholder constitution, with representatives of government, private sector and civil society all involved in decision-making. It also explains how other tropical timber producing countries can become members, and how non-tropical countries and international agencies can become associates of the organization.

The BMRC governance structure, it explains, is designed to be logical and transparent; with functions of its various constituent bodies clearly delineated to avoid conflicts of interest and to ensure impartiality.

The role of the coalition, says the website, will also be to act as a "forum to drive continuous forest governance improvement and to exchange best practice between member countries".

It also goes into the BMRC's funding model, explaining that, while it will initially depend on donor funding, the goal is the transition to sustainable private sector finance. Levies on members' forestry and timber products industries are also listed as a potential source of income to fund activities. It also looks at how BMRC membership, through helping to formalize forestry and timber sectors and to promote their sustainability, could leverage funding from international financial institutions.

The function of the website is also clearly to attract other countries to join the BMRC and pool resources with the six founder members to further increase the coalition's market influence and impact.

"BMRC conveys a strong, single message on behalf of members on the sustainability of products delivered under their endorsed NSFS," it states. "Presenting a united front, they can better influence public and private sector procurement policy in consumer markets."

Applications to join, it adds, are submitted to the BMRC Council, and prospective members will nominate representative bodies from their government, private sector, and civil society to sign up to the BMRC Joint Statement.

"While being a country member demonstrates commitment to BMRC's goals and principles, actual BMRC endorsement and the benefits that come with this will involve separate evaluation of their NSFS" by an independent panel, it says.

Visitors can also download the BMRC Roadmap from the website.

Tropical and topical

ITTO–CITES cooperation on tree species listings should continue, says Executive Director

Cooperation between ITTO and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) has greatly assisted countries in implementing CITES listings of tropical tree species and should be continued, ITTO Executive Director Sheam Satkuru has said. In a presentation during the United Nations Environment Assembly, Ms Satkuru also highlighted successes including the development of resource inventories, regulatory systems and guidelines on non-detriment findings.

Read the full story: www.itto.int/news/2024/03/01/itto_cites_cooperation_on_tree_species_listings_should_continue_says_executive_director/

ITTO and UNCCD extend joint work on tropical forests

ITTO and the United Nations Convention to Combat Desertification (UNCCD) have committed to another four years of joint work on the sustainable management of tropical forest landscapes. Under a new memorandum of understanding, the ITTO and UNCCD secretariats will also cooperate to promote the sustainable production of timber products and ecosystem services.

Read the full story: www.itto.int/news/2024/02/20/itto_and_un_convention_to_combat_desertification_strengthen_cooperation_on_tropical_forests/

Singapore scientists develop method to estimate two centuries of biodiversity loss

Scientists from the National University of Singapore have employed novel statistical methods to reveal the extent of biodiversity loss in Singapore over the past two centuries. Their study paints the most accurate picture to date of the ecological impact of deforestation and urban development in the tropical city-state, ScienceDaily reports. After compiling and analyzing a comprehensive dataset, the scientists estimate that Singapore has lost 37 per cent of its species, including those that went extinct before they could be discovered and documented.

Read the full story: www.sciencedaily.com/releases/2024/01/240129122408.htm

ITTO chief: Malaysian plywood manufacturers should diversify into niche markets

Malaysian plywood manufacturers should diversify into producing hardwood plywood products for niche markets internationally, ITTO Executive Director Sheam Satkuru said. Interviewed by The Star newspaper, Ms Satkuru said businesses can consider diversifying into products such as wooden flooring, high-density fibreboard and wood panels for use in building interiors. The Malaysian government could provide tax rebates or other incentives to encourage manufacturers to upgrade their factories and invest in new technologies to produce legally certified plywood products for export, she reportedly said.

Read the full story: www.thestar.com.my/business/business-news/2024/03/11/call-for-plywood-manufacturers-to-diversify-into-niche-global-markets

Study: species are disappearing faster than they are found

Researchers have compiled a database that shows that the number of lost species is increasing at a faster rate than rediscovered species. As reported by Mongabay, since 1800, over 800 species of amphibians, birds, mammals, and reptiles have not been sighted by scientists for at least a decade. Even upon rediscovery, many lost species continue to face the threat of extinction, as their populations are often small and fragmented due to habitat loss. New technologies such as camera traps and environmental DNA analysis are aiding in rediscovery efforts. The involvement of local communities is also crucial in the quest to find lost species.

Read the full story: https://news.mongabay.com/2024/02/were-losing-species-faster-than-we-can-find-them-study-shows/

United Kingdom rejects calls to widen ban on deforestation-linked imports

The UK government has said it does not intend to extend a forthcoming ban on the sale of imported products linked to illegal deforestation to cover commodities linked to deforestation that is technically legal in the country of origin, Edie reports. Members of a parliamentary committee had been pushing to extend the scope of the ban to include all deforestation, not just that which was classed as illegal in the source country. The report said the government has written to the committee claiming that, because some researchers believe that at least 69% of tropical deforestation carried out between 2013 and 2019 was illegal, the ban would already tackle the majority of the most damaging kinds of deforestation.

Read the full story: www.edie.net/uk-government-rejects-calls-to-widen-ban-on-deforestation-linked-imports/

Myanmar's Karen people register lands beyond government control

Karen indigenous organizations in Myanmar's Kayin State, which is partly under the control of rebel armed groups, are mapping and documenting their ancestral lands without seeking the approval of the central government, Mongabay reports. Through the initiative, residents in southern Kayin have been granted certificates designed to cement their control of community land and forests, the report said, citing local Karen leaders. Surveyors using geographic information system and computer tools have reportedly mapped more than 3.5 million hectares of land, including reserved forests and wildlife sanctuaries.

Read the full story: https://news.mongabay.com/2024/02/not-waiting-for-the-government-myanmars-karen-people-register-their-own-lands/

Recent editions

Kant, P. 2024. *Encouraging greater domestic use of legal and sustainable tropical wood.* Policy Brief. International Tropical Timber Organization (ITTO). Yokohama, Japan.

Available at: www.itto.int/policy_papers/

Tropical countries are consuming an increasing proportion of their wood production domestically, making the promotion of policies to encourage sustainability a priority. This policy brief is based on a review of three Japanese-funded ITTO projects in Southeast Asia promoting the sustainable utilization of tropical timber in domestic markets. It contains a range of findings from these projects and recommendations for countries and organizations to ensure that domestic consumption of tropical timber is legal and sustainable.

The full unedited report on which the policy brief is based (*Sustainable Wood Use in Selected Countries of Southeast Asia Region*) is also available via the link above.

ITTO. 2023. *ITTO criteria and indicators for the sustainable management of African tropical forests.* Policy Development Series No. 26. International Tropical Timber Organization (ITTO), Yokohama, Japan.

ISBN: 978-4-86507-099-6 (English), 978-4-86796-000-4 (French)

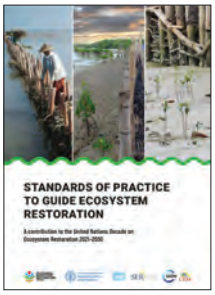
Available at: www.itto.int/policy_papers/

ITTO pioneered the development and use of criteria and indicators (C&I) to monitor, assess and report on tropical forests in the early 1990s, and the most recent version of the globally applicable ITTO C&I was published in 2016. African member countries that benefited from an ITTO-funded regional C&I capacity-building programme between 2000 and 2010 requested support to develop a set of C&I for Africa, focusing on lessons learned under that programme and the specific needs and characteristics of African forests. This publication is the result.

UNU-IAS and ITTO. 2023. *Advancing Forest Landscape Restoration in the Tropics: Experiences and Lessons for Socio-Ecological Resilience and Empowerment of Women in ITTO Projects.* Policy Report. United Nations University Institute for the Advanced Study of Sustainability, Tokyo, Japan.

Available at: www.itto.int/other_technical_reports/

This report aims to make forest landscape restoration more effective in improving ecosystems and livelihoods and increasing resilience to climate change by providing valuable lessons for both practitioners and policymakers seeking solutions to global environmental problems. The report analyzed 14 ITTO-funded projects in Africa, Asia and the Pacific, and Latin America and the Caribbean to identify common challenges and lessons learned, including on engaging stakeholders, empowering women and mainstreaming restoration principles in government policies. An article on this publication is also available on page 16.



Nelson, C.R., Hallett, J.G., Romero Montoya, A.E., Andrade, A., Besacier, C., Boerger, V., Bouazza, K., et al. 2024. *Standards of practice to guide ecosystem restoration – A contribution to the United Nations Decade on Ecosystem Restoration 2021-2030.* Rome, FAO, Washington, DC, SER and Gland, Switzerland, IUCN CEM.

ISBN: 978-92-5-138471-8

Available at: www.cifor.org/knowledge/publication/9084

The United Nations Decade on Ecosystem Restoration 2021–2030 aims to prevent, halt and reverse ecosystem degradation; recover biodiversity and ecosystem integrity; enhance human health and well-being, including sustainable delivery of ecosystem goods and services; and mitigate climate change. To create a shared vision of ecosystem restoration, UN Decade partners launched ten principles for achieving the highest level of recovery possible through restoration projects. To facilitate application of these principles, partners have now designed and issued standards of practice that provide key recommendations to guide all phases of restoration projects. The recommendations are applicable to the broad array of restorative activities included as ecosystem restoration under the UN Decade, across all types of ecosystems and restoration projects, from voluntary community member-led efforts to highly resourced, nationally funded projects.

Carrilho, C.D. and Chervier, C. 2023. *What influences the effectiveness of forest conservation interventions in tropical regions? A systematic review.* Working Paper 22. Bogor, Indonesia: CIFOR and Nairobi, Kenya: ICRAF.

Available at: www.cifor.org/knowledge/publication/9063

Recent decades have witnessed a proliferation of forest conservation interventions in tropical developing countries. Impact evaluations most frequently report statistically significant but modest conservation results. As tropical deforestation has persisted, how to increase the effectiveness of interventions is an important question. This paper examines peer-reviewed literature about the heterogeneous impacts of forest conservation interventions. The goal was to synthesize evidence about how two main factors shaped forest conservation outcomes: the design and implementation characteristics that create heterogeneous treatments; and the characteristics of the context that act as moderators of treatment effects. After screening 1486 studies, the authors selected 47 papers conducting robust heterogeneity analysis. They found interventions generally achieve greater conservation results where forests are under higher deforestation pressure or risk. This implies the protection of forests that are most under threat should be prioritized.

Meetings

ITTO meetings

6 May 2024 (13:15–14:30 hrs)
Principles and Strategies for Integrated Landscape Fire Management through Collaborative Governance (UNFF19 Side-event)
United Nations Headquarters,Conference Room 4, New York, United States
The event aims to facilitate knowledge exchange and discussion on recent initiatives, strategies, and best practices in promoting integrated landscape fire management, including through collaborative governance according to the Landsacpe Fire Governance Framework, as well as to explore innovations in early warning, detection and control.
More: www.itto.int/events

7 May 2024 (13:15–14:30 hrs)
Mainstreaming Legal and Sustainable Supply Chains of Tropical Wood Products for Responsible Production and Consumption (UNFF19 Side-event)
United Nations Headquarters,Conference Room 4, New York, United States
The event aims to raise awareness and understanding of the importance of legal and sustainable wood products supply chains for the sustainable development of tropical countries. It will also foster partnerships and collaboration among stakeholders to support sustainable forest management and the responsible sourcing, consumption and production of forest products.
More: www.itto.int/events

23–29 June 2024
ITTO booth at the 26th IUFRO World Congress 2024
Stockholm Exhibition and Congress Centre, Stockholm, Sweden
Booth No. A06:31
More: www.itto.int/events

28 June 2024, 08:30–10:30 hrs
Strengthening Teak Forest Management for Sustainable Teakwood Supply Chains and Trade (technical session at the 26th IUFRO World Congress 2024)
Stockholm Exhibition and Congress Centre, Room 9
The session will examine the current international situation with respect to the supply of quality plantation teakwood from sustainable sources.
More: www.itto.int/events

11–12 September 2024
Global Legal and Sustainable Timber Forum 2024: "Together Towards Reliable and Effective Global Timber Supply Chains"
Macao SAR, China
The forum aims to increase networking, collaboration and business exchange among timber industry stakeholders—producers, buyers, processors and market players—with a view to strengthening sustainable forest management, enhancing the uptake of legal and sustainable wood products supply chains, facilitating the legal and sustainable use and trade of wood products in a stable, transparent and predictable business environment, and contributing to sustainable development and climate-change mitigation.
More: www.itto.int/events
(see also the announcement on p. 12)

1–6 December 2024
60th Session of the International Tropical Timber Council and Sessions of the Associated Committees
Yokohama, Japan
The International Tropical Timber Council is ITTO's governing body. It 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: www.itto.int/events

Other meetings

6–10 May 2024
19th session of the UN Forum on Forests (UNFF19)
New York, United States
More: www.un.org/esa/forests/forum/index.html

13–16 May 2024
Short Rotation Woody Crops International Conference: "The Future is Green: Integrating Short Rotation Woody Crops, Agroforestry, and Ecosystem Services for Sustainable, Productive Landscapes"
Columbia (Missouri), United States
More: https://woodycrops.wixsite.com/srwc2024

28–30 May 2024
Carrefour International du Bois
Nantes, France
More: www.timbershow.com/?lang=en

4–7 June 2024
2024 Sustainable Forestry Initiative Conference
Atlanta, United States
More: https://forests.org/conference/

22–25 June 2024
2024 Association of Consulting Foresters (ACF) National Conference
Ponte Vedra Beach, United States
More: www.acf-foresters.org/national-conference

23–29 June 2024
IUFRO World Congress 2024: "Forests and Society Towards 2050"
Stockholm, Sweden
More: https://iufro2024.com/

June 30–July 5 2024
SWST 67th International Convention: "Advancing Regenerative Sustainability with Wood Science"
Portorož, Slovenia
More: www.swst.org/wp/meeting/2024-annual-convention-portoroz-slovenia/

22–26 July 2024
27th Session of the FAO Committee on Forestry (COFO 27)
Rome, Italy
More: www.fao.org/forestry/committee-on-forestry/en

21–23 August 2024
IUFRO Division 7 Joint Meeting: "Theory and Practice to Address Defoliating Insects, Invasive Pests and Biological Control of Insects and Pathogens in Forests"
Tokyo, Japan
More: www.iufro2024tokyodiv7.com/

26–28 August 2024
International Conference on Tropical Wood – Advancing the Sustainable Use of Tropical Forests
Antananarivo, Madagascar
More: https://tropicalwood.sciencesconf.org/

6–7 September 2024
Future Forest Forum 2024
Blankenburg, Germany
More: www.futureforest.de/en/home

8–13 September 2024
11th Meeting of the IUFRO Working Party 7.02.09: "Phytophthora in Forests and Natural Ecosystems"
Paihia, New Zealand
More: www.scienceevents.co.nz/iufro2024

10–14 September 2024
10th Pacific Regional Wood Anatomy Conference (10th PRWAC)
Hokkaido, Japan
More: www.prwac2024.org/

17–21 September 2024
23rd International Nondestructive Testing and Evaluation of Wood Symposium
São Paulo, Brazil
More: www.ndtesymposium.org/

16–17 October 2024
EGURTEK 2024 – International Forum of Architecture and Construction in Wood
Bilbao, Spain
More: https://egurtek.bilbaoexhibitioncentre.com/en/

21 October 2024–1 November 2024
Sixteenth meeting of the Conference of the Parties to the Convention on Biological Diversity (CBD COP16)
Cali, Colombia
More: www.cbd.int/process/

11–22 November 2024
2024 UN Climate Change Conference (UNFCCC COP29)
Baku, Azerbaijan
More: https://unfccc.int/cop29

2–13 December 2024
Sixteenth session of the Conference of the Parties to the United Nations Convention to Combat Desertification (UNCCD COP16)
Riyadh, Saudi Arabia
More: www.unccd.int/cop16

17–21 March 2025
IUFRO Unit 1.01.04 conference: "Achieving forest establishment success at scale to address climate, environmental, social and economic challenges around the world"
Rotorua, New Zealand
More: www.iufro.org/science/divisions/division-1/10000/10100/10104/