



Know your timber

In seasonal forests, with and without fire—sustainable forest management, to put it another way—requires an intimate knowledge of the resource and its government. The editors of the TFC present articles that offer increasing knowledge on tropical timber, from the conservation of certain tree species, through the legality of forestry operations, and add value to products in the international marketplace.

On page 2, Forest Products Commission report on an ITTO project to develop a wood identification technique to assist in monitoring the mangrove trade. The technique involves the use of hand held near infrared spectrometers, and it has proved effective in field trials. It can distinguish not only

More informed timber identification; assisting small enterprises in China to comply with CITES; Parkopsis elata in Ghana; new grading rules in Guyana; Tropical Timber Atlas; more



SUSTAINABLE DEVELOPMENT GOALS
17 GOALS TO TRANSFORM OUR WORLD



— GLOBAL —
FOREST GOALS
— GOALS —



Innovations to optimize Sustainable pathways of traded tropical timber and timber products

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(ITTO)

Talking Points

- *Continuing pressures to tropical forests*
- *ITTO's long standing work to sustain tropical forests*
- *Innovations for sustainable tropical timber trade*



Tropical forests are central to sustainable development

- The sustainable harvesting, processing and trade of tropical timber and other forest products:
 - ✓ supplies residential and commercial consumers worldwide,
 - ✓ contributes to local and national economies, and
 - ✓ enhances value of tropical forests—a key factor in reducing forest conversion to other economic land uses.
- When sustainably managed, tropical forests are:
 - ✓ healthy, productive and renewable ecosystems.
 - ✓ contribute to nature-based solutions.
- Sustainably produced tropical wood has a wide range of uses and is an essential for the transition to more sustainable and circular bioeconomies.
- The sustainable management of forests is of critical importance to the 2030 Agenda for Sustainable Development and **almost all SDGs.**



Despite their importance, tropical forest are under pressure

- The world lost an estimated 10 million ha of forest (the size of the Republic of Korea) per year between 2015 and 2020:
- Most deforestation occurs in the tropics:
 - ✓ competing land uses that produce higher/more rapid financial returns (agriculture, energy, mining and infrastructure),
 - ✓ failure of market policies (don't reflect the full value of forests),
 - ✓ illegal logging, fragmentation, food security, woodfuel/energy needs,
 - ✓ wildfires and
 - ✓ climate change.
- Crucial to advert these threats.



Tropical forestry is misrepresented

- Forest-based enterprises and international trade add value to tropical forests & can contribute significantly to sustainable economies and livelihoods.
- The share of tropical wood in major markets - affected by the negative environmental image of tropical wood and by its substitution by non-tropical wood and non-renewable materials (plastics, non-wood laminates, concrete and metals).
- Consumer markets - overlooking the significant benefits of tropical timber as a renewable, environmentally friendly resource.



ITTO's mission

- Promote the sustainable management and conservation of tropical forests.
- Promote the expansion and diversification of trade in tropical timber from sustainably managed and legally harvested forests.

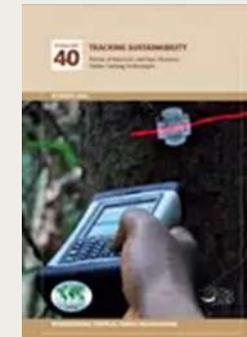
ITTO—THE SOLE inter-governmental organization focused entirely on tropical forest resources.

ITTO members (37 producers & 38 consumers) **cover over 80% of global tropical forests and account for 90% of trade in tropical forest products!**



Long-standing work on market access, traceability, certification etc

- Updates on issues related to tropical timber market access and certification are presented at ITTC sessions.
- Technical reports conducted on:
 - The impact of timber procurement policies
 - Uses and impacts of criteria and indicators for sustainable forest management
 - Review of electronic and semi-electronic timber tracking technologies
 - Assessment of major developments in technical and environmental standards in selected major international timber markets
 - Analysis of global trends impacting on the relative competitiveness of tropical wood products
 - The pros and cons of timber procurement policies
 - Developing forest certification
 - Many more ...



ITTO's continuous updates on timber and timber markets

- Bi-monthly market updates – ITTO's *Tropical Timber Market Report*: www.itto.int/mis/.
- Biennial Review and Assessment of the World Timber Situation: data on the production and trade of primary and secondary processed wood products in 73 economies worldwide (www.itto.int/annual_review)
- ITTO Annual Market Discussions: The 2023 edition was focused on current emerging international timber market requirements
- Success stories on SFM available on *ITTO's website* and *Tropical Forest Update* www.itto.int/top_stories/ www.itto.int/tropical_forest_update.



ITTO's Strategic Priorities 2022-2026

- Promote good governance and policy frameworks to enhance financing and investment in sustainable tropical forest management, legal and sustainable forest product supply chains and related trade
- Increase the contribution of the tropical forest sector to national and local economies and resilient livelihoods, including through further processing and trade in tropical timber and other forest products and Services
- Reduce tropical deforestation and forest degradation, enhance forest landscape restoration and the resilience of forest ecosystems to climate change, and conserve forest biodiversity and ecosystem services
- Improve the quality, availability and timeliness of information on tropical forest product markets, supply chains and international trade, including challenges and opportunities related to market access, expansion and diversification



Forest legality and sustainability requirements



- A key requirement of sustainability—compliance with all legal frameworks.
- Forest governance and legality requirements are meant to counter the negative impacts of illegal practices in tropical forests.
- Greater need to demonstrate the legality and sustainability credentials of forest products.
- National and international legislations/regulations require evidence of the legality of imported timber.
- More requirements are being faced by timber producers.

Challenges to improve forest governance

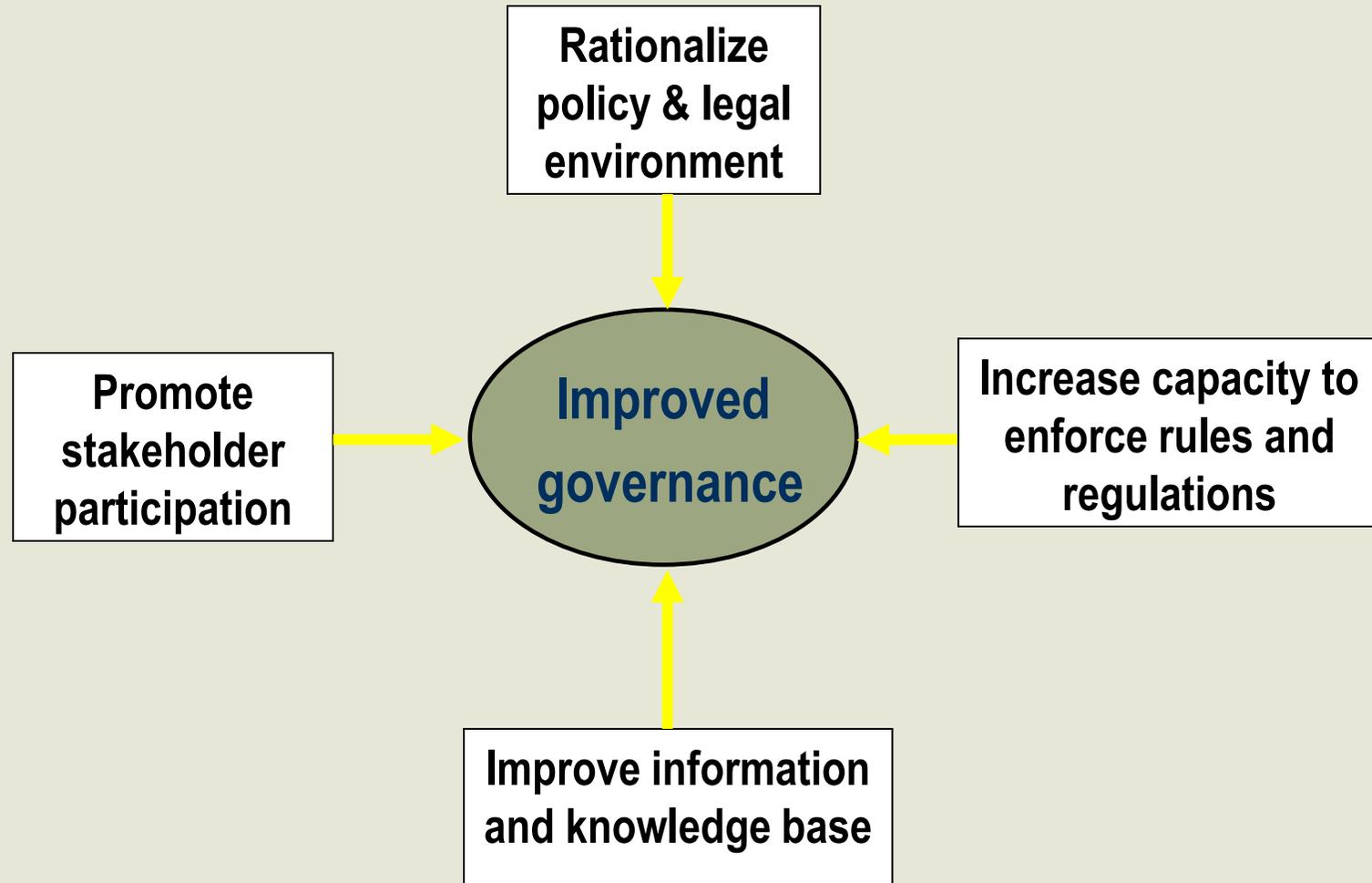


- Demotivates good actors already implementing SFM and complying with rules and regulations.
- Puts a brake on forest investment.
- Creates market distortions—illegal forest products do not reflect the real value of sustainable and legal timber and other forest products.
- Diminishes government revenues through a lack of taxation and other fees.
- Hampers efforts to promote sustainability among consumers.
- Possible negative impacts on the environment and the livelihoods of forest-dependent communities.





ITTO's APPROACH TO FOREST GOVERNANCE



Increased capacity: Pilot Programme Lines

- **Legal & Sustainable Supply Chains (LSSC)**
 - Enhance tropical timber supply and value chains, from the forests to the market, to achieve legality and sustainability.
 - Capacities of legal and sustainable supply chain enhanced, business collaboration and networking facilitated:
- Conservation of Biodiversity and Ecosystem Services
- Forest Landscape Restoration and Resilient Livelihoods
- Emerging Issues and Innovation



ITTO's Legal Sustainable Supply Chains Programme

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- Facilitate the enhancement capacities of legal and sustainable supply chain enhanced, business collaboration and networking

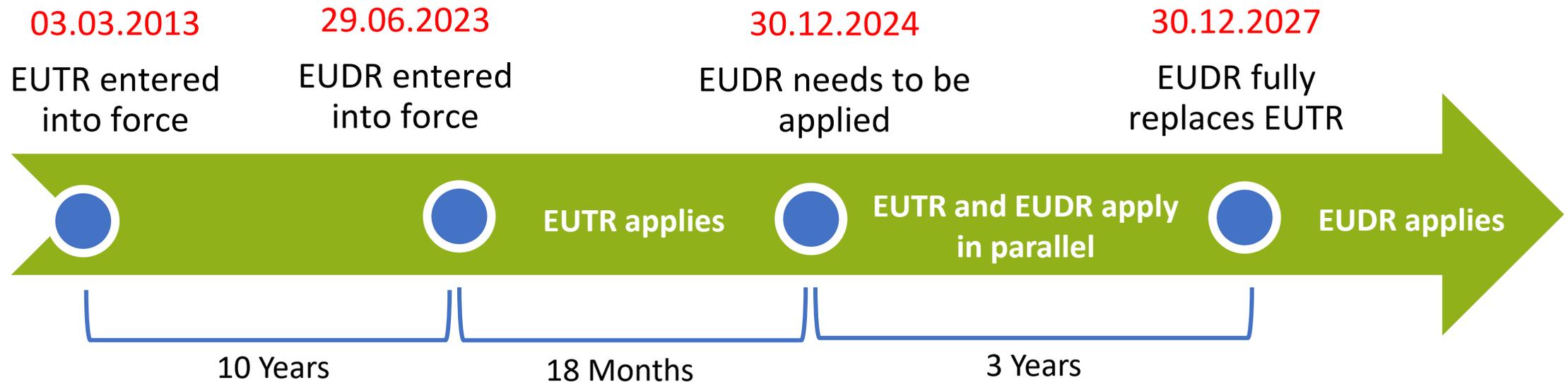


Major international timber trade regulations and their requirements

- **EU Timber Regulation/EU Deforestation Regulation**
- **US Lacey Act Amendments**
- **Australia Illegal Logging Prohibition Act**
- **UK Environment Act**
- **Revised Japan Clean Wood Act**
- **Korea**
- **China**
- **Viet Nam**
- **CITES**



EUTR → EUDR



EUTR continues to apply in case of:

- Harvest before 29.06.2023
- Placing on the EU market between 30.12.2024 und 30.12.2027

EUDR applies to all wood harvested from 29.6.2023

Field innovations from ITTO projects

- Provide tailored solutions for the conservation, sustainable management and sustainable use of tropical forests.
- Increase efficiency of operations and the uptake of best SFM practices.
- Engage local stakeholders in their development and advance SFM.
- Can be easily replicated and scaled-up across the tropics:
 - ✓ **More investments are urgently needed to encourage increased uptake!**

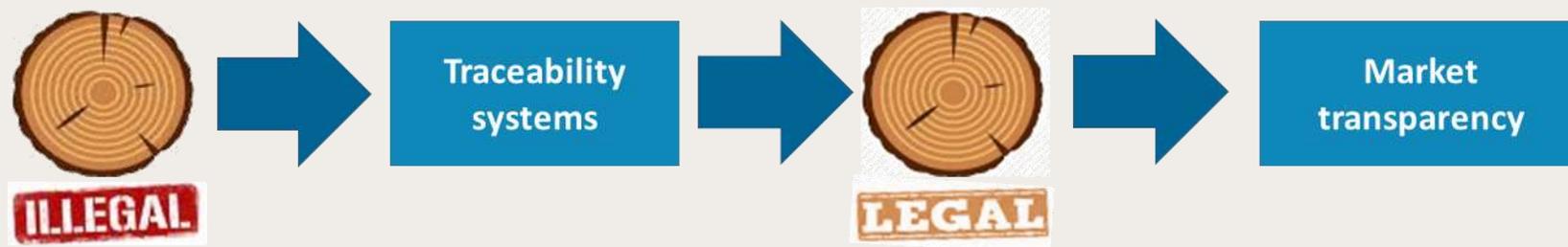


Timber traceability and wood identification— innovations that creates trust across the supply chain

- Provide reliable information on the flow of forests products through the supply chain:
 - ✓ improves SFM, forest governance and efficiency across the supply chain,
 - ✓ provides assurance of legality and sustainability,
 - ✓ facilitates monitoring and control of forest products and assists in combatting illegal logging.
- Rapid evolution of timber tracking systems and timber identification methods:
 - ✓ physical methods (barcoding, radio frequency, near-infrared spectroscopy—supported by apps).
 - ✓ chemical methods (DNA, stable isotopes).
- Some examples of ITTO projects on timber identification and traceability:
 - ✓ Brazil: Mahogany identification using near-infrared spectroscopy.
 - ✓ Cameroon: DNA tracking.
 - ✓ China: Online platform to facilitate the flow of information on timber legality to SMEs in China; Blockchain.
 - ✓ Guatemala: Barcoding supported by apps.
 - ✓ Indonesia: Forensic identification.
 - ✓ Madagascar: DNA tracking.
 - ✓ Panama: Barcoding supported by apps.



Typical Timber Supply Chain



Software for forest managers

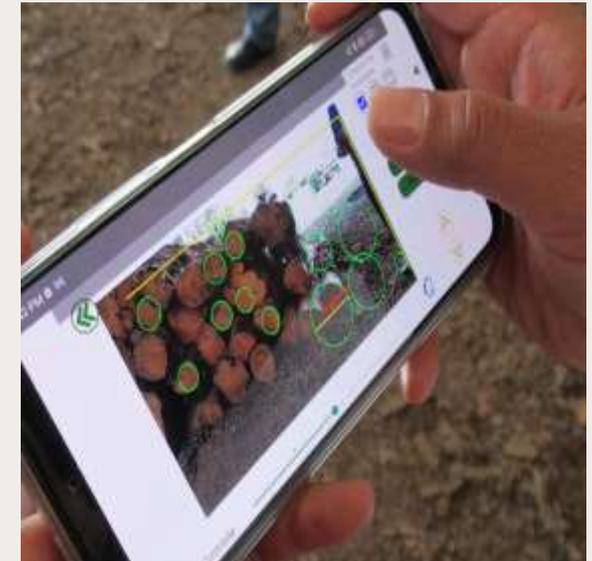
- In the Brazilian Amazon operators are required by law to follow approved sustainable forest management plans:
 - ✓ a 100% forest inventory of the area to be logged in a given year,
 - ✓ specify the activities to be carried,
 - ✓ indicate the trees to be logged, with their geographic position, scientific name, diameter at breast height, height, and wood volume.
- The above generate a lot of data that needs to be processed.
- An ITTO project developed software that speeds up and improves the forest planning process by aiding the selection of harvest trees based on clear criteria, providing better control over timber production, and enabling sustainable forest management: *BoManejo*:
 - ✓ meets the data requirements of the forestry legislation,
 - ✓ enables forest managers to refine and adjust the criteria for selecting trees for felling, using combinations of parameters,
 - ✓ managers can quantitatively and qualitatively evaluate the volumes to be harvested and interactively select the trees to be harvested,
 - ✓ generates reports and spreadsheets for submission to the government offices,
 - ✓ enables precise quantitative monitoring of tree felling, extraction and log transportation, increasing managers' ability to control production and avoid exceeding cutting limits (and therefore penalties).
- More: www.itto.int/project/id/PD452_07-Rev.5-F and www.embrapa.br/bom-manejo



Nome da categoria	UF Aceitável	DMNC	DMAC	Mínimo 100 ha	% Mínimo
Comercial 50+	Fustes 1 e 2	50	999	3	10
Comercial 55+	Somente fuste 1	55	999	3	10
Comercial 70+	Fustes 1 e 2	70	999	3	10
Vulnerável 50+	Fustes 1 e 2	50	999	4	15
Vulnerável 55+	Fustes 1 e 2	55	999	4	15
Vulnerável 70+	Fustes 1 e 2	70	999	4	15

Forestry apps—innovations at our fingertips

- In 2022, an ITTO project in Indonesia launched an app to assist fire services in the prevention and the suppression of wildfires:
 - ✓ the app is supported by a SMART Patrol Information System that records and reports real-time action of fire-prevention patrols based on 88 parameters,
 - ✓ the app is being used by patrol teams in Kalimantan, Nusa Tenggara, Sulawesi and Sumatera.
- In Guatemala, an ITTO project developed in 2023 a smartphone app to calculate log volumes: *CUBIFOR*:
 - ✓ it requires only a photograph of the stack of logs (or other wood product) and the average width and length of the stack to estimate volume,
 - ✓ It has strengthened the capacity of forest companies to control their inventories, improved the, and generally advanced sustainable forest management in the country.



Guatemala's timber traceability system

- It was developed to automate forest-related processes, minimize response times, standardize forms, clarify procedures, avoid data duplication, minimize human error, limit officers' discretionary powers and bureaucracy, and meet the deadlines established by law to process requests and applications.
- It consists of 3 information systems:
 - Electronic Forest Enterprises Information System (*Sistema Electrónico de Información de Empresas Forestales—SEINEF*);
 - Electronic Forest Administration System in Protected Areas (*Sistema Electrónico de Administración Forestal en Áreas Protegidas—SEAF-CONAP*)
 - Electronic Forest Management System (*Sistema Electrónico para la Gestión Forestal—SEGEFOR*—for forests outside protected areas)



Guatemala's timber traceability system



Forest Information System of Guatemala—SIGGUA	Information system	Services/processes	Activities
	Electronic Forest Enterprises Information System (SEINEF)	Registry of forest enterprises Verifying the traceability of forest products entering forest enterprises	Electronic registration of forest enterprises
			Submission of initial information report
			Submission of (quarterly) reports on forest product stock entries, processing and exits
			Printing of company bills of transport
		Monitoring of forest enterprises	Identification and supporting documents
			Uploading of monitoring results and reports
	Electronic Forest Management System (SEGEFOR)	<ul style="list-style-type: none"> • Forest harvesting • Forest incentives • National Forest Registry • Applications for company bills of transport • Export permit applications 	Electronic registration
			Compliance with technical and legal electronic requirements
			Verification and validation of information by INAB officers
Issuing of approval			
Miscellaneous applications		Application receipt acknowledged by INAB officers	
	Acknowledgement sent to users confirming receipt and electronic follow-up/processing of response		
Electronic Forest Administration System in Protected Areas (SEAF-CONAP)	<ul style="list-style-type: none"> • Harvesting permit applications • Registration of professionals developing management plans for protected areas • CITES certificates 	Electronic registration	
		Compliance with technical and legal electronic requirements	
		Verification and validation of information by INAB officers	
		Issuing of approval	



China's online platform on timber legality

- The platform addressed the lack of understanding among SMFEs of:
 - procurement policies for imported tropical timber,
 - application of such policies, and
 - appreciation of the market risks by the use of unsustainably or illegally harvested tropical timber
- SFMEs normally buy imported timber in the local market, therefore they were not aware of regulations such as EUTR/EUDR or Lacey Act
- SFMEs are also confused by the various trade policies of importing countries and information sources are limited and third party verification systems are too expensive



China's online platform on timber legality

- the Forest Products Index (FPI), is a platform for information exchange between the private sector and the government:
 - Provides detailed on the production of timber products such as veneer, fibreboard, facing paper and flooring
 - Provides data on imports and exports in timber markets important to China, such as those of the United States, the European Union and Japan
 - Provides a modern means by which stakeholders—industry, government agencies, research institutions and associations—can share information on timber procurement and sustainability and engage in a dialogue on these issues
 - Government agencies are also using the FPI to gauge trends in the sector.



Strengthening forest governance in Panama

- Project output was the establishment of a forest monitoring and verification system (Sistema de Trazabilidad y Control Forestal/STCF) for preventing illegal logging
- STCF enabled the monitoring of flows of illegal timber from both natural and planted forests through storage yards and processing facilities to wholesalers
- Streamlined the issuing of permits and the clearing of shipments along transport routes
- Created more transparency in the management of forest resources, fostering its acceptance among users and other stakeholders



To conclude

- Innovations and technological advancements are:
 - ✓ improving SFM, expanding FLR and the sustainable use of a wide-range of forest products,
 - ✓ advancing forest governance and institutional development,
 - ✓ contributing to the development of the forest sector and enhancing the contributions of tropical forests to sustainable development.
- There is no shortage of inventiveness—more investments and incentives are needed to facilitate their uptake and further development.
- ITTO's role is to support these stakeholders in their efforts and to spread the best innovations for the benefit of communities worldwide.
- Tracking systems need to be self-sustained in terms of funding so they can remain relevant, updated and operational
- Timber tracking systems assist in identifying (i)legal products, and do not substitute good governance



To conclude

- Implementing tracking systems involve many stakeholders, the key to success relies in understanding their reality and in creating mutual benefits so that changes in practices may be accepted
- Design and pilot testing is extremely important so that the systems may be user-friendly while fulfilling its purpose
- Tracking systems should be supported with appropriate and stable policies
- Appropriate levels of confidentiality and protection should be established, so that stakeholders may be comfortable in using the systems and sensitive information may remain confidential
- Socialization and training in the use of tracking systems is essential for their adoption





LSSC online
course



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