



GTTN

Global Timber
Tracking Network

Timber trade and the conservation of forests
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Jo Van Brusselen, Nele Schmitz, Gesche
Schifferdecker, GTTN secretariat

www.globaltimbertrackingnetwork.org



Illegal logging – global problem

- 15–30 per cent of global forest production
- Worth 30 to 100 billion US\$ yearly
- IL has detrimental effects on environment (soil, water, air), livelihoods (subsistence, social agreements) and wider economy (taxes, undervaluing)
- Timber prices depressed by 16%



Leverage forest governance and law enforcement through trade



Main global trade flows of roundwood and sawnwood at high risk of illegality, 2014 (million USD)



1. Russian Federation West; 2. Russian Federation Far East; 3. South America (Brazil, Colombia, and Peru); 4. Congo Basin (Cameroon, Democratic Republic of the Congo and Republic of Congo); 5. Myanmar; 6. Laos; 7. Malaysia; 8. Indonesia; 9. Papua New Guinea.

See Figure 3.12 for details on intra-regional trade flows within Southeast Asia.

CHN = China; EU = European Union; IND = India; USA = United States of America.

(Source: Kleinschmit et al., 2016)



GTTN supports FLEGT

The objective of the Global Timber Tracking Network (GTTN) is to promote the operationalization of **innovative approaches to verify trade claims of wood-based products.**

GTTN Brings together **expertise and infrastructure** to help stakeholders with the identification of wood species and its origin



Two key user groups



- law enforcement agencies, customs, CITES authorities, judiciary; high throughput to case-work



- due diligence: economic operators' own due diligence systems; SFM and CoC due diligence certifiers; national to concession level



Possible cases

Product type



Trade claim: origin and tree species

Bill of Lading Template

Bill of Lading Short Form

Carrier: _____ Date: _____
 Bill of Lading #: _____ PO #: _____
 Order #: _____
 Shipper/Consignor: _____
 Consignee: _____
 Instructions: _____

Item Code	Details	Quantity	Weight (Units)

Annex 2 Standard CITES form

CITES CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA

PERMIT/CERTIFICATE No. _____ Original

EXPORT
 RE-EXPORT
 IMPORT
 OTHER

2. Valid until: _____

3. Country of import: _____

4. Exporter/consignor (name, address and country): _____

5. Species/condition: _____

6. Name, address, holding certificate and country of management authority: _____

7. Species of the specimen: _____

8. Number of the transaction (add receipt): _____

9. Security stamp no.: _____

For the annex, the control authorities shall only fill the transport conditions comply with the 3-7th Use Annexes Regulations for live plants, with the 3-7th Permitted CITES Regulations or in the case of marine invertebrates, with the CITES Guidelines for the Non-Air Transport of Live Wild Animals and Plants

Indonesian LEGAL Wood

1. Issuing authority: _____

2. Importer Name: _____ Address: _____ Country of destination and ISO Code: _____ Part of shipping: _____ Value (USD): _____

3. Legal business number: _____

4. Date of expiry: _____

5. Species of import: _____

6. Species of export: _____

7. Means of transport: _____

8. Bill date: _____

9. Invoice Name: _____ Address: _____

ETPW Number: N/A. Tax Paper Number: _____

Inspection

Expert on-site

High throughput tool

Inspection result

“High accuracy assessment of species and origin is required” (e.g. in support of court case)

Find required expertise from GTTN Service Providers Directory (SPD)



- GTTN SPD will provide information on available scientific methods and tools (Genetics; Stable isotope analysis; Mass spectrometry; NIRS; Wood anatomy incl. machine vision; Dendrochronology)



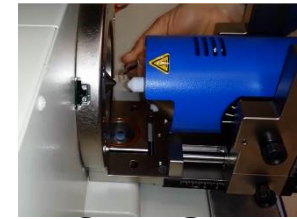
genetics



anatomy



isotopes



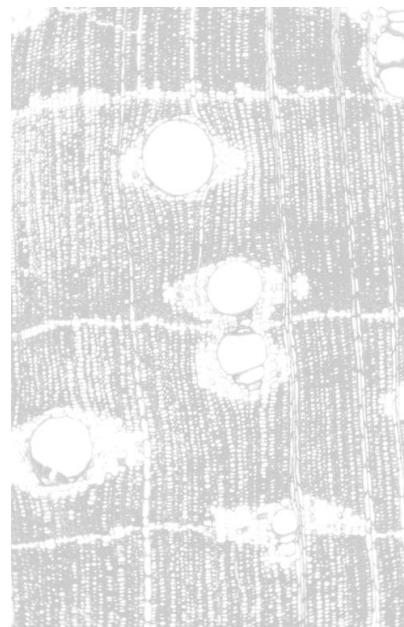
spectrometry

- **Lab query and selection** based on wood product type, declaration/assumption of species and origin, lab proximity, analysis method, lab certification/accreditation (a.o.)
- **Result: list of service providers with contact options**

Seeking a holistic approach to timber tracking

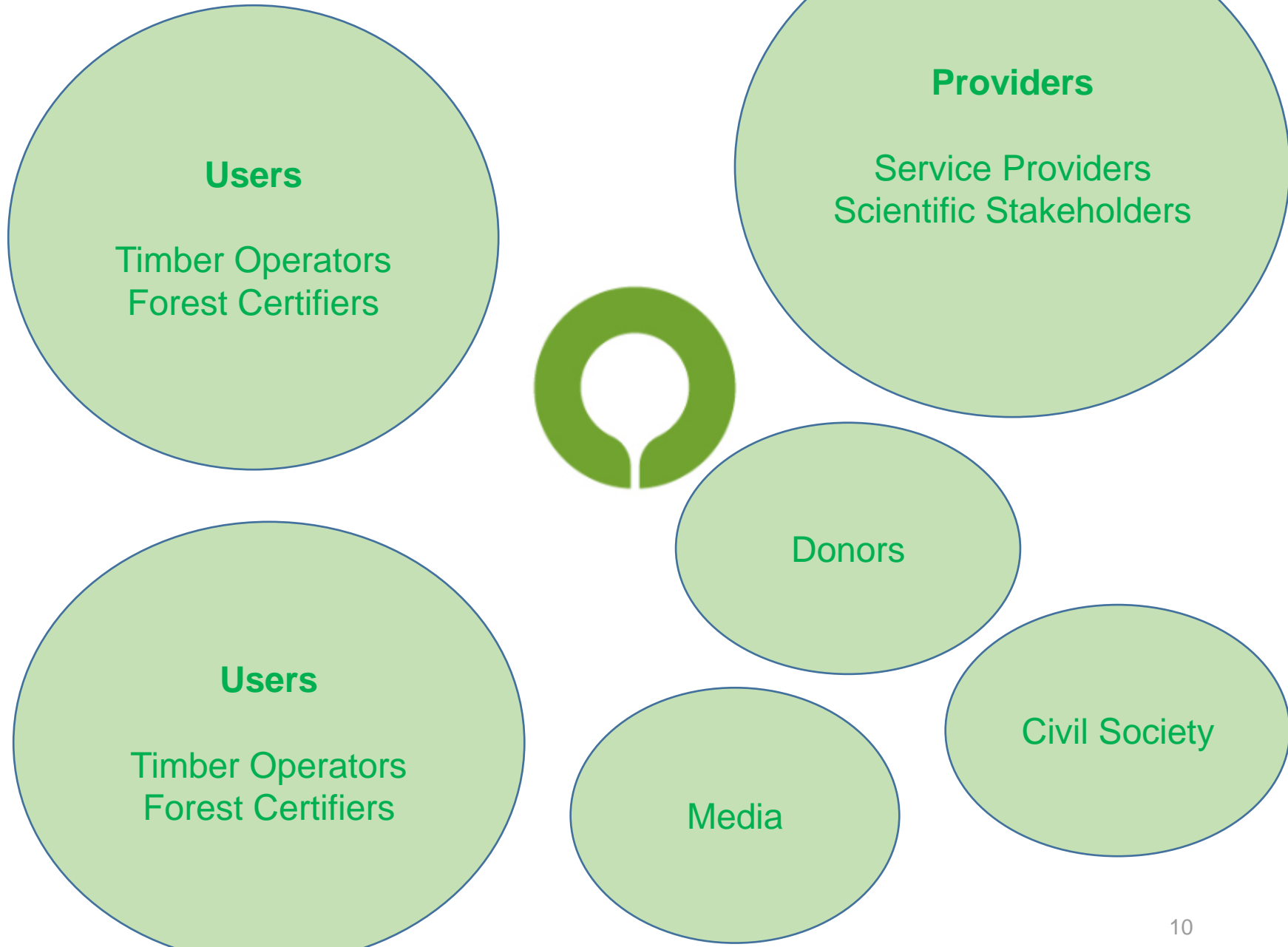


- ✓ Genetics
- ✓ Stable isotope analysis
- ✓ Mass spectrometry
- ✓ NIR
- ✓ Wood anatomy, machine vision
- ✓ Dendrochronology, radio carbon



- Product type and available expertise can impact method selection
- Combination of methods could cost-effectively increase accuracy
- We promote sampling for reference data creation to serve all methods

Development with, by and for stakeholders





A growing global network

Experts and stakeholders for wood and origin identification



The network remains open for registrations: for developers, providers and users of timber tracking, and interested stakeholders.



GTTN work programme

- Service Providers Directory
- Reference database
- Networking events, advocacy
- Standardization, harmonization



Collaborative effort →

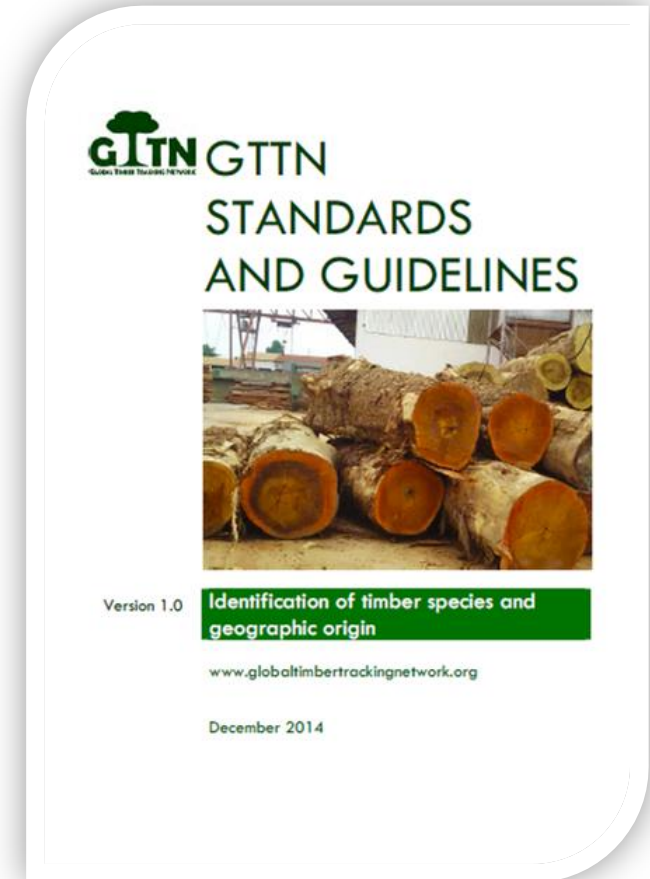
Cross-cutting themes for method-specific working groups

1. Standardization, Harmonization



Contribute to international standard setting on:

- Sampling
- Material storage and transport
- Material exchange
- Methods for tests on tree species and geographic origin of timber
- Organisation of ringtests, blind tests
- Applicable regulation



Innovation is in the combination of methods

WG1



Pilot study on:

Experts on:

Step 1

Step 2

Sapele

lead:
Bernd Degen

DNA

Isotopes

DART MS

Try-out different ways to identify (i) taxon, or (ii) origin of timber

Douglas fir?

DNA

Isotopes

DART MS

> using a single or a combination of methods
> combining data in a single analysis or combining results in a single interpretation

Cedrela

lead:
Kathelyn Paredes

DNA

Isotopes

DART MS

Write a **guideline on selecting and combining timber tracking methods** (with flexible parts where needed to account for specific conditions, see next page)

- > for researchers (how optimize use of current tools)
- > for end-users (which method for which question)

together with WG3

Step 3

Discuss the need for **sampling, data analysis and lab work guidelines** to allow and facilitate these combinations of timber tracking methods

Step 4

Develop with the method experts the required guidelines for (i) sampling, (ii) lab work and (iii) data analysis and interpretation.

Based on the guidelines set up in the previous steps, develop a list of **quality indicators** for the reference and expert database (f.ex. included via a colour code), per method:

DNA

isotopes

DART MS

DNA

Isotopes

DART MS

lead:
Céline Blanc-Jolivet

lead:
Manfred Groening

lead:
Ed Espinoza
Cady Lancaster

Step 6

Step 5

Compare the sampling guidelines and merge into 1 method-independent sampling guideline if possible

2. GTTN information services Reference Database



For participating laboratories:

- Query existing reference data
- For any wood-ID method
- Data holders define access condition

Data repository

- Metadata in one location
- Data in central or distributed databases
- Secure data entry and storage protocols
- Differentiated access levels

TreeGenes Database

Welcome to the new TreeGenes Database!
Powered by Tripal!

<https://treegenesdb.org>

ELASTICSEARCH

EXPLORE TREEGENES

- Browse Genomes: Browse genomes with JBrowse
- CartograTree: CartograTree is a map-based web app...
- Download Data: Download data from our FTP site
- Sequence Search: Search sequences with DIAMOND
- Species: Find your species of interest
- Submit: Submit your data to TreeGenes

- Exploring cooperation with TreeGenes
- Fulfills design requirements – not only DNA!
- Treegenes systems architecture allows for a separate GTTN platform to be developed



3. Advocacy

- Priority species list –revisited
- Memorandum of Understanding
- Protocols for reference data sharing (IPR, ABS)
- Research agenda development
- Assessing market for GTTN services
- Facilitating market access/development for GTTN services
- Advocate for funding and coordination between donors
 - e.g. Sampling campaigns, advanced dbasedevelopment etc.

Priority species list -revisited

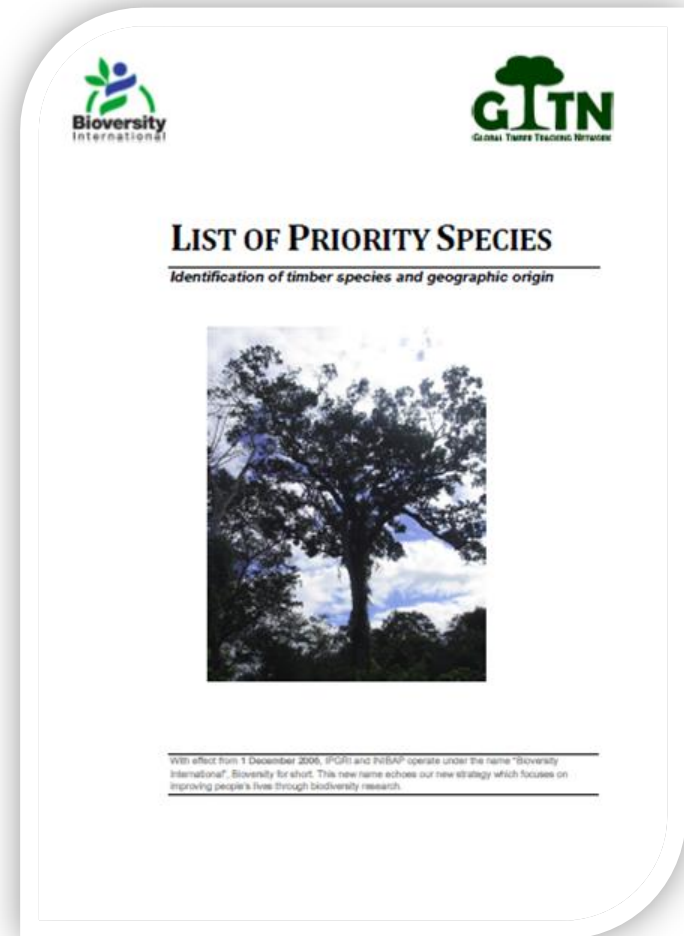


GTTN phase I produced a priority species list

- Conservation status (CITES, IUCN red list)
- Species anatomically difficult to recognize

Issues:

- CITES updated priority species
- Look at infractions/e.g. Interpol prosecutions data
- Lesser known timber species are being traded in increasing volumes
- Markets changing due to legislation, demography, developing economies etc.



Promote the coordination of sampling campaigns



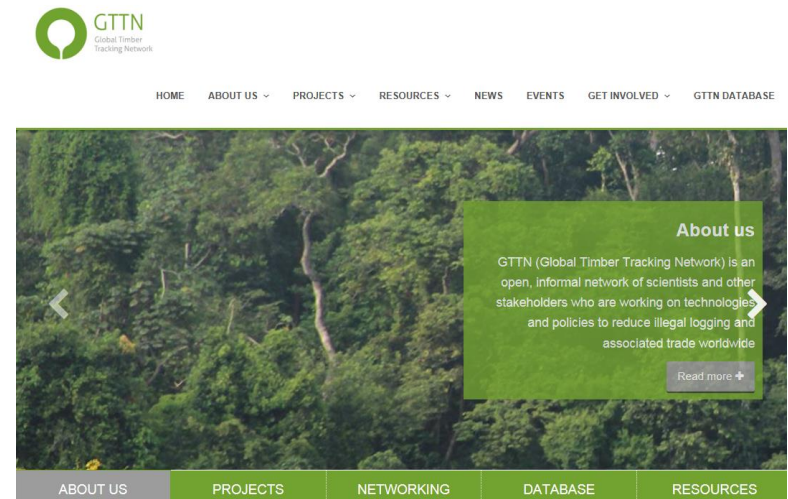
- Donors seeking to have complementary or mutually reinforcing interests
- Ref. FSC upscaling of sampling for geo-referencing
- Input requirements
 - Priority lists agreed
 - Mapping of what's done or being done already -> links to reference dbase
- Meanwhile keep responsive to upcoming issues (ref. enforcement, EIA, Global Witness etc.)

4. Communication, networking, outreach



Effective communication truly relies on contributions from all partners in the network.

- GTTN on-line : www.globaltimbertrackingnetwork.org
- GTTN news, guidelines and other PR
- WG and regional meetings
- Promotion of GTTN Associated Event





Media Outreach

Articles in relevant media and specialized press

Do you have stories or information to share?



For further info, please contact:

jo.vanbrusselen@efi.int, GTTN coordinator & advocacy topics
nele.schmitz@thuenen.de, WG1, standardisation topics manager
simo.varis@efi.int, WG2, information systems developer
gesche.Schifferdecker@efi.int, WG3, communications manager



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The objective of the Global Timber Tracking Network (GTTN) is to promote the operationalization of innovative tools for wood identification and origin determination, to assist the fight against illegal logging and related trade around the globe.

GTTN is an open alliance that cooperates along a joint vision and the network activities are financed through an open multi-donor approach. GTTN phase 2 coordination (2017-2019) is financed by the German Federal Ministry of Food and Agriculture (BMEL).