

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



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TRACEABILITY SYSTEMS SUPPORTING A SUSTAINABLE INTERNATIONAL TRADE IN ENDANGERED
SPECIES: EXAMPLE OF A SYSTEM USED IN THE TIMBER SECTOR

The attached information document has been submitted by Germany*.

The document has been prepared by *Global Traceability Solutions GmbH* (GTS) on behalf of the Scientific Authority of Germany.

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Traceability Systems Supporting a Sustainable International Trade in Endangered Species: Example of a System Used in the Timber Sector

Introduction

In CITES, there are various mechanisms and procedures available, including a well-elaborated paper-based permitting system, that enable CITES parties to implement international trade controls in timber and timber products.

However, to ensure that CITES listed timber and timber products are traded legally and sustainably, it is increasingly important to facilitate the traceability of CITES export timber through trade chains from the area of harvest to consumer countries through all steps in the value chain. Timber traceability systems also could assist the monitoring and reporting systems in CITES, thus making it more difficult for illegally logged timber to escape detection.

Timber tracking technologies, well adapted to CITES requirements, could strengthen transparency along the CITES timber trade chains, e.g. by enhancing the exchange of information between CITES authorities and stakeholders involved in CITES timber trade on the legal and sustainable origin of CITES timber products or by hampering the fraud of CITES permits. .

In recent years some electronic timber tracking have been developed and are successfully used in a broad range of various applications.

A good general overview on timber tracking systems has been provided by ITTO in a recent report (ITTO (2012): Tracking Sustainability. Review of Electronic and Semi-Electronic Timber Tracking Technologies. ITTO Technical Series No.40).

This paper emphasizes on how such a system could contribute to efforts to better implement CITES related timber traceability and support transparency throughout the supply chain.

The objective

The issue and ethics surrounding the utilization of trees for lumber is oftentimes both expansive and ambiguous. Not only are there questions of sustainability (i.e., given the current rate of harvesting, can a particular species continue to reproduce at a sustainable rate so that demand will not outstrip supply?), but there's also the matter of habitat destruction (i.e., even if a tree species can be sustainably harvested from the wild, would doing so destroy or endanger other species in the same habitat?).

Further mixed into this cocktail is the fact that for some countries—especially poorer third-world countries—lumber is big business, and placing a restriction on such a lucrative sector of their commerce would be seen as counter-productive, and consequently actual or potential levels of exploitation may not be easily or readily discovered.

However, the complexity of the issue and the incomplete or even possibly faulty data require actions to come up with innovative approaches to gain more transparency and information on the actual supply chains.

What is needed and what are the options

What is urgently needed is a real-time, electronic verification system that can track a specimen from source to final product. The creation of a global system with modern tracking technologies, processes, and branding would help to save endangered species, protect our planet's wildlife, and compensate local communities.

A wide range of technologies and applications now used for human identification – such as optical and sound recognition, laser and satellite imagery, DNA analysis, and data mining, to name a few – can be adapted to advance this traceability strategy. For example, today's technologies and information systems are perfectly capable of determining a tree species, scanning a python or crocodile skin and tracing a small piece back to the source. The introduction of a powerful tracking system would make abuse of the permitting system significantly more difficult.

There are a few options how such an electronic verification system can be developed and implemented:

- Each organization involved in the production and trade of endangered species develops and implements its own system
- Build a “new” system from scratch
- Use of an existing system and add specific functionalities

The option of each organization building its own electronic tracking system is not realistic for cost and know how reasons. Especially smaller companies will not be able to cover the investment cost for development and in many cases will not have the know how needed to build such systems. Furthermore, interoperability of systems will create a big issue of linking complete supply chains.

Building a new system from scratch is a valid option but would involve a major investment in development. The provision of the necessary funds can be a hurdle and delay the process.

The third option of using an existing solution seems the most efficient approach with obvious advantages with respect to cost, time to implementation and risk. A proven solution which is user friendly, scalable to cover all kinds of supply chains and cost efficient for large and small supply chain stakeholders could prove to be the most attractive solution.

Available technologies that can be used by CITES to improve the regulation, enforcement, and public awareness of international trade in endangered species.

General functionality expectations for a Global Traceability System

The general functionalities of a global traceability database need to be:

- Web based tool available to potentially all stakeholders
- Real time operation
- Role based system access rules
- Multi lingual
- User friendly, flexible and agile solution
- Reporting capabilities

- Integration with existing systems in place
- Ability to anticipate and integrate future legal or operational requirements
- Cost and time efficient solution in terms of development and deployment
- Strong system security

Example of a system implemented in the timber industry

Global Traceability Solutions GmbH (GTS) is a leading provider of solutions to support timber legality (European Timber Regulation EUTR), traceability and supply chain visibility with a focus on sustainable raw material sourcing.

Founded in 2010, GTS initially focused on building a global platform for timber and timber-related products. Today, its cloud-based platform is used by more than 63,000 companies to enable chain of custody, due diligence and risk assessment and to allow retailers, manufacturers, importers and exporters as well as raw material producers to administer compliance efficiently across their supply chains (www.radix-tree.org).

GTS has developed the system together with major EU retailers and their supply chain stakeholders. The system is used for the timber industry and serves as a system for major retailers and brand owners to document legality, certification status and sustainability of timber and timber based products. In addition the platform is used by the world largest forest and timber certification scheme PEFC to support certification of timber and timber based products from forest all the way through the supply chain.

The system is also used by one of the largest consumer goods producers, Unilever, to support their sustainability strategy. The GTS platform is used to collect supply chain information on sustainability criteria of paper and board products

The fact that an operating platform exists already provides a basis to firstly generate time and cost efficiencies as the platform is used commercially by more than 63.000 companies. Secondly, GTS will be able to precisely meet specific requirements related to the trade of endangered species through tailoring of the highly flexible platform.



Welcome to RADIX Tree

Thank you for joining RADIX Tree, the global platform for timber and timber based products. Here you can not only manage your international requirements with respect to sustainability and compliance but also communicate your achievements to the outside world.

The platform enables you to collect information throughout your supply chain and share it with your clients. This gives you a competitive edge in the ever more demanding environment of sustainability and compliance. Bring your suppliers and clients along to the platform and allow them to benefit from the network as well.



The Unilever Sustainable Living Plan is committing to a ten year journey towards sustainable growth. What makes our Plan different is that it applies right across the value chain. We are taking responsibility not just for our own direct operations but for our suppliers, distributors and - crucially - for how our consumers use our brands.

Unilever is the first global fast-moving consumer goods company to commit to sustainable paper sourcing on this scale within a clearly defined timeframe. We will buy paper packaging that comes either from well-managed forests or from recycled material, whichever is best in order to ensure product quality. To achieve our goal, we work closely with GTS, our suppliers and other stakeholders.

Figure 1: RADIX Tree, the GTS timber platform

Figure 1 shows the landing page of the timber platform RADIX Tree.

Figure 2 shows the interface once a user has logged onto the system. The main functionalities are:

- **Section My Business Relationships:** in this section all relations with suppliers and clients of the user are maintained. New relationships with new suppliers or clients can be created instantly by inviting these organizations into the business relationship (see figure 3)
- **Section My Products:** in this section all products are documented including all their relevant criteria and documentation such as certificates, quality documents or composition. In addition the production process with all its inputs and outputs can be documented in this section. Conversion factors can be applied to reflect the losses of material in a production process.
- **Section My Inventories:** in this section inventories are managed both on the incoming side for raw materials and on the outgoing side for finished products. The inventory functionality allows for volume based tracking and mass balance making sure an organization is not producing more products than the available input of raw materials (see figure 4).

- Section My Shipments: in this section the physical movement of material between supplier and client is created and documented. The function of shipments is the key functionality to create traceability / Chain of Custody across supply chains.
- Section My Account and Administration: in this section administrative functionalities for the individual user are available
- Section Support: in this section an automated support ticket system is connected to ensure quick and efficient support of users

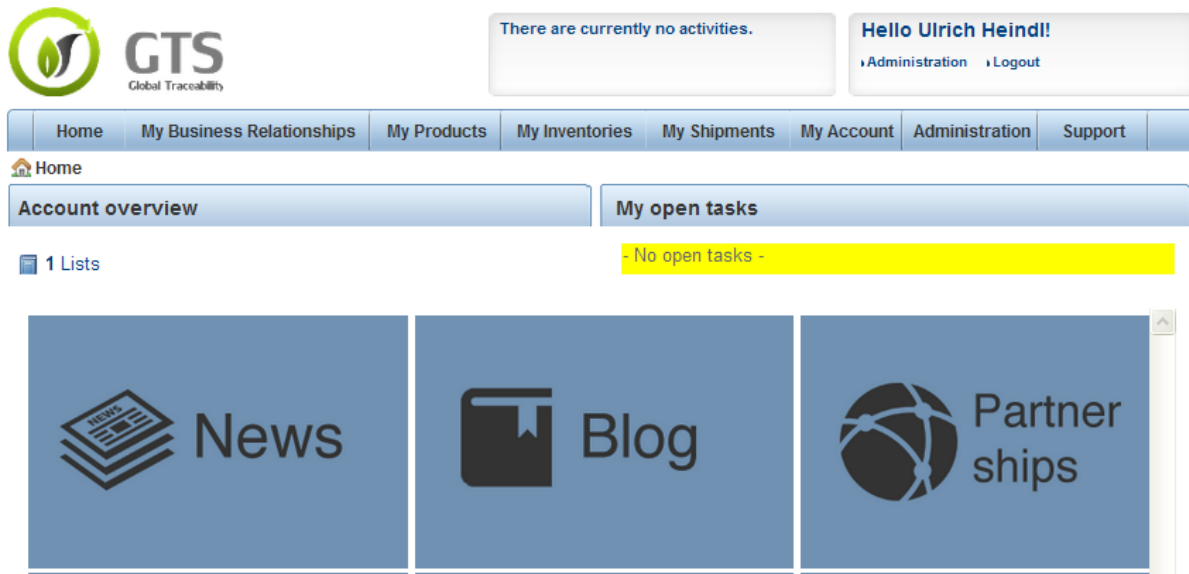


Figure 2: Main functional areas of the platform

Home My Business Relationships My Products My Inventories My Shipments My Account Administration Support

My Business Relationships **Business relationship**

My Business Relationships

- Add new supervising company
- Add new business relationship
- Import business relationship
- Import attachments/questionnaires

New company

Company Name

Company Description

Contact Person First Name

Contact Person Last Name

Contact Person eMail

Invitation text

Figure 3: Creation of a new relationship with a supplier or client

Home My Business Relationships My Products My Inventories My Shipments My Account Administration Support

Inventory new **New inventory information**

General inventory information

Inventory ID *

Inventory Name

Inventory Description

Type * Dynamic Static

Volume based * No Yes

Figure 4: Creation of an inventory with the option for mass balance

The system offers full flexibility in terms of data entry options. Predefined data entry screens for example, are the ideal option for an online data entry in companies with little IT infrastructure. A second option is to upload data directly from internal systems, Excel files, XML or CSV formats. This data upload can either be initiated

manually or can be automated through connectors between the internal system and the platform. This data entry option is especially important for larger companies where manual data entry processes are redundant. A third option is the data upload through mobile devices such as PDAs or Smart Phones. This option has its major advantages in areas with limited or no internet connection.

The system allows any type of data format to be loaded into the platform from numeric values, all type of text, documents or multimedia files. As soon as data is uploaded with one of the above described options this data will be visible in the system and resulting reports can be generated in real time. The master users for a set of suppliers will always be informed through a message service on changes in the data sets of suppliers they are in charge for. Data changes, modifications, corrections and updates are recorded and can be viewed through the platform user interface.

The RADIX platform is fully developed and currently used by about 63.000 organizations. The platform does already accommodate extensive tracking functionalities. Therefore no extensive development is necessary to create the platform. An adaptation of the existing platform will ensure all requirements are properly reflected and a timely implementation with selected operators is feasible within a very short period of time.

GTS provides the RADIX platform under a SaaS (Software as a Service) model. Against a subscription fee the user gets access to the complete functionalities, maintenance and upgrades. The support functionality is available on a 24/7 basis.

In addition to the platform GTS also provides training either in the form of web trainings, if required on a one to one basis or as physical sessions.

The business model has been developed together with the industry and is based on the number of business relations (number of relations to suppliers and buyers) an organization maintains. Currently the smallest available package starts as minimal cost of only 15€ per month.

The way forward

The need for a global tracking and verification system that can track a specimen from source to final product is obvious. Today's technological environment offers all necessary tools to implement an efficient system to meet the needs of different product areas and industries.

IT Systems are already widely used in the timber industry for purposes such as legal compliance (EUTR or Lacey Act) or for sustainability documentation. Any additional requirements specifically relevant for endangered species can be added to the core functionalities by adaptation of the existing platform.

One example is the system developed by GTS which could be tested in a pilot project for few selected segments (specimen) to demonstrate how efficient tracking and verification would work and to identify areas for adjustment to have a solution which CITES could use to cover its needs for improved regulation, enforcement, and public awareness of international trade in endangered species

Recommendations

Countries should take advantage of the information presented above and discuss, how a traceability platform like GTS can contribute to the implementation of the CITES permitting system for timber and timber products, and also consider, if this system could be used for other CITES products