

Meeting Summary:

Timber Regulation Enforcement Exchange:

London, UK

March 13-15 2019



Department for
Business, Energy
& Industrial Strategy

Office for Product
Safety & Standards

Introduction

Background: Forest Trends has been working with officials from the EU Member States, Australia and the United States (US) Lacey enforcement agencies over the last seven years to further understanding of complex high-risk supply chains for wood products and to support coordinated implementation of the EU Timber Regulation (EUTR), the Australian Illegal Logging Prohibition Act (ILPA), and the US Lacey Act. This process, known as the Timber Regulation Enforcement Exchange (TREE), is an ongoing series of networking and information-sharing meetings which bring the growing group of officials together.

Objective: The TREE process aims to support robust and consistent enforcement of demand-side timber regulations by providing a forum for officials to gain detailed insight into high- and low-risk timber flows entering their countries. At these meetings, participants discuss practical enforcement issues, establish emergent norms for Due Diligence/care in relation to different forest products, and build relationships with producer country governments, industry representatives, and other stakeholders involved in combating illegal logging and promoting global markets for legal timber.

London Meeting: Held in London, United Kingdom (UK) from March 13 to 15 2019, this TREE workshop brought together a core group of five US Lacey Act enforcement agencies, eighteen EU Timber Regulation (EUTR) Competent Authorities (CAs), Australia's Department of Agriculture and Water Resources, an observer from Ghana's Forestry Commission, and key experts from the private sector and civil society.

The following report summarizes the presentations and discussions from the TREE meeting in London. Notes were not taken during government-only training sessions covering forest sector risks in the Democratic Republic of the Congo, Honduras, and the Russian Far East. In addition, this note only reflects the presentations that expert speakers have given permission for Forest Trends to publicly summarize.

Several topics were covered throughout the week, including:

- a) Country/regional updates to support an understanding of current legality risks and Due Diligence standards for timber sourced from Brazil and Turkey.
- b) Document training sessions for enforcement officials to help assess compliance for timber imports coming from the Democratic Republic of the Congo, Honduras, and the Russian Far East.
- c) New resources to support risk assessment and the efforts made by certification bodies to improve transparency around certification claims.
- d) The latest science-based authentication technologies and how these are being used to support enforcement.

Brazil

Presentations

Yulia Stange of ClientEarth provided an overview of the Forest Logbook, a new online tool and hub of resources on timber legality. The Forest Logbook is organized by country and provides links to relevant forest sector and other sector laws. Ms. Stange noted that the Forest Logbook is designed to provide unbiased and impartial legal information. As such, the Forest Logbook has a lot of pertinent information to assist in a risk assessment, including government contact details, links to relevant country legislation, as well as other resources such as the UN Environment World Conservation Monitoring Centre (UNEP-WCMC) country overviews and Timber Trade Portal country pages. Where relevant, the Forest Logbook also lists enforcement cases and advice. In the case of Brazil, the site links to further information on Interpol's 2016 issuance of a "Purple Notice" for illegal timber trading in Brazil. Ms. Stange highlighted that ClientEarth is continually improving the tool and have already added an indicator to let users know when the webpages are not in the language of the search.

Catherine Rutherford of Forest Trends provided an update on Brazil's proposal to list *Handroanthus* (Ipê) in Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), submitted to the next Conference of the Parties (CoP) which will take place in Sri Lanka in May 2019. Brazil stated that the genus, and two other look-a-like genera met the criteria under Article II 2a) and II 2b) of the Convention as it may become threatened unless trade is regulated. There have since been unconfirmed reports that the proposal will be withdrawn due to industry pressure. While both Brazil and Ecuador are named on the proposal, the CITES Secretariat has not received a letter of support from Ecuador which means that the proposal will be withdrawn if Brazil withdraws support. A CITES listing depends on both biological and trade criteria; *Handroanthus* is particularly vulnerable to logging due to natural low densities and slow growth rates, and Ms. Rutherford indicated that harvest is not sustainable at its current rate. The wood is heavy, dense, and rot-resistant and used mainly in decking and flooring. Brazil is the largest exporter and the US, China, and the European Union (EU) are the main importers. However, the protection offered to a species by CITES can be variable; while CITES is legally binding and can help regulate the trade in threatened species, CITES does not replace national laws, so Parties have to amend their domestic legislation to include CITES obligations and this can be inconsistently applied. In comparison to other measures directed at reducing illegal logging, under CITES it is not the operators who are required to undertake due diligence (and who are ultimately liable for violations), but the Parties themselves who are subject to compliance measures for violations of the Convention. These measures are often slow and inconsistent. Ms. Rutherford finally updated the participants on a new resolution which was approved by the CITES Standing Committee in October last year containing non-binding guidelines on how to verify legal acquisition. This will go to CoP18 for adoption, together with an amended resolution on compliance and enforcement that outlines the Parties' due diligence and importer responsibility requirements. This is a welcome step to avoid undermining other legislation aimed at enforcing legal trade in timber, such as the EUTR, ILPA and Lacey Act.

Discussion

One participant asked if there was any increase in demand for a product once it becomes CITES-listed. Ms. Rutherford suggested that demand likely remains relatively constant. Ms. Rutherford also further emphasized that while CITES supports sustainable trade, it does not ban trade outright.

Turkey

Presentations

Marigold Norman of Forest Trends presented trade data for Turkish furniture exports highlighting that while China dominates the global market for furniture manufacturing and export, Turkey is a growing hub and now ranks eleventh globally based on exports of all furniture products. The value of overall furniture exports increased from US\$488 million in 2009 up to \$1.5 billion in 2017, representing an increase of more than two hundred percent. Breaking the furniture categories down, more than ninety percent of exports fall under three furniture products (bedroom, other wooden furniture and seating). Bedroom furniture accounted for forty-three percent of Turkey's furniture exports in 2017 and steadily increased between 2009 and 2014 before plateauing at a value of roughly \$500 million annually. Ms. Norman highlighted that Turkey's main export markets are the Middle East and North Africa (Iraq, Libya, Saudi Arabia, United Arab Emirates, Egypt, Lebanon and Kuwait) as well as the EU, Russia, Georgia and the US. When export markets are broken out to include individual EU Member States, Germany and the UK and the two most significant consumers of Turkish furniture, importing more than US\$250 million since 2009. Overall, Turkey increased exports to eleven EU Member States over the period (Malta, Slovakia, Poland, Sweden, Czech Republic, Germany, Cyprus, the UK, Luxembourg, Romania and Belgium). Turkish exports of furniture have increased by more than fifty-five percent to the US with a spike in the volume from 2014. At the same time, Ms. Norman highlighted that Turkey continues to import raw materials including logs, sawnwood and wood chips from countries with reported risks of illegal logging and that it is critical to further understand the extent to which any higher-risk timber is being used to produce furniture products destined for regulated markets in Europe and the US.

Jake Willis of Efeca presented research looking at Turkey's furniture and wood processing sector. Turkey is now the fifth-largest source of furniture imported to the EU and accounts for a similar market share to Malaysia and Indonesia. Mr. Willis noted that there has been significant growth in the industry and Turkey's furniture production is forecast to surpass two percent of global furniture production over the next five years. There are five key centers for furniture production although furniture is produced in sixty different towns and cities across the country by Small and Medium Enterprises (SMEs). This decentralized production pattern can make the supply chain difficult to trace. In-country interviews with trade associations suggest that the furniture is predominantly sold in Europe by the European branches of Turkish furniture companies and there is a strong ex-pat market particularly in Germany and the UK. Mr. Willis explained that while Turkey produces significant volumes of raw materials such as wood chips, logs, and sawnwoods domestically, companies are also purchasing logs, sawntimber, veneer, and plywood from the Ukraine, Russia, and Scandinavia. Ukraine currently has a log export ban (LEB) in place and therefore, wood is now being sawn and exported from Ukraine to Turkey. The USA, Canada, and Ukraine are also important suppliers of woodchips to the panel industry which forms the basis of an estimated eighty-five percent of Turkish furniture. Interviews in Turkey also revealed that there is a noticeable preference for Forest Stewardship Council (FSC) certified wood when certification is

requested by the customer, but that by and large, suppliers only purchase certified wood when it is specifically requested by the buyer.

Suzanne McGuinness of the UK Office for Product Safety and Standards (OPSS) presented results from a recent enforcement project focused on furniture imported from Turkey. Ms. McGuinness highlighted that OPSS identified ten operators importing furniture from Turkey and assessed their level of compliance with the EUTR. Eight of these ten operators were identified as having limited awareness of the EUTR. Six of these operators were found to have no knowledge and were found to be non-compliant, three had limited knowledge and were also found to be non-compliant, while one operator (a re-visit from an earlier enforcement project) was found to have a Due Diligence System in place but was not fully compliant. While awareness and compliance across the ten operators assessed was ultimately low, Ms. McGuinness emphasized that by the end of the project compliance levels were up almost eleven percent.

Thursday March 14th 2019

New Trade Trends and Taking Stock

Presentations

Kerstin Canby of Forest Trends gave a brief overview of the global trade in illegal timber and some emerging trends. In particular, Ms. Canby highlighted the disparity between high Chinese imports and decreasing exports, suggesting a high volume of forest products remain in the country. At the same time, Ms. Canby explained that Chinese exports to “regulated markets” (jurisdictions with timber import regulations in place such as the EUTR, the US Lacey Act and the Australian ILPA), are increasing, while exports to un-regulated markets are decreasing. China and India are now the largest global importers of logs from countries with active log export bans in place. Ms. Canby also focused on new trade trends in Africa, noting that both Vietnam and China are increasing their imports of logs from the region, with China a major importer of logs from Equatorial Guinea, Nigeria, and Mozambique and Cameroon. Lastly, Ms. Canby concluded the presentation by looking ahead to future research that aims to draw parallels between cocaine or illegal drug trade flows and illicit timber trade.

Marigold Norman of Forest Trends outlined new research to identify global patterns of illegal logging and trade. The project, funded by the US Department of State, will support targeted enforcement of “high-risk” trade routes. To date, more than seventy indicators and risk criteria have been identified and have been used to assess trade data covering the past five years. The scope of the data collection and analysis will allow for a much better understanding of the risks associated with products sourced in one country but manufactured or transited through a third country prior to import. Ms. Norman provided a number of examples of how the analysis could be used to support targeted enforcement. One such example focused on EU imports of flooring products from Hong Kong and Singapore. Both jurisdictions are considered “low-risk” source countries if you consider national governance and corruption scores, which are often used as an indicator of the risk of illegal logging in a source country. However, Hong Kong and Singapore are not major producers or countries of harvest and actually have very low levels of forest cover. This means that exports from Hong Kong have often been harvested elsewhere. Hong Kong reports all imports and exports entering the country to UN Comtrade

including through free trade zones in the port. Flooring products sourced from Hong Kong have increasingly been sourced from a number of “higher-risk” countries. This multi-pronged approach to risk analysis allows for a better picture of the overall risk associated with illegal logging and trade.

Discussion

One participant asked how changes in the Corruption Perception Index (CPI) scores over the years would explain certain trends emerging in the risk analysis. Ms. Norman noted that Forest Trends has updated the underlying data on country governance risk over time to reflect updates to the underlying indices including the CPI. Forest Trends found minor variances, and these did not in general, affect a country’s overall risk ranking.

Mandy Carmody of Quality Solutions presented trade trends and a future-focused outlook for the wood furniture sector. Focusing on imports into the UK, Germany, and the US, Ms. Carmody noted that there has been an overall increase in most product categories over the last five years. The US is importing predominantly from China, Vietnam, and Canada. German and UK imports from Poland have increased significantly as well as from China and Italy. Vietnam and India are now major suppliers of furniture to the European market. Ms. Carmody suggested that recent political uncertainty has had a significant impact on the furniture sector, with many UK companies ceasing to trade due to concerns around increasing costs, decreasing consumer demand, and a shift to the online market. At the same time, there has been an increase in the number of online platforms offering Indian furniture. Ms. Carmody also offered some insight on material trends in the market due to increased scrutiny of supply chains. Timber is often removed and replaced with cheaper metals, particularly where supply chains are challenging to trace. Furthermore, many traders are asking their suppliers to change where they source their materials if risk is not negligible. Ms. Carmody emphasized the usefulness of stable-isotope testing as a risk mitigation measure but suggested that it is largely only being carried out by major retailers, not SMEs who rely on the honesty of their suppliers. Some challenges remain as many companies are not aware of the EUTR, or the EUTR merely acts as a deterrent, pushing higher-risk furniture products to markets with less scrutiny over supply chains. As such, Ms. Carmody called on the need for furniture sector guidance that outlines how best to comply with regulations such as the EUTR.

Discussion

One participant asked whether lack of awareness concerning regulations like the EUTR is a problem at the management level in major furniture operators. Ms. Carmody responded that awareness at senior levels is critical for effective commitment and compliance with regulations like the EUTR. However, when it comes to SMEs, management is more often concerned with cost implications and see the cost of compliance as significant. Another participant asked Ms. Carmody for suggestions around how to best communicate and raise awareness within SMEs. Ms. Carmody suggested attending trade shows which draw large numbers of independent retailers.

Science-based Authentication of Timber

Presentations

Dr. Cady Lancaster representing the US Forest Service International Programs, presented the latest developments on timber species identification using Direct Analysis in Real Time Time of Flight Mass Spectrometry (DART TOF MS). Determining the legality of timber is notoriously difficult, especially compared

to other wildlife products as there are over sixty thousand tree species. In determining species, DART is considered a low cost and fast technology compared to anatomy testing (which is low cost and slow) and genetic testing (which is more expensive and slower). A further complication in testing is that finished products, such as musical instruments and wooden jewelry, may include several species and destructive analysis is not often permitted. DART TOF MS is a minimally destructive technique that directly analyzes the small molecules located within the heartwood of timber. Dr. Lancaster explained that DART permits rapid analysis with no liquid extraction and no time consuming or resource demanding preparation steps. Each species has a unique small molecule mass profile, or chemotype, which is used for species classification. Dr. Lancaster explained that a database of reference samples is required in order to classify these chemotypes. To date, a global reference library collection has been underway to collate reference samples to support timber legality enforcement. While more reference standards are needed, the database is already being used successfully in forensic identification of wood products.

Meaghan Parker-Forney of the World Resources Institute (WRI) Forest Legality Initiative provided insight into how Non-Government Organizations (NGOs) can support science-based authentication of timber. Parker-Forney highlighted how testing can be used to verify the source of harvested timber and check paper-based documentation, which can be easily falsified, or the mixing/substitution of species can take place somewhere along the supply chain. Technologies that can test species and origin are developing rapidly, but few technologies are cost effective, or at scale. Additionally, Ms. Parker-Forney stressed that there is no one size fits all approach to this, as different technologies are appropriate for different end uses and users. Ms. Parker-Forney focused on two categories: technologies used for identifying wood and forest products, and technologies used for “perimeter defense”, or detecting and preventing illegal logging in the forest. This second category of testing could, one day, potentially assist companies and enforcement officials in understanding whether timber was harvested outside of allocated concessions or whether there has been encroachment into a protected or community forest - assuming adequate reference databases existed for the areas under investigation. With respect to enforcement, the need to identify the exact timber species or harvest origin of a product may not always be necessary. For example, at ports, often knowing if the product is different from what is being declared should be enough to raise a red flag for further investigation. There remain significant hurdles in scaling up technology so that science-based authentication can best serve critical enforcement needs.

Roger Young of Agroisolab highlighted that the due diligence requirements under the EUTR require operators to understand their supply chains before placing timber products on the market. Agroisolab works with enforcement officials in the UK, US, Sweden, Norway, Denmark, and Finland. Between 2016 and 2019, Agroisolab conducted over five hundred isotope analyses but were only able to test fifty percent of samples due to limitations in the global reference database of species. Of the samples that could be tested against references, thirty to forty percent were found to be mis-declared species. For reference, Mr. Young drew comparisons with experiences testing food products, noting that a misdeclaration rate above five percent for pork, beef, or vegetables would be considered extremely worrying. There are a number of challenges associated with using science-based authentication technologies to support enforcement. Turnaround time associated with testing samples and providing results can be a major barrier in the enforcement process particularly if the testing is covert. Mr. Young indicated that turnaround can be as quick as five days, but this would mean people are working through the night, and therefore, a more usual turnaround period will be a couple of weeks.

Discussion

In the discussion that followed, a representative of the German Competent Authority indicated that one hundred and seventy samples were sent to the Thünen Institute in Hamburg in 2018, mainly for species identification. The timber product categories with the highest proportion of wrongly declared species were pulp and paper followed by furniture. Misdeclaration was found to be much lower (five percent) in samples of sawn timber. Another participant updated the audience to highlight that FSC is collecting samples across their concessions to help further develop global reference data.

Resources for Risk Assessment Update

Presentations

Liz Womack of UNEP-WCMC, presenting on behalf of the European Commission, provided an update on overviews being developed to support the implementation of the EUTR. These overviews of timber source countries contain key information on forest status, timber trade statistics, specific risks to timber legality and relevant national legislation, and are designed to assist EU Competent Authorities in applying a risk-based approach to planning their checks on operators. Five country overviews for Brazil, China, Myanmar, Russian Federation, and Ukraine have now been published and Dr. Womack presented the summary findings. There has been a resurgence of illegal logging in natural forests in Brazil, including overestimation of valuable species (particularly Ipê) in logging permits. China's imports of high-risk timber pose a risk of illegal timber products being re-exported to the EU. In the case of the Russian Federation, there remain reported risks of illegal harvest in Siberia and the Russian Far East, while in Ukraine, there are reported concerns around the high level of sanitary logging. Difficulties persist in verifying the legal origin of teak from Myanmar, with additional risk posed by the illegal flow of teak into neighboring countries. A further twenty overviews have been drafted and, following input from relevant national ministries/agencies and non-governmental experts, will be published upon agreement of the EUTR/Forest Law Enforcement Governance and Trade (FLEGT) expert group. Published overviews will be regularly updated.

Shingo Masuda of the Finnish Food Authority updated the audience on research conducted by the Natural Resources Institute of Finland on Russia's LesEGALS-system. The LesEGALS system is an electronic timber tracking system that works as an electronic trade flow register. This register tracks trade flow information from the forest in Russia to export, with high value timber species carrying extra obligations. Currently, the report is only available in Finnish but there are plans to make this publicly available in English.

Marie Vallée of WRI gave an update on the Open Timber Portal (OTP), an online platform incentivizing legal timber by improving access to information. The OTP brings transparency to timber operations by compiling information from three different sources: official concession boundaries and the list of registered timber producers from the government, documents uploaded voluntarily by timber producers to demonstrate compliance, and observations by third party forest monitors. The OTP also operates a transparency ranking, allowing timber buyers to quickly see how many documents a company has uploaded. Currently, the OTP has over three hundred documents uploaded by companies operating in the Republic of Congo and Democratic Republic of Congo, with an additional two hundred documents about to be published for Cameroon. Although the OTP currently mainly focuses on the Congo Basin, the portal also includes almost three hundred observations from many different countries, including countries outside of Africa. An additional one thousand

observations are currently going through extensive quality control and could be published if they meet the OTP quality standard. Therefore, Ms. Vallée emphasized that the portal can also be useful to buyers sourcing outside the Congo Basin.

Virginie Vergnes of the Wild Chimpanzee Foundation (WCF) provided an update on Independent Forest Monitoring (IFM) in the Ivory Coast. WCF is the government-appointed IFM in the Ivory Coast monitoring classified forest, one of the two types of forest in the Ivory Coast (the other being rural forest). Imports from the Ivory Coast are considered high-risk due to the lack of regulation in-country and poor law enforcement. A lack of publicly available information on the timber sector makes it difficult for third-party IFMs to operate. WCF receives funding mainly from the Food and Agricultural Organization (FAO)-EU FLEGT program, and recently, from the French Embassy in Ivory Coast which has enabled them to conduct eight IFM reports on two of the two hundred and thirty-four classified forest concessions. Some key findings from the reports include that there is a lack of information on government control in both classified and rural forests and there is a lack of clarity around respective responsibilities of government operators regarding logging and implementation of management plans in classified forests. The reports also found a lack of respect for established procedures in issuing administrative authorizations prior to logging in classified forests, as well as a lack of respect for species quotas with harvesting taking place outside allocated boundaries in classified forests. These IFM reports serve as a tool when conducting EUTR due diligence and can also be useful to enforcement officials by indicating the different risks and the documents that operators should be able to present. All WCF IFM reports will be made available to operators looking to conduct due diligence via the Open Timber Portal (OTP), they are currently only available in French but will soon be available in English and Chinese soon. WCF is open to collaboration with buyers and Competent Authorities to mitigate risk. IFM has also started in rural forest (PEF – Périmètre d'exploitation forestière) by NGOs including Initiatives pour le Développement communautaire et la conservation de la Forêt (IDEF), Resource Extraction Monitoring (REM) and Ivorian Observatory for Natural Resources Management (OIREN) and should be available on the OTP shortly.

Joyce Lam of the Zoological Society of London (ZSL) presented on the SPOTT Transparency Tool. SPOTT - or Sustainability Policy Transparency Toolkit - is an online platform that assesses commodity producers and traders on the public disclosure of their policies, operations, and commitments to environment, social, and governance issues. SPOTT was initially launched in 2014 and focused on the palm oil sector. The tool has more recently been expanded to include the timber sector, focusing on seventy palm oil companies and fifty major companies sourcing tropical timber and pulp. Ms. Lam noted that ZSL has developed a timber and pulp indicator framework which includes over one hundred different indicators designed to assess company operations, policies, and commitments. Companies on SPOTT do not report directly to ZSL. Instead, ZSL sends a draft report and companies have four weeks to respond and expand upon the reported information. Ms. Lam noted that there is a direct correlation between an increased level of certification and an increased SPOTT score and that the main user tends to be the finance sector but that there are indicators related to certification schemes and relevant legality criteria that could be of use to enforcement officials. The SPOTT tool also includes reports and stories from global media sources through a media monitor function, which provides additional relevant information about companies.

Certification

Presentations

Rémi Sournia representing the Programme for the Endorsement of Forest Certification (PEFC) presented recent work with the Myanmar Forest Certification Committee and updated on the status of certification in Myanmar. Mr. Sournia noted that PEFC is the world's largest third-party certifier, recognizing more than one hundred and eighty thousand chains of custody in seventy countries and representing more than three hundred million hectares in forty-three countries. In Myanmar, the main objective for PEFC is to support a national forest certification system. The goal is to create a stepwise approach so that companies and stakeholders within Myanmar progress together, highlighting the viability of trade. Mr. Sournia concluded by encouraging TREE participants to get involved, inviting them to the project's seminar on April 30th in Yangon.

Barber Cho of the Myanmar Forest Certification Committee (MFCC) provided an update on the Myanmar Timber Legality Assurance System (MTLAS). The MFCC recently reformed its committee structure to include stakeholders from departments and organizations under the Ministry of Natural Resources and Environmental Conservation, other relevant Ministries, and representatives from the private sector and environmental NGOs. Mr. Cho indicated that the MFCC is committed to ensuring that auditing of the MTLAS/MFCS is carried out to recognized international standards by independent and impartial third-party Certification Bodies. Mr. Cho briefly described the meanings of the hammer marks used in the chain of custody, before describing the current status of MTLAS. Mr. Cho described how standards were developed in 2013 by MFCC based on existing rules and regulations, and then highlighted some of the main challenges which include transparency, third party certification, accessibility, documentation and utilization of information technology (IT). Right now, Mr. Cho stated that the MFCC is testing the MTLAS through a series of trial shipments to audit sawmill and forestry compliance. The goal of these tests is to ensure the legality status of exports and product traceability. Mr. Cho concluded by stating that MFCC aims to create a legal and sustainable forestry sector, and that the MFCC and PEFC project supports risk mitigation and a gradual shift towards sustainable forest management.

Christian Sloth of NEPCon presented recent research looking at transparency surrounding certification claims and the ways in which these can be checked. Mr. Sloth introduced NEPCon's certification evaluation standard and checklist, a framework and template for evaluation of a certification or verification system to assess its ability to provide assurance of the legal harvest, transport, and trade of forest products. This system includes definitions on legality, supply chain, and chain of custody requirements as well as quality assurance requirements. In evaluating legality, NEPCon includes criteria covering the legal right to harvest, taxes and fees, third party rights, and trade and transport. In evaluating chain of custody and quality assurance standards, NEPCon considers system requirements, transparency, competence and qualifications, as well as audits and assurance providers. Applying this evaluation to FSC, PEFC and Origine et Légalité des Bois (OLB), it becomes clear that each of the certification standards have elements that are only partially fulfilled. This means that it is important for operators to proactively check certification claims to ensure that the certificate is authentic, valid, and was issued to the company selling the material. It is also critical that operators check that the certificate covers the material imported, and that the information on the invoice is correct and matches the certificate. Mr. Sloth encouraged participants to check FSC and PEFC certificates by comparing invoices with certificate information contained on online databases. Mr. Sloth concluded by indicating that the certification schemes evaluated are working to improve the integrity of their processes to ensure transparency of certification claims.

Phil Guillery of FSC presented on efforts to reconcile volumes of FSC certified material and the use of blockchain in the FSC system. Currently when a company sends an invoice to its trading partner, both companies are required to record that invoice as either bought or sold FSC certified material. The volume summary for each of the two companies is verified by the certification body through random sampling. This means that FSC verifies that all the volumes add up. However, Mr. Guillery indicated that this system is not always one hundred percent effective. One example is when suppliers “forget” to tell their clients that they have lost their FSC certificate – or if the certificate never belonged to the supplier in the first place. A certified company should verify the status of all of their suppliers every time they receive an invoice and shipment. In reality this is seldom done – especially if the company buying the product is not certified themselves but is rather buying finished FSC certified products. This can potentially lead to products that are not FSC certified being sold as FSC certified. Mr. Guillery highlighted that FSC is working to close these loopholes. Certification bodies now request volume information on an invoice level from their clients on a quarterly basis. The certified companies send a list of what they have sold and bought in terms of volumes, species and product type connected to each invoice number. The records are then matched up and any discrepancies investigated by FSC. This new system has resulted in a number of companies being fined and excluded as well as the removal of falsely labelled FSC products from the market. But this process is slow and therefore FSC has been exploring the use of blockchain technology to create private blockchains between trading parties involved in each supply chain which FSC will be able to check.