HAFL Master's Thesis Abstract

Year:	**2015**
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English Title:	**Advanced Supply Chain Traceability and Screening Systems for Legality Verification in the Forest Sector – technical and institutional obstacles and opportunities for wide-scale implementation**

English Summary: Authorities have banned illegal wood from their markets through new timber trade regulation, thus market participants need to be able to demonstrate legality of the material they trade and process. Species, origin and supply chain pathway are key information to verify legality of forest based materials in supply chains and Supply Chain Traceability (SCT) and -Screening (SCS) systems for the forest sector can gather this information. Promoting advanced technologies for timber tracking and wood identification is an important task of international forest governance. However, design and implementation of fully functional systems seems difficult. We explored the obstacles and opportunities for facilitating Legality Verification (LV) with technology in the global forest sector. The knowledge gap addressed is the lack of understanding why there is no large-scale uptake of advanced SCT and SCS systems and technologies. In our review, we discussed the institutional framework of LV and the role and incentive structure of different actors as well as different approaches to LV and the use of emerging technologies within these approaches. The review was complemented by a series of expert interviews. We interviewed representatives from trade associations and other private sector actors, spokesmen of certification schemes, experts and facilitators of advanced technologies and government representatives of Latin American producer countries, the US and the EU. As a main out-come we developed a framework to illustrate SCT and SCS activities in different sup-ply chains. This framework is helpful to facilitate the uptake of advanced technologies in LV. We also found that at this stage in the development of the international timber legality regime, institutional barriers are more prominent. Technical solutions for many important challenges in different supply chains exist. A lack of incentives, clear distribution of responsibilities, specification of legal requirements and a general objection to transparency slow down the process.

Keywords:	Legality verification, Traceability, Tracking, screening, Forest governance
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