The opportunities and challenges of implementing a timber chain-of-custody system in post-conflict Liberia

Thomas Pichet\textsuperscript{1}, Marie Laval, and Antoine de La Rochefordière

Illegal logging operations partly financed the 14-year long armed conflict in Liberia. Now that peace has been restored, the forest sector has the potential to generate substantial environmental, social and economical benefits. Still, efficient monitoring of logging operations is critical to safeguard Liberian forest assets and ensure that it effectively contributes to Liberia rebuilding process. The role of conflict timber in the Liberia civil war triggered the inclusion in the New Forest Reform Law of a requirement for the establishment of a Chain of Custody System. In 2007, following an international bidding process, the Government of Liberia contracted out the design and implementation of the Chain-of-Custody System – also called LiberFor - to the Swiss verification company SGS, in partnership with the UK-based software company Helveta. The Contract implementation is under the supervision of the Forestry Development Authority.

To date, LiberFor is the world’s most advanced nationwide verification system in place to monitor and verify wood products and associated revenues ensuring that the national forest resources contribute to the country’s sustainable development. Helveta’s CI World™ information system provides database technology, software applications, and hardware components to operate the end-to-end traceability system. LiberFor will track 100% of the wood products from forest concessions to the nation’s export gates and local wholesale markets. SGS provides overall project management and capacity building to national administrations. Forest sector stakeholders have now access to critical information enabling broad consultation and establishing a constructive dialogue with and among governmental agencies, logging companies and civil society members. The project will empower Liberia to effectively manage its forest resources and ensure that the forest sector restarts with a timber legality assurance system that meets growing international requirements to prevent illegal logging.

Despite the concrete achievements reached by SGS, the implementation of the Chain-of-Custody System is still facing several challenges, including the lack of capacity of forest sector stakeholders and a legacy of weak governance which still impacts forest management practices. Continuous efforts are needed to sustain the forest sector reform agenda. This will ensure that the Chain of Custody System supports the contribution of the forest industry to Liberia’s early economic recovery and the nation’s durable capacity to maintain accountability and viability in the forest sector.

Key Words: illegal logging, chain-of-custody, verification, governance, Liberia

Introduction

Since the 1990s, illegal logging is a central preoccupation in policy debates concerning forested tropical countries. Illegal logging deprives governments of billions of dollars in revenue, causes broad environmental damage, and threatens rural livelihoods (Kaimowitz, 2003). Rampant corruption and widespread violation of forestry regulations undermine the rule of law and discourage legitimate investments and business. The

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enforcement of the European regulation, the Forest Law Governance and Trade (FLEGT), and the new American Lacey Act, confirm that timber legality is a crucial concern of current international policy reforms.

Sustainable Forest Management (SFM) practices have recently gained ground through the development of FSC-certified commercial logging concessions in Central Africa (Nasi et al., 2006). Nevertheless, the certification alone is unable to address the problem of illegal logging. Brown et al. (2008) who consider forest verification as an emerging discipline, draw the differences between certification and verification. For the last 15 years, SGS has developed services aiming to ensure the legal origin and production of timber. SGS has implemented timber export control services aimed at timber producing country governments and Timber Legality and Traceability Verification services aimed at timber companies. In Liberia, for the first time, SGS develops a nationwide forest verification system based on a Chain-of-Custody System: wood products will be documented and tracked along the supply chain, from harvest to distribution of the points of export with, the primary objective to prevent illegal timber from entering the supply chain.

In Liberia, illegal logging has had a particularly profound impact, fuelling the 14-year armed conflict (Blundell, 2005; UNSC, 2003a; UNSC, 2003b; Karsenty, 2007, GoL, 2007). For 20 years, the forest governance system was based on the clientele practices of both presidents Samuel Doe and Charles Taylor who used forestry to enrich themselves and those important to them (Blundell 2008). Where governance is problematic, so—very often—is forestry (Brown, 2002). Therefore, progress in the commercial forest sector supported by adequate verification instruments can potentially lever wider gains in governance.

This paper gives an historical overview of the Liberia forest governance system to understand the principles underpinning the implementation of the nationwide Chain of Custody System. Then it draws elements on how the system is contributing to the ongoing forest reform and nation building process, and the challenges which it is facing for long term operations.

Background

Liberian forests profile

Liberia remains one of the most forested countries in West Africa. Its forests cover 4.3 million hectares, i.e., 45% of the total land area and represent 40% of the Upper Guinea Forest (FDA, 2006). The evergreen forests in the South East and semi-deciduous forests in the North West of the country concentrate a large number of the world’s tropical endemic species, which is one of the criteria for Liberia to be part of the Western African Forests Biodiversity Hotspot (Myers et al., 2000). Liberia’s tree cover comprises forests converted in large-scale plantations as well as forests dedicated to commercial forestry and/or community forestry, and to forest conservation (Table 1).

Table 1: Key data on tree-covered areas

<table>
<thead>
<tr>
<th>Area in '000 hectares</th>
<th>Proportion in percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total land area</td>
<td>9'580</td>
</tr>
<tr>
<td>Total “natural” forest area</td>
<td>4'300</td>
</tr>
<tr>
<td>- Areas dedicated to commercial forestry</td>
<td>2'300</td>
</tr>
<tr>
<td>- Areas dedicated to forest conservation</td>
<td>1'700</td>
</tr>
<tr>
<td>Estimated plantation area (mostly rubber)</td>
<td>1'000</td>
</tr>
</tbody>
</table>

Source: FDA, 2006

Globally the 25 hotspots contain two-fifths of the world’s most threatened species, roughly reckoned, while covering just 1.4% of Earth’s land surface (Myers, 2003).
The annual forest area change rate has been estimated at 1.8% between 2000 and 2005 (FAO, 2009). According to various studies (UNSC 2006, Baker et al., 2003), the main drivers for Liberian forests’ degradation are:

- land conversion for agricultural purposes,
- uncontrolled and illegal small-scale chainsaw operations that cut and process logs into planks also called pit-sawing (in 2006, pit-sawing remained a strictly illegal activity conducted by about 1’000 operators in roughly 200 areas - UNSC, 2006),
- mining,
- and during war unplanned and uncontrolled commercial logging.

**Historical overview of Liberia’s forest governance system**

**1989-2003: the “Conflict timber” period**

The conflict timber period coincides with the leading role played by Charles Taylor as War Lord and President of Liberia (Box 1). During those times, timber fuelled the conflict either as a direct exchange of timber for arms, or when logging concession was granted for example to the notorious Ukrainian arm merchant, Leonid Minin. Forest taxes paid were also diverted to buy arms: between 1999 and 2001, the Indonesian Oriental Timber Corporation paid at least USD 1.5 million to known arm dealers in lieu of taxes (Blundell, 2005) and at least USD 4.5 million in payments were made directly into bank accounts belonging to Charles Taylor himself (Blundell et al., 2007). Not only timber has financed the armed conflict but, private security forces employed by timber companies have also engaged in intimidation and other human rights abuses towards local people including massacres (Blundell, 2005; UNSC, 2006). The conflict in Liberia caused economical collapse however timber remained a functioning sector in which foreign companies continued to invest millions of dollars. It was only the increasing civil war that made timber companies withdraw from the forest sector and finally steered the ban on Liberia’s timber exportations in May 2003: “The Security Council […] [d]ecides that all States shall take the necessary measures to prevent the import into their territories of all round logs and timber products originating in Liberia” (Resolution 1521 (2003) Article 10).

**Box 1: Main dates related to the Liberian forest governance system**

<table>
<thead>
<tr>
<th>1989 – 1997</th>
<th>1st phase of the Civil War</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999–2003</td>
<td>2nd phase of the Civil War</td>
</tr>
<tr>
<td></td>
<td>• Charles Taylor exiled to Nigeria</td>
</tr>
<tr>
<td></td>
<td>• National Transitional Government of Liberia set up</td>
</tr>
<tr>
<td></td>
<td>• 15’000 troops deployed for the 2nd largest UN peacekeeping operation (UNMIL*)</td>
</tr>
<tr>
<td>16 January 2006</td>
<td>Inauguration of Ellen Johnson Sirleaf as first elected female President of Liberia and Africa</td>
</tr>
<tr>
<td>2006</td>
<td>• All former forest concessions claims declared null &amp; void (Executive Order N°1)</td>
</tr>
<tr>
<td></td>
<td>• New Forestry Law enacted</td>
</tr>
<tr>
<td></td>
<td>• UN sanctions on import of Liberia’s timber lifted</td>
</tr>
<tr>
<td>2007</td>
<td>International bidding process for a COCS Management Contract</td>
</tr>
<tr>
<td>2008</td>
<td>Beginning of COCS Implementation</td>
</tr>
</tbody>
</table>

* UNMIL: United Nations Mission In Liberia

*Source: adapted from Wily, 2006; Blundell, 2005 and GoL, 2007*

**2003-2007: New Liberian forest policy and emergence of the timber Chain of Custody system**
Fearing Liberia could return to violence despite Taylor’s exile, the UN made the combat against misappropriation of funds from natural resources a priority and conditioned the lift of the timber ban to (1) the establishment of security in the whole territory, (2) accountability and transparency of revenues from natural resources and (3) control of timber production and commercialization (Blundell, 2005; UNSC, 2006).

In June 2005, Liberia counted 42 forest concessions for a total area of 5.95 million of hectares (Karsenty, 2007). In 2006, the Forest Reform Monitoring Committee (FRMC) composed of various representatives of the Government of Liberia (GoL), the international community (LFI) and the civil society was established to lead a forest concession review process. Based on the report from the FRMC, President Sirleaf’s signed Executive Order N°1 declaring null & void all the claims to forest concessions.

The other critical step of the forest sector reform is the establishment of a new legal framework. Addressing illegal logging, developing SFM while fostering progress in governance and equitable sharing of revenues are some of the ambitious objectives of Liberia’s National Forestry Reform Law (NFRL) enacted in 2006. This landmark legislature is the result of comprehensive revamping of Liberia’s forest management, introducing governance principles at an unprecedented level in an African institutional framework. From now on, Liberian forests are dedicated to the three following uses: (1) commercial forestry aiming at developing industries and financing public goods and services through the collection of various taxes, (2) community forest management to enhance people’s livelihoods and other forest uses, and (3) forest conservation to maintain landscapes, preserve biodiversity and ensure environmental services (FDA, 2006). Table 2 presents the four types of forest permits for commercial uses.

### Table 2: Main features of the commercial forest permits

<table>
<thead>
<tr>
<th>Timber Contracts (TSC)</th>
<th>Sales Forest Contract (FMC)</th>
<th>Forest Use Permits (FUP)</th>
<th>Private Use Permit (PUP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area</td>
<td>5’000 ha maximum</td>
<td>50’000 to 250’000 ha</td>
<td>1’000 ha maximum</td>
</tr>
<tr>
<td>Duration</td>
<td>3 years</td>
<td>25 years</td>
<td>2 years</td>
</tr>
<tr>
<td>Type of operators</td>
<td>100% Liberian</td>
<td>National and international</td>
<td>Forest communities</td>
</tr>
<tr>
<td>Activities</td>
<td>Commercial logging</td>
<td>Commercial logging</td>
<td>No commercial logging. Commercial production and uses of charcoal, NTFPs, wildlife-related activities, tourism. Timber harvesting for local use</td>
</tr>
<tr>
<td>Location</td>
<td>Out of the permanent forest domain</td>
<td>Within the permanent forest domain</td>
<td>To be defined</td>
</tr>
</tbody>
</table>

Source: adapted from the National Forestry Reform Law, 2006

One of the most innovative components of the NFRL is the establishment and maintenance of a timber Chain of Custody System (COCS) to verify the origin of wood products and track payments by logging companies to the Government prior to the issuance of any export permit (GoL, 2006a). The NFRL specifies

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3 Since 2004, the Liberia Forest Initiative (LFI) has been coordinating the forest sector reform process. The LFI led by the FDA and the US Government aims to provide coordinated support to the Liberian forestry sector in cooperation with national and international actors of the Liberia forest sector. In 2004 and 2005, the WB, the EC, the FAO, the IMF and the World Conservation Union joined the initiative as well as the CIFOR.

4 NFRL, Section 13.5

5 NFRL, Section 13.5 b)
that the FDA may delegate the management of the COCS to “a qualified contractor, subject to oversight by the Authority” (GoL, 2006a: 38). Following an international bidding process in 2007, the contract was awarded to the verification company SGS. USAID provided an initial financial support of USD 1.64 million covering start up costs over the first 18 months of operation.

**Introducing LiberFor, the Liberian timber Chain of Custody System**

The NFRL was followed by the enacting of Ten Core Regulations providing a detailed framework for the implementation of the forest reform. The Regulation 108-07 presents the legal basis for the “establishment and operation of a transparent nationwide Chain of Custody System” (FDA, 2007c: 93). The mandate of LiberFor is based on the four following key activities.

- Firstly, it should allow for the traceability of forest products (logs and timber/wood products) from their origin in the forest to the point of sale and/or export. The traceability system is built on a web-based Information System (IS) reconciling data captured at critical control points along the supply chain. An essential element is the 100% geo-referenced forest inventory carried out by logging companies before harvesting.

- Secondly, the IS should issue invoices to logging companies for forest-related taxes due to the Government in line with the Ten Core Regulations (FDA, 2006c). In addition, the IS must provide monitoring of payments in collaboration with the Ministry of Finance and the Central Bank of Liberia to ensure that all payments are accounted for before any export permit is granted.

- Subject to full compliance with the Chain of Custody operating procedures, LiberFor authorizes and releases timber export permits from selected ports and overland border crossings.

- Finally, the contractor shall build the local capacity to manage the COCS through training sessions and information sharing. The IS, ultimately accessible to key governmental agencies, should be a unique platform for real time information-sharing on timber flows and the associated revenue.

**Results and discussion**

**SGS’ experience in forest verification systems**

Helveta and SGS have developed complementary timber verification systems at both company and country levels in Africa and Asia. Building on this experience, LiberFor is to date the world’s most advanced nationwide verification system in place to monitor wood products and associated revenues. The data collected through physical inspections, documentary control and eventually legality audits at every critical point associated to the forest management and timber chain-of-custody are registered into a web-based information system. The data reconciliation ensures that timber has been legally produced, acquired and sold at each step (Figure 1).

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6 The fees are divided into stumpage fees, land rental bid fees and forest product fees (FDA, 2007a)


* the Pre-felling requirements are: Bidders’ Bond, Performance Bond, Forest Management Plans, Annual Operational Plans, Social Agreement, Environmental Impact Assessment and Harvesting Certificate

**Assessing LiberFor achievements**

Our internal assessment of the LiberFor achievements is based on general criteria found in the SGS-GoL contract as well as on the expected benefits from a COCS.

**Table 3: Assessment of the LiberFor implementation**

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment</td>
<td>12 national staff recruited</td>
</tr>
<tr>
<td>Capacity building</td>
<td>- 12 national staff trained on information system management, log grading and scaling</td>
</tr>
<tr>
<td></td>
<td>- 40 employees of forestry companies with FMC/TSCs trained on forest management methods</td>
</tr>
<tr>
<td></td>
<td>- 10 FDA officers and company staff trained on log grading and scaling</td>
</tr>
<tr>
<td></td>
<td>- 4 members of the Ministry of Finance trained on CI World™</td>
</tr>
<tr>
<td>Forest monitoring and timber traceability</td>
<td>- 3 FMCs and 6 TSCs registered in the Information System with owner names, geographical coordinates, 7 pre-felling requirements, maps, forest inventories</td>
</tr>
<tr>
<td></td>
<td>- 75,000 trees tagged and registered in 2 FMCs and 3 TSCs</td>
</tr>
<tr>
<td></td>
<td>- 200 trees harvested and tagged as logs</td>
</tr>
<tr>
<td>Physical inspections</td>
<td>- Supervision of forest inventories (3 TSCs and 2 FMCs)</td>
</tr>
<tr>
<td></td>
<td>- Supervision of logging activities (in TSC #A2)</td>
</tr>
<tr>
<td></td>
<td>- Verification of log volume &amp; grade, and supervision of log tagging (in TSC #A2)</td>
</tr>
</tbody>
</table>
Accountability and transparency

<table>
<thead>
<tr>
<th>Accountability and transparency</th>
<th>16 invoices issued to forest contract holders and paid to the Central Bank of Liberia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenues collected on behalf of GoL</td>
<td>USD 143'000 collected as of 31st May 2009</td>
</tr>
</tbody>
</table>
| Information flow | Monthly reporting to the Board of Directors  
Inception report (2008)  
Reporting to the Advisory Committee |
| Cooperation with partner organizations | - FDA: joint inspections, implementation of project activities  
- UNMIL: provides assistance with law enforcement  
- USFS: technical support to FDA and LiberFor  
- LEITI: Sharing of information on revenue collection |

- **Project management.** The public-private partnership between SGS and the Government of Liberia is based on a 5-year Build-Operate-Transfer (BOT) project: SGS develops and operates the COCS, under the supervision of the FDA, during the contract lifetime. All the initial investments are financed by the USAID grant. Subsequently the ownership is transferred to the government and the facility remains a public-owned service. At present, the project is under the responsibility of 2 international staff (Project Manager and Operations Manager) assisted by 12 Liberian administrative and field staff (LiberFor staff).

- **COCS design.** Since the beginning of the operations in January 2008, SGS has developed a set of Standard Operating Procedures detailing every step of the tracking system - from forest inventory to timber export - for logging companies. A set of official documents including waybills have also been developed to allow the companies to record their operations.

- **Capacity building.** The national staff recruited by SGS has been trained in information system management, log grading and scaling according to ATIBT standards. Then the trained Field Officers provided on-the-job training to 40 logging company employees on the use of GPS and compasses, layout of survey lines and forest inventory techniques including forest mapping, plus scaling and grading. In addition, LiberFor provided extensive on-the-job training to 10 FDA officers and 4 key staff from the Ministry of Finance.

- **Physical inspections and documentary control.** To date, 5 concessions are operational (2 FMCs and 3 TSCs) and monitored by LiberFor staff. Since log transport, processing and export have not started yet, their inspection has not been conducted so far. The documentary control required has been made for the active steps (forest inventory to logging). Field Officers perform regular inspections of pre-felling and logging operations, providing feedback to the LiberFor Head Office on the progress of each company against pre-felling requirements and logging standards.

- **Chain-of-Custody Information System (COCIS).** The COCIS is a computerized information system based on the CI World™ software configured by Helveta. The web-based platform is supported by a set of hardware devices (servers, PCs, handheld computers and Internet connections). A key tool to ensure timber and wood products traceability is the use of barcoded tags which give a unique identification number to each product. Regular meetings ensure the reconciliation of information gathered by the tax administration and COCS. In the mid-term, the Ministry of Finance along with the FDA will be directly connected to COCIS ensuring better coordination and information sharing.

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7 Liberia is the first country to include forestry in the Extractive Industries Transparency Initiative (EITI). Signed in 2007, the Liberia EITI (LEITI) is an oversight mechanism aiming at strengthening accountability and transparency in the mining and forestry sectors by reconciling tax records from companies with payments received by the Ministry of Finance. The civil society is supposed to play an important role in designing, monitoring and evaluating the process through a Multi-Stakeholder Steering Group.
- **Cooperation with other organizations.** The day-to-day collaboration with the FDA includes joint coordination of field operations and planning of COCS deployment. LiberFor contributes to the enforcement of tax and forest regulations in partnership with the FDA and UNMIL. LiberFor has been working closely with the forest sector stakeholders to ensure an adequate level of consistency in the implementation of COCS. In partnership with the Ministry of Finance and the Central Bank of Liberia, tax codes have been amended to reflect the requirement of the Ten Core Regulations, specifically the ones to be paid by logging companies.

**Main challenges faced by SGS in the project implementation**

**The concession allocation process**

In 2006, the UN Panel of Experts declared: “it will take time to tender all the concessions and for loggers to achieve maximum production” (UNSC, 2006: 13). The prediction proved to be right as the allocation process of FMCs and TSCs started in February 2008 has been unfolding slowly. The official process includes 4 steps for approval with (1) the FDA, (2) the President, (3) the House of Representatives and finally (4) the Senate. As of May 2009, 6 TSCs have been allocated, out of which 3 have been signed by the FDA. 3 FMCs are in the processed of final approval by the Senate. The allocation process for the FMCs started 14 months ago and is not yet completed. The major challenge to implement the COCS is the slowness in the concession allocation process. It has delayed logging activities and revenue generation for both the government and the contractor. The underlying causes for slow concession allocation are outlined below.

**The implementation of the new Law**

The implementation of the NFMS is challenging for several reasons. Firstly, it has unveiled some inconsistencies with confusing or contradictory wording between the Law, the Regulations and the contracts. A lack of clarity or the vagueness of the terms used have punctually given room to misleading interpretations, preventing the establishment of a clear road map for implementation. Secondly, when the reform process was initiated after 14 years of conflict, forest management by logging companies and the associated law enforcement by the Government had been heavily relying on informal rules. This situation has left a legacy of unaccountability, tolerance for legal non-compliance, and fit-for purpose arrangements contradicting the new legal framework. Civil society members severely criticized the resulting errors and misinterpretations that led to tough confrontations among forest sector stakeholders and long delays in the implementation of the reform agenda and the concession allocation process.

Another important factor is the lack of capacity impacting all stakeholder groups of the Liberian forest sector. The poor technical level of both private and public entities involved in forest management associated to weak collaboration among government agencies have prevented the development of an adequate level of ownership in the management of the reform process. New concepts brought by the NFRL such as SFM, chain-of-custody and carbon credits, along with more stringent management standards, have exposed the lack of capacity within governmental administrations and logging companies. Strong support from the US Government and technical assistance from LiberFor have only partly contributed to bridge this gap.

Such an environment has discouraged internationally reputable and financially strong logging companies from engaging into the Liberia forest sector so far, worsening the capital gap faced by Liberian timber companies in need of financiers and international partners.

**Commercial forestry versus carbon credits**

Two years after the publication of the NFMS, the ongoing debate on land use planning is focusing on the generation of carbon credits in the context of the forthcoming “Reducing Emissions from Deforestation and Degradation” (REDD) conference in Copenhagen. Unlike in Democratic Republic of Congo where commercial logging and REDD are considered complementary strategies, in Liberia the approach led by some representatives of the civil society has been unusually subjective with a strong emphasis on the establishment of conservation concessions associated to the cancellation of logging concessions. As REDD is still at an embryonic stage with a limited visibility on the practical implementation and benefit sharing mechanisms, the perspective of substantial financial support suggested to the GoL in return of the enforcement of a national logging ban has brought some confusion regarding the orientation of the forest strategy in the coming years.
Land Tenure issue
The final agreements for several concessions allocated by the FDA to logging companies are currently on hold, due to ownership claims by representatives of the civil society on behalf of the communities. Although Liberian forests are mostly government-owned, the current legal framework partly recognizes private ownership and community rights to a lesser extent. The recent instauration of democratic principles in Liberia has materialized through a strong and popular movement in favor of better land ownership and revenue reparation, and led to the Community Rights Law which will be submitted shortly to the legislature for review. The law would give communities the ownership of forest resources within the community forests, and thus would reform the current government-community balance of power. The uncertainty associated with implementation of the bill and the associated debates have slowed down the concession allocation ratification process by FDA.

Contribution of the Chain of Custody System to the reform process
The establishment of a COCS in Liberia is instrumental in the strengthening and the continuation of the forest sector reform. In developing countries such as Liberia where the timber industry plays a leading economic role, the development of a forest verification system has the potential to raise transparency and accountability standards across the entire economic spectrum. If governance reform can be pursued on a sectoral basis, the forest sector can be the champion of broader governance reforms.

Enhancing Sustainable Forest Management practices
Commercial forestry is supervised by a set of technical documents developed with the US Forest Service support, such as the Code of Harvesting Practices and Guidelines for Forest Management Planning (FDA 2007a, 2007b). The COCS includes best-practice with an emphasis on compulsory pre-felling requirements including comprehensive forest management plans. The capacity building package provided by LiberFor develops the ability of logging companies to comply with the requested SFM standards. Besides, thanks to the 100% forest inventory, the LiberFor database is a unique source of information on the status of the Liberian forest. Hence, the GoL benefits from a set of forest data of an unmatched accuracy and scale in Africa. Such information is essential to support the FDA’s long-term forest management planning. Verifying the effective implementation of SFM standards ensures the long-term integrity of the natural resource and can substitute short-term negative effects of unregulated industries on livelihoods with long-term gains through company-community partnerships.

Tracking legal timber and tackle illegal logging
Paper-based verification systems alone do not provide a satisfactory level of transparency since they can be falsified, lost and degraded over time. Online information systems have proved to be safer, essential to share data in real time and carry out complex and systematic reconciliation tasks. Technology applied to the forest sector is getting increasingly cheaper and user-friendly yet many challenges remain. Firstly, timber supply chains can be complex and variable. Computer-based COCS must be highly adaptable to follow the constant evolution of timber flows and processing phases. COCS management teams must be on the lookout ensuring that any change in the circulation of legal timber is taken into account and reflected in the system design. The second challenge lies with the need for intensive capacity building already outlined. The IT equipment deployed being relatively complex, the level of training required should not be underestimated, nor the constant need for refreshers packages and updates for selected staff.

Forest inventories associated with physical inspections prevent illegal harvesting of trees under the minimum diameter but also illegal harvesting of trees outside the legal concession area. The Information System which runs reconciliations between data collected at different critical control points of the timber supply chain, spots falsified reports and inaccuracies. Oversight of royalty billing and payment monitoring also contributes to the identification of non-compliances with the fiscal regime, triggering disciplinary measures by the FDA and the Ministry of Finance.

Supporting compliance with regulations and laws
The COCS can strengthen the compliance with national legislations, international agreements and initiatives aiming at tackling illegal timber trade and improving transparency in natural resource management. In the framework of the LEITI we already mentioned, LiberFor will provide access on verified financial
information to the Liberian civil society. Furthermore, the recently reformed Lacey Act is now including timber in the list of commodities for which illegal trade is punishable by law. This law is a direct support to the development of Chain of Custody Systems meeting the needs of tighter national regulations through reliable verification mechanisms that demonstrate the origin of wood products. Finally, LiberFor is contributing to the development of a Voluntary Partnership Agreement (VPA) between the European Union and the Government of Liberia, in the context of the FLEGT initiative. The VPA currently negotiated requires the establishment of a Legality Assurance System (LAS) including a COCS. A pre-assessment of the Liberian COCS carried out by the European Forest Institute in March 2009 has concluded that it could be compliant with the requirements of the LAS to be established.

*Improving forest governance, transparency, accountability*

If managed sustainably, logging would produce a maximum USD 80 millions of annual revenues of which 15 millions should go to GoL in taxes or fees. In comparison, during Taylor’s regime, the Government could account for less than 15% of due taxes (Blundell 2005, UNSC 2006). By improving revenue collection and establishing clear channels for payment, the COCS enhances forest governance and transparency. Through the prism of the forest sector, the link between poverty, failed institutions and corruption can be broken by using forestry as an entry point for governance reforms (Brown, 2002). A COCS based on strong national ownership can play a pivotal role in introducing proven monitoring and legality standards within the national policy processes. The multi-agency implementation of LiberFor involving the FDA, the Ministry of Finance and the Central Bank is a benchmark for revenue collection transparency and efficiency in Liberia, which could be transferred to other sectors.

*Enhancing socio-economical development*

An innovative contribution of the COCS to the NFRL is the support to fair forest benefits sharing. People living in forest areas are among the poorest groups in Liberian society. The equitable distribution of forest taxes is problematic when the accountability of public revenue collection procedures is weak. Once operational, the information provided by the COCS is used as a basis for the payment of taxes by the logging companies to the local communities. As a pillar of the Liberia’s Poverty Reduction Strategy, extractives industries have a central role to play in generating government revenue through payment of taxes and royalties (GoL, 2007).

*Dealing with climate change*

Finally, as the international interest in REDD to address both poverty and climate issues in mounting, the contribution of sustainable commercial logging and the credibility of carbon credit transactions need to rely on effective third party verification. Assessing the compliance of REDD-related projects with relevant legislations, highlighting impacts and verifying the effective carbon sequestration is a task which could be established based on the existing verification system. A timber COCS could be used as a platform for the development of a complementary carbon credit verification system, building on the existing capacity of LiberFor. A better informed debate focusing on the synergies between REDD and the ongoing VPA process would certainly facilitate the implementation of carbon-related initiatives in Liberia.

**Conclusion**

We have shown that the Chain of Custody System developed by SGS and Helveta has already achieved concrete results on the ground and has the potential to contribute to reform the forest sector by bringing much needed transparency and accountability in the Liberia forest sector. However, we have also explained that surviving practices in the forest sector can undermine the full effectiveness of the system. From our practical experience in Liberia and other timber producing countries, we have learnt that capacity building and technological transfer, how innovative, flexible and adaptable they could be, remain quite powerless in front of forest management systems based on poor capacity and governance. First and foremost, a significant effort should be made to improve accountability of forest sector stakeholders. The support of International organizations will be critical to ensure that the progress made so far to develop and implement an innovative legal framework are sustained in the long term.

After 14 years of a bloody armed conflict, fuelled by revenues generated by illegal logging, the Liberia’s New Forestry Reform Law was enacted to prevent history from repeating itself. The objective is to ensure
that the logging industry not only contributes to the ongoing reconstruction process but also supports long-term peace and stability. Implementing a progressive natural resources management policy in a post-conflict environment does not go without setbacks and delays. Putting into practice the new forestry law will take time as the learning curve for the stakeholders is steep. To succeed, the new framework will have to engage with realities of sustainable forest management, contract holders’ accountability, and timber market trends.

The financial crisis is hitting hard African economies, and the forest sector is no exception. The demand for timber has sharply declined, but the question is not if, but when it will pick up again. Timber producing countries setting up systems to prove the legal origin of wood products will manage to weather the storm and emerge as timber market champions. Recovery for countries with no verification system may be much harder.

A key element of successful policy reforms is to link new concepts with initiatives making things work on the ground. By supporting the sustainable management of forest resources and contributing to the implementation of the Poverty Reduction Strategy, the Liberia Chain of Custody System has a unique potential to turn high-level governance reforms into tangible grassroots changes, addressing some of the major structural weaknesses that generate illegal logging.

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