



4.4 Chainsaw milling and poverty reduction in Democratic Republic of Congo

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Despite the post-conflict context and the pressure of human activities on forest resources, the annual deforestation rate of the Democratic Republic of Congo (DRC) is relatively low: 0.20% (de Wasseige 2009). However, several threats compromise the sustainable management of the forest, which is estimated at about 145 million hectares (ha).¹ They include shifting cultivation, firewood collection, poaching, artisanal exploitation of timber and gold and uncontrolled industrial operations. These activities involve local and indigenous people as well as migrants from neighbouring countries.

Artisanal exploitation

Artisanal exploitation involves adding value to wood or other forest products and services such as the use of the forest for tourism and recreational purposes, as a profession, either manually or using basic equipment, by people for their own benefit, alone or with help from family members or a team of workers.² Chainsaw milling (CSM) is one of the informal economic activities that represent 80% of the economy in the DRC (Debroux et al. 2007). Can it help reduce poverty?



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Chainsaw milling in DRC: the issues

CSM began in the 1940s, in the colonial period. Since 2000, after the breakdown of modern economic structures, the criminalization of the Congolese economy in the 1990s, the looting of infrastructure (1991 and 1993) and increased unemployment and recurrent conflicts, the impoverished rural population has increasingly turned to CSM in search of income (Debroux et al. 2007). There are three main issues related to CSM:

- access to forest resources;
- mechanisms to optimize benefits for local communities; and
- forest governance.

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Access to forest resources

The management approach of chainsaw millers in their concessions used to follow customary rights (Adebu and Abdala 2010; Pax Christi 2007). These customary rights are still in place; they function parallel to the current regulatory framework, which acknowledges customary authority in land management. This leads to a situation where land parcels subject to a property agreement, customary rights and a cutting licence can exist side by side. A concession can be obtained through the customary authorities or the local chief by giving cash (approximately US\$1.5 per ha)³ or in-kind contributions (such as steel plates, motorcycles and cattle). After a logger signs an agreement with the local leader he can begin his logging operations and apply for cutting licences from the technical environment service and the province.

According to Pax Christi (2007), the concessions for CSM in Eastern Province (69,512 ha) were larger than those from the industry in the area, estimated at 58,000 ha in 2007. Because of the possible lack of information on the part of the communities about the rights and obligations defined in the new forest law, the village authorities act as the rights holders without any support (Karsenty 2009).

Benefit-sharing mechanisms

Karsenty, Bertrand and Montagne (2006, 451) state clearly that, like poverty, the informal sector is the result of the large-scale exclusion of important social groups. Credits are not available and few local loggers have capital. This results in logging operations being pre-financed by foreign traders and timber being exported to neighbouring countries. CSM is the main supplier of local sawmills and other social actors — such as missionaries, politicians and public servants — providing products such as sawn timber, beams and boards for doors and windows. The price per m³ has declined over the years. In Kisangani, the price for one m³ is US\$250, compared to US\$350 per m³ before 1996; in the Bas-Congo, the price is US\$150, compared to US\$200 in 1995.

A variety of stakeholders are found in the sector: loggers, local carpenters, sawmill owners, mechanics, development partners (NGOs, UN organizations), transporters and traders, wholesalers and retailers. CSM provides jobs and services in both rural and urban areas and makes an important social and economic impact by reducing poverty among rural populations. But who benefits most? Neither the local and indigenous population hired as cheap labour nor the administration offices without fiscal recipes. But according to Lescuyer, Eba'a Atyi and Cerutti (2009) informal logging is very profitable in economic terms. It does not benefit the national economy, however; informal and formal fees profit only private individuals.

Chainsaw milling in DRC: the challenges

Demographic challenges

The population of the DRC was estimated to be 69 million in 2010, with very high densities along the borders with Uganda, Rwanda, Burundi (more than 100 inhabitants per km²) and Angola. With per capita GDP estimated in 2008 at US\$156.6 (UNDP 2009) this population pressure is exacerbated by the presence of refugees and uncontrolled armed elements that cause the loss of forest cover and will ultimately reverse any development.

Several studies⁴ report the negative impact of CSM activities, especially those related to subsistence agriculture. The mobilization of the active layers of the population in logging operations causes a decline in agricultural production. Thus, as noted by Pax Christi (2007), CSM activities cause people to be hungry, because all active hands are used in forestry.

Ecological challenges

The combined effect of unsustainable logging, the introduction of chainsaws (in the Mombasa area the number of chainsaws varies between 200 and 300) and the local perception that forest resources are infinite, has resulted in habitat degradation. Some people say "*la forêt est rasée*" (the forest is plundered). CSM, as a newly introduced technique and accessible to local communities, provides an opportunity to change from unsustainable logging techniques to modern operating standards respecting minimum logging diameters, CITES species and principles of sustainable management.

Governance challenges

The main governance challenges are the regularization of CSM and the traceability of wood.

Regularization

The forestry code, the legal basis of the sector, does not mention CSM specifically. The code notes CSM only in Articles 112 and 113, which deal with the exploitation of community forests and which require the forest manager to seek approval from the state. Observers of Congolese forest legislation are split on this issue:

- Some people think it is detrimental to communal forest managers, whose importance to the economy is not yet apparent; and
- Some people think the legislation is realistic since there is no control over this category of forest managers, and regulatory authorities, who are better aware of the problems in the sector, should be responsible for the appointment of appropriate organizations.

At the same time, Regulation No. 035/CAB/MIN/ECN-EF/006 of 5 October 2006, which follows the new Forest Code, contains provisions for the approval of forest exploitation and local cutting permits.

The current law recognizes only one category of chainsaw millers (pit-sawyers), while the trade chain also involves sawyers, retailers, firewood traders, mill owners and log trans-

porters.⁵ Article 23 of the regulation specifically states that a chainsaw miller must be a Congolese national using a handsaw or chainsaw. This demonstrates that the legislation is disconnected from the real situation.

A third difficulty results from Articles 8 and 24 of the regulation, the wording of which is certainly due to a misreading of Articles 112 and 113 in the Forestry Code; they suggest that CSM is allowed only in community forests.

These controversies further weaken the CSM sector by pushing its participants into informal or even illegal activities. That could be expected, since the community forestry law has not yet been made operational.⁶ This compromises the existence of small-scale forestry as a separate entity not only from industrial forestry, but also and especially from the local community.

Traceability

Another challenge relates to the traceability of timber from CSM and the persons involved in the supply chain.⁷ Weak borders, corrupt public officials and customs, and the existence of a trans-national network of illegal trade, hamper the control over timber trafficking and the actors involved. How can bona fide operators be distinguished from the small numbers of illegals who work under the protection of military and political authorities? Given the lack of information, it is difficult to detect or sanction illegal activities. The lack of objective and reliable statistics contributes to the practice of fraud that extends to licensing documents and tax payments on harvested volumes and exported volumes. CSM is subject to the payment of official and unofficial fees for area, province, replanting, loading, security service, migration service, police and military authorities.

A striking example of lack of appropriate statistics is the truck loaded with wood that broke the Lubiriya River Bridge with a load of 60 m³, while the amount reported was 10 m³.

According to statistics from the Eastern province, 192,842 m³ of timber was produced in 2006 and 2007 by 12 industrial loggers while 28,731.5 m³ was produced by 44 groups of chainsaw millers. These figures are at odds with estimates from other studies. IKV Pax Christi (2007) reports that the public service of Mombasa reported a timber harvest of 13,774.70 m³, while field data showed that 56,119.25 m³ of timber was harvested.

Poor governance has been profound in CSM. Corruption and conflicts are the reason why local communities still live on less than one dollar a day.

Possible solutions: participatory structuring of the sector

The integration of the informal sector into the overall economy and government standards requires that the authorities put in place a policy and support programme that addresses the local economy. The government must in the long term formalize CSM by giving it a specific legal framework and clarifying the status of its participants. A set of



incentives (granting micro-credit and securing legal rights) needs to be put in place by the public authorities. It is unclear how to address these issues — and the problems of the participatory zoning process and the creation of community forests — with the active involvement of civil society.

So far, the authorities have been interested in taxation of the industry instead of addressing a broad perspective of land-use planning and the rights of indigenous and local communities. The transition from informal to formal also means a change of approach in fighting illegal practices and networks, which are established and well consolidated. Development and research partners (IUCN, CIFOR, FORAF and WCS) need to support governments in this struggle.

Conclusions

It is clear that CSM brings wealth to local chainsaw bosses, but not to a majority of the population or the state economy. Solutions are urgently needed.

If the formalization of CSM is the ultimate step to reconciling poverty reduction and environmental protection, it involves intermediate steps that require the strengthening of state control, the harmonizing of transboundary trade regulations and the mobilization of funds. The combination of domestic and external pressure is an important link in promoting legality. The establishment of a national regulatory framework, discussed and validated by all stakeholders, will provide opportunities for organizational improvements in the sector.

Endnotes

1. See PFBC (*Partenariat pour les Forêts du Bassin du Congo*). 2006. *Les Forêts du Bassin du Congo, Etat des forêts*.
2. See Vundu dia Massamba, *Présentation sur la réglementation de l'exploitation artisanale des bois en RDC*, in *Rapport de la journée de concertation sur la réglementation de l'exploitation artisanale des bois en République Démocratique du Congo*, IUCN, Kinshasa, February 29, 2010.
3. In the Mombasa area, cash payments are higher, ranging between US\$100 for 10 ha and US\$600 for 50 ha.
4. See de Wasseige et al. 2006; presentations at the International Conference on the management of the DRC forests (Brussels, 2007); Studies on the REDD+ potential of the DRC by the Ministry of Environment, Nature Conservation and Tourism, and studies by IKV Pax Christi (2007) and Adebun and Abdala (2010).
5. This is from the communication of the *Association Congolaise des Exploitants Forestiers Artisanaux* (ACEF) to its members.
6. The regulations for community forestry are still being developed.
7. In DRC, timber is exported to Angola via Uganda and Kenya; to Uganda via Kasindi; to Sudan via Aru; and to Rwanda and Burundi via Butembo-Goma.

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