

Chainsaws, milling and regulation

Chainsaws benefit forestry practice and forest-dependent people but are also implicated in illegal tree harvesting and forest clearance, and who benefits and who loses from legal and illegal chainsaw use continues to be debated. There are increasing calls to regulate the use of chainsaws, and attempts in some countries informing policies and laws on chainsaw use to improve livelihoods without harming the environment. This policy brief is aimed at those involved in making, implementing and enforcing policy in the forestry and wood processing sectors, and also companies involved in manufacturing and selling chainsaws and chainsaw mills.

The problem with chainsaws

Chainsaws are highly portable, relatively cheap to hire or buy, very efficient, and the same tool used by one man to fell, crosscut and mill a large tree in under a day. However, there are increasing concerns about illegal logging and deforestation in tropical forests where there are still high volumes of valuable timber. Inadequate laws or enforcement benefit illicit cutting and over-exploitation, especially in remote locations. Whereas it is true that chainsaws are implicated in most illegally harvested timber, it is clearly not the prime cause, merely a tool in the operation.

In contrast to the negative environmental effects of illegal chainsaw logging and milling, such crime often allows more money to feed back to poorer people in forest-dependent communities as compared to legal harvesting, usually run by large overseas companies.



'Freehand' chainsaw milling, the usual, dangerous way.

Attempts to restrict their use

Restrictions on the ownership and/or use of chainsaws have been tried, but with mixed effects. In Ghana, 80% of the timber in local markets is milled freehand even though the practice is illegal. In Uganda, it is also illegal to mill timber freehand, as such timber is easy to identify thanks to the 'trademark' chainsaw marks, enforcement is relatively simple and many truck loads of timber and chainsaws are apparently confiscated. However, many do get through. Clearly regulating or banning the use of chainsaws in the context of inadequate forest laws or enforcement is unlikely to succeed and may just change the tools used.

There is no single right answer to these problems, each situation being quite different, though there is some consensus on issues to consider.

The role for regulation in chainsaw ownership and use

- decide best policies and who polices implementation
- implement existing and improved regulation
- license chainsaws and milling equipment

The case for certification of production and trade

- improve transparency in the chain of custody
- establish grower, miller and trader associations
- build consumer and commercial confidence

The time for training in chainsaw use and milling

- develop national training programmes
- invite manufacturers and dealers to be involved
- involve timber processors and manufacturers

Chainsaws now seen in a new light

Characteristics that make chainsaws suitable for illicit activities can also aid forest conservation. Certainly, processing trees where they fall has environmental benefits over whole log extraction, and promoting the use of low capital cost processing equipment allows opportunities for more of the local community to engage in forest operations. In addition, they are being increasingly seen as suitable for milling scattered trees on farms, drylands and in towns, thus reducing the pressure on forests as the main suppliers of timber.



The tell-tale 'trademark' of freehand chainsaw milled timber. Khaya spp. in Kenya, illegally harvested.

Chainsaw milling is economically viable in certain situations, increasing revenues for the very poor. However, it is likely to have negative impacts especially on the environment if allowed to be used without any control. Existing regulations and their enforcement are clearly inadequate so alternatives are required, involving governments, local people and/ businesses commercially involved in timber, chainsaws and milling attachments.

The rise and role of chainsaw milling attachments

With freehand chainsaw milling there is a high risk of injury with generally poor timber quality and recovery. However, there exists a wide range of frames or guides that attach to a chainsaw making it safer, accurate and more efficient, but these are rarely used in the tropics. A global review and studies in Kenya, Uganda and DR Congo confirmed the potential for such simple technology in a range of situations both inside and outside forests. A chainsaw milling manual and posters have also been produced that detail the different mill types and techniques (see footnote).



Using a chainsaw frame mill in DR Congo.

Promoting the use of such chainsaw mills and adequate training are seen as ways to persuade freehand operators to give up their currently dangerous, inefficient and largely illegal activities. However such changes are unlikely to happen quickly enough on their own without the efforts and insights of officials within forest departments to see the need for change, to draft new policies and regulations, and to push them through the legal system. Many other organisations and companies will agree with these aims, and eliciting their support is likely to assist the process.

Suggested changes to policy and regulation to improve use of chainsaws in timber processing

National forest departments to take responsibility and lead the way in making necessary changes to policy, law, regulation, enforcement and penalties.

Clarify any ambiguities in existing laws pertaining to chainsaw ownership and use.

Reduce import taxes or tariffs on chainsaw milling attachments that all improve safety, efficiency and recovery, to encourage their greater availability.

Collect details of all importers and dealers of chainsaws, milling equipment, spares and accessories, to be included in a special national register.

Insist dealers provide records on numbers imported and sold, including buyers' names and addresses.

License chainsaws and mills nationally, owners to state the purpose and where used, and chainsaw operators requiring a permit, both renewable annually.

Institute a national policy on developing and promoting training courses on chainsaw safety, use, maintenance and milling, also timber drying.

Eventually, make the issuing of chainsaw licenses and permits dependent on whether a training course has been attended.

Eventually, make the milling or transport of freehand chainsaw milled timber illegal, irrespective of origin (country or forest type), readily enforced due to the presence of the tell-tale markings.



Chainsaw milling with an Alaskan frame mill in Kenya.

For further information contact Nick Pasiecznik (npasiecznik@wanadoo.fr), or see 'Turning Trees to Timber: A Chainsaw Milling Manual' and other project outputs (<http://chainsaw.gwork.org/>, www.hdra.org.uk, or write to the International Research Department, HDRA, Coventry CV8 3LG, UK).

This publication is an output from a research project funded by the United Kingdom Department for International Development (DFID) for the benefit of developing countries. The views expressed are not necessarily those of DFID. R8510 Forestry Research Programme.

©HDRA 2006. Pasiecznik NM, Samuel JH, Fehr C. Photo credits : Pasiecznik NM, Fehr C