

Use the whole log

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Too much timber is left in the forest or at log landings. Forest operations want to send out only perfect material. But how much volume is left in the forest to get such logs? Investigations done in 1999 have shown that between felling and loading on a truck some 35-40% of the log is lost.

Do not apply shortening in the forest. As a rule the whole stem should be brought out of the forest, in practice buttresses (sawn off) should still be visible on bottom side and the double heart (from fork or side branches) should be visible on the top side.



This improves the efficient use of timber for the following reasons:

- It reduces the risk of tree parts left in the forest;
- Total recovery rate from the tree (valuable wood used) tends to be higher as less wood is wasted.

Shortening is preferably done closest to the end user. If for logistical or cost reasons stems are to be shortened at the log landing, ensure that the employee applying the shortening is trained and does understand what the sawmill requirements are. He should regular receive up to date orders from the sawmill on specifications.

- Lengths as long as possible for optimal use of transport trucks;
- Start measuring at thickest point (butt), this is the side where most timber would be lost; apply shortening at smallest point;
- Always check stem quality before shortening and cut deficiencies out;
- Cut straight, perpendicular to stem length, and avoid cracking.

“Keep as much as possible wood on the log”

A forest manager operating in the Congo Basin explained: “Our general attitude is focussed on keeping as much as possible wood on the log, and taking as far as possible the full lengths out of the forest and to the sawmill.”

They extract full length trees to the log landing as it induces less extraction costs and is logistically more practical – no parts are left in the forest. Cross-cutting is applied on the log landing (2 or 3 parts per tree), and they do take into account the specifications of the sawmill. Which works very well. By means of evaluation and communication the personnel in the field now clearly understands and applies what is requested by the sawmill.

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24% versus 8% loss

The researchers Medjibe and Putz conducted a study in Gabon* where they assessed the wood waste due to improper felling. With wood waste they assessed for instance high stumps and broken logs. They furthermore calculated inefficiencies in volume recovery due to poor bucking and lost and abandoned logs. In their study they compared two commercial forest enterprises, one applying conventional logging, the other applying reduced impact logging (RIL) techniques. The results showed that merchantable wood waste represented 24% of the harvestable volume for the company applying Conventional Logging and only 8% for the company applying RIL techniques.



This picture shows a loss of at least 15 cm of valuable stem, due to improper cross-cutting.

* Medjibe, V.P., F.E. Putz, 2012. *Cost comparisons of reduced-impact and conventional logging in the tropics*. In: *Journal of Forest Economics* (2012) 18: 242-256.