

Recovery rates of most tropical sawmills are known to be low. Small improvements and increases in recovery rates can result in higher revenues. If the recovery rate increases from 30% to 31%, this seems to be small, but the total saleable volume increases with 3.3%. Increasing the recovery rate is a complex issue, but there are several ways for improvement that might easily be overlooked:

- Use the different requirements for local markets and export. In some cases local markets have more flexible demands for specifications. Depending on the price, sawing a larger volume for local sales might be more profitable. Do not automatically follow export orders first;
- Optimize product mix and capacities by means of a (computer) management system to continuously optimize:
 - the product mix of the saw mill;
 - the delivered species and diameters;
 - capacity of man power;
 - capacity of storage and machinery.
- Apply the sawing of multiple orders at the same time, search for smart combinations of products. This will allow to saw different specifications from one log (such as a combination of small and large dimensions);
- Develop markets for small dimensional wood: do not only sell what clients ask for, but actively develop a demand for short and small dimensions;
- Make contracts for a variety of product specifications that allows for smart combinations of dimensions and products.



An output increase of 20%

An African based company continuously monitors the use of logs by means of registration of the remaining volumes per species. This provides them very up to date overviews of recovery rates and allows for timely adjustments if low recovery rates are found. They continually focus on producing as little as possible waste from quality timber. Their best achievement was to combine product specifications of various clients. They seek for smart combinations of small and large dimensions in sawing to use as much as possible wood from one log. Furthermore, they successfully negotiated with clients to allow a certain percentage of total volume to be a little smaller than the requested specifications. In the past, their recovery rate was 30%. Through the introduction of smart combinations of dimensions, they could increase the recovery rate to 36%, which is an output increase of 20% per log.

Small timber for house frames

Bruynzeel Suriname in the past developed house building packages that mostly consisted of frames that were filled with short lengths of about 1.2 m. This concept allowed the company to use large amounts of smaller sized timber, that would otherwise have been wasted.



Money for 'waste'

A company operating in South East Asia found a niche market for FSC certified residual log parts such as heavy branches, cut off logs, which provides an additional average annual income of roughly 28,000 US\$ per year. Although the contribution to total revenues was relatively small (about 1%), they could increase the timber volume selling with approximately 5-10 %, which dramatically reduced the volume of wood waste at log landings.

Matching demand and sawmill recovery rates

Sales people tend to go for the best prices and follow the needs and demands of clients, but that's not always in favour of saw recovery rates. Therefore a company based in the Congo Basin searches for agreements that fit the possibilities of the sawmill. In practice this sometimes means that they do not accept the highest prices, but head for the optimum saw recovery rate, which in the end results in higher income. That requires a very good communication between the production department of the sawmill and the sales department. The manager of the sawmill is in charge of a perfect communication between these two departments.

Sawing multiple orders

Sawing standard dimensions causes low recovery in the sawmill. Recovery can dramatically increase when sawing multiple orders for varying dimensions at the same time. To do this, orders for as many different sizes as possible need to be secured. Sawing multiple orders is more complicated and needs extra planning and training of the operators. The operators need to understand how to fit in dimensions in the logs available.

To give the operators insight in the choices of dimensions and allowing them to combine the various dimensions / contracts , a cutting order will be discussed and distributed and at each machine a blackboard with the dimensions of all contracts of this species will be placed in sight of the operator.

The sawmill manager will constantly have to supervise this discipline with the workers. A bonus system, combining production volume AND yield, does miracles. To make all these techniques comprehensible, the various operators have to be trained in the mill by an experienced instructor.

