

**Sao Hill Industry's New
Sawmill, In-bound Logistics and Dry Kilns/Boiler
- Probably Africa's (exc. RSA) largest sawmill
06 July 2012**



Vice President of Tanzania, His Excellency Mohamed Gharib Bilal, inaugurating the SHI Sawmill building.

Sao Hill Industry's (SHI), a subsidiary of Green Resources AS, started up a new HewSaw sawmill on the June 2012. This is the result of a four year, USD 10 million industrial investment project at SHI. More than three quarters of the 30 year old sawmill have been renewed, increasing sawing, treatment and kiln drying capacity, and as a result, the production capacity has tripled.

The state of the art mill is budgeted to produce 60,000 m³ timber in 2014, out of a total forecast production of 84,000 m³ at SHI. The mill is believed to be Africa's largest sawmill outside of South Africa. It has a production capacity of 3x the budgeted volume with minor de-bottlenecking in the timber sorting area and 3 shift operations. Production is set to increase over time, providing significant upside potential for the company. The new HewSaw will produce the best quality timber in East Africa and is well equipped to satisfy customer demand in the fast growing regional market, as well as starting selective, high value overseas export.

Importantly, the utilization of the wood resources will improve through better yield. The new sawmill will enable SHI to saw smaller dimension timber, down to 10cm diameter compared to previous 14cm, and provide a sawmill recovery rate of 45% for a 16cm log, compared to previous 35%. The new sawmill is particularly well suited for sawing thinning from Green Resources' own growing forest. The mill is fitted with oversized motors such that it can saw hardwood timber, improving the utilisation of the eucalyptus log harvest and provide industrial quality supplies of hardwood timber for joinery products.

The new sawmill, kiln and value added investments will produce high quality raw material for the Tanzanian building and furniture industry, enabling these industries to compete effectively in the regional market and help replace imported products. The Tanzanian furniture industry will for the first time have access to kiln dried world class softwood timber, and 1000s of new 'downstream' jobs are likely to be created.



Eleven 6x8 trucks, ex UK army with low mileage (5-20,000 km), particularly well suited for forest operations, and 60%+ higher carrying capacity than the existing system. Despite of this, fuel consumption is only marginally higher than the existing Scania semi-trailers, at 1.7 km per litre, compared to 2.0 km per litre for the Scania's. Six specialised, heavy duty, trailers have been built which enables six trucks to transport logs for the budgeted sawn timber production. The trucks have a multilift system, which allows multi-function use, for example use as fire, fuel, seedling or workshop trucks.



The log intake to the new log sorting line at the top, showing the control room in the middle and the scanner to the left. A crane for offloading logs from the incoming trucks will be mounted to the very right within a week, significantly reducing the cost of this operation.



The 140m long, 30 pocket log sorting line where the scanner measures each log and the logs are sorted into separate bins depending on size before being transported to the sawmill. The log sorting line is supplying both the existing and the new sawmill, and will be supplying the new planned large log sawline.



The sawmill building from the back, with the log intake to the left and timber sorting line to the right.



The front of the 100 m long sawmill building. The wood chip and sawdust outfeeds are shown to the left.



The new 100m long HewSaw sawline, with a potential three shift capacity of 180,000 m3 sawn timber per year. The mill provides high recovery rate for 9-26 cm diameter logs. The new high tech scanner is seen in front of the control room. The guard of the debarking machine is seen to the very right where bark is separated.



Log infeed with bark outfeed from the debarker to the left. The cleanly separated bark will be used for energy and for soil substrate/ soil compost.



The control room from where the entire sawline is operated.



The main sawing unit of the HewSaw where the log is chipped into squares and the residual chips are directly made into pulp/ panel board chips, while at the same time the central cant is sawn into boards. The saw has two separate sawing units with a board separator between them. The two saw configuration increases the recovery rate and output compared to a conventional single saw HewSaw. The motors are over-sized such that hardwood (eucalyptus) can be sawn along with the softwood.



The second sawing unit where further re-sawing can take place, increasing the yield and making specialized timber products.



A new high tech saw maintenance section has been established, where it is possible to sharpen carbon-tip saw blades, a first for Tanzania.



The timber sorting deck and cross saws at the end of the sawmill. This part of the sawmill will also serve the planned new large log sawline at SHI.



Modern sawing technology separates bark, chips and sawdust from the sawn timber. This allows 100% utilization of the logs. There is no waste as clean bark is suitable in composting or energy production. Clean chips are first class raw material for paper or panel board production and clean sawdust is for briquette and pellet production. Wood chips are to the left and sawdust to the right. Bark is seen below.





New dry kilns (3x150m³ and 2x60m³ chambers) and the new 2.1MW boiler. The new kilns will provide high quality dried timber for glue-laminated sheets, doors, furniture and other value added production. The lighter dried timber is also reducing the transport costs to the market. The boiler has sufficient capacity to supply hot water for a doubling of the kiln capacity.



... and off to Coca Cola with pallets



... and off to customers with timber

Interest and enthusiasm surrounding the project has been huge:



Local school children celebrate at the inauguration.



Tanzania's Deputy Energy Minister, Hon. Adam Malima, visits SHI, photographed with Nick Moore, Sangito Sumari and Roselyne Mariki from Green Resources.



Norwegian Minister of International Development, Heikki Holmas (left) and Finish Minister, Heidi Anneli Hautala (right) are both given tours of SHI by Nick Moore, the General Manager of SHI.