

## **Test of Timber Transport Equipment of Bogor Forest Products Research and Development Center**



**Gunung Walat, Sukabumi** – Gunung Walat University Forest (GWUF) became the test site for Generation 3 Expo, a timber transport equipment made by the Bogor Forest Products Research and Development Center, on Thursday, September 30, 2010, until Thursday, October 7, 2010.

Generation 3 Expo is the developed version of the previous generation of timber transporters with various improvements in the pulley and hook systems so that it is expected to create an effective, flexible, easy, and safe timber conveyor. The trial of this equipment involved 4 staff from Harvesting Engineering Division of Indonesian Forestry Research and Development Center led by Coordinator of Tools and Substitute Engineering for Timber Processing, Wesman Endom, M.Sc.



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## GUNUNG WALAT UNIVERSITY FOREST

The purpose of the timber conveyor is to ease the timber transport on slopes or ravines to be lifted to the timber shelters that are higher than the original place of timber (the contour in the forest is not completely flat). Timber transportation technique using this equipment is different from existing timber transport equipment. Previously the timber was lifted or pulled from the bottom (the place of origin of the timber) up to the top (shelter) and it required a large engine energy. At the Generation 3 Expo technique, the wood is lifted upright so that its height exceeds the shelter, then the wood is just launched.

The land contour in GWUF is uneven, making it the right place and ideal for conducting research and test. In addition, research objects such as wood and trees (as a medium to link the rope) are available to facilitate research trials.

This equipment testing activity was a part of previous studies that had been conducted since 2000. The weaknesses of equipment in the first generations, such as small engine power, are continuously innovated to obtain more sophisticated equipment. According to Wesman, the test of Generation 3 Expo would take 3 years. This trial at Gunung Walat was the first time that had conducted and there were still many trials needed to test the feasibility of this timber conveyor. At the moment, the Generation 3 Expo had only produced 1 unit in 2010 because it still needed further improvements to produce timber transporting equipment that nearly perfect.

“The interim result in the research for a week was the Generation 3 Expo is capable to transport 2 tons of timber, with a height of 14 meters, and the length of the barrier of 75 meters” said Wesman, M.Sc. The benefit of this research was that this tool is expected to be the most effective timber transporter so that it can be used throughout the Indonesian forestry including GWUF.

In the future, this equipment can be utilized not only as timber conveyors, but also as transport of garbage in the river, sludge, and so on because of the same principle function, which is moving an object to another place through a pulley system with engine power.

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