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Timber-Cable

FOREST DEPT PROMOTES MINIMAL-DAMAGE LOG HARVESTING

By: Kanul Gindol

SANDAKAN, Aug 15 (Bernama) -- The Deramakot Forest Reserve deep in the Sabah jungle, which tomorrow plays host to Prime Minister Datuk Seri Dr Mahathir Mohamad, is out to "revolutionise" harvesting of tropical timber, which usually causes damage to soil, streams and other trees.

This is done through the use of a skyline cable-yarding system which involves a complete retrieval of felled logs from the ground by winching, which ensures a very minimal disturbance to the environment and forest resources.

According to the Sandakan chief forestry officer Sam Mannan, the department had since 1992 successfully introduced the system which it hoped could replace the environmentally-unfriendly system of log harvesting in this timber-rich state.

"After being winched from the ground which involves little disturbance to the soil and other vegetations, the logs are transported 'air-borne', using cable-ways and ropes," he said.

The principles used here are similar to the gondolas and cable cars system used for transporting people to mountain resorts and ski fields.

He said this German harvesting system is employed in areas with relatively steep terrain of 15 degree to 25 degree slopes but it can be adopted into an all-terrain system as had been used in the Deramakot Forest Reserve.

"This yarding system uses Austrian machines and was initially introduced here as a demonstration of low-impact harvesting technique, but it has since moved up to the operational scale," Sam told Bernama.

He said a two-winch system, powered by diesel engines with a 3.5-tonne capacity crane/carriage, or three to five cubic metres in terms of log volume, provides the basic combination.

He said the Deramakot Forest Reserve, which was first gazetted as a forest reserve in 1954, also employs the stringent Reduced Impact Logging (RIL) whereby preparation of a harvesting plan is a pre-requisite -- where full details of the resources like timber, residual trees, water and hills, are mapped and made into a plan before harvesting commences.

"The skyline harvesting system gives the best productivity when it is used in combination with crawler tractors where the tractors haul the logs to the cable paths, followed by the skyline system retrieving and transporting them by air," he said.

This technique results in minimal soil disturbance with as much as 97 percent of the soil remain intact.

He said with RIL, damage to residual trees was extremely minimal as very little road network needs to be developed and even then this was only for the main hauling road.

What was more important, he said, was that local workers could be trained easily in setting up, dismantling, operating and maintaining the system within a relatively short period of two to three months only.

He said the system used in Deramakot, and now also practised by the Sabah Foundation in its huge concession areas, was continuously being refined to allow for the carrying of heavier loads.

For this goal, a five-tonne carrying capacity was now being developed, he said.

"The initial investment cost for this system appears to be within the capacity of local loggers to absorb, and that this skyline system

demonstrates that tropical forests can be harvested with minimal impact to the environment," he said.

According to Sam, the result of RIL harvesting showed that;

* 50 per cent less damage to the residual tree crop as compared to conventional logging;

* soil disturbance, damage to waterways and erosion were very much reduced; and

* Malaysians can be trained in RIL techniques as they already possess the basic skills.

Sam said the concepts and ideas applied in Deramakot would form the basis of multiplication into Sabah's other Class 2 forest reserves or commercial forest reserves totalling approximately 2.8 million hectares.

" The state government has targeted that all such forests in Sabah will be managed along similar lines as in Deramakot by the year 2004," he said.

If this materialised, the present generation would have ensured that the depleting timber resources would still be available for the next hundred years, he said.

The Deramakot Forest Reserve, along the mid-Kinabatangan basin, also serves as a catchment area with its streams and rivers feeding the Kinabatangan River.

This is apart from being home to many major mammalian species of Borneo like the tembadau (jungle buffaloes), elephants and deer and also birds like the egret and various hornbills species.-- BERNAMA

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