

Forest conservation goes high-tech

Experts say satellite-based remote sensing technology has proven to help slow the rate of deforestation in the Harapan rainforest in Jambi province.

“Deforestation in Harapan seemed to have slowed down [in the last quarter of 2012]. This was confirmed by local observers,” Netherlands-based Wageningen University forest inventory expert Dirk H. Hoekman said last week during the workshop on Reducing Emissions from Deforestation and Degradation — Fast Logging Assessment and Monitoring Environment (REDD-FLAME) held at the International Convention Center of the Bogor Agricultural University (IPB) in Bogor.

“It may be possible that this actually is a result of the [advanced technology].”

The workshop marked the end of the REDD-FLAME program, which used the advanced technology in Mawas, Central Kalimantan. The project was part of a European Commission-funded research effort known by the acronym FP7-SPACE. Other workshops will also be held in Mozambique in February and then in Brazil in March.

Yusuf Cahyadin of the management of the Harapan rainforest, which covers 101,000 hectares, said measures to prevent deforestation and illegal logging became more effective two years ago, when the forest management began cooperation with SarVision BV, a spin-off of Wageningen University that provides latest maps and information on land and forest cover.

“It is a fact that the technology is very accurate and needed. We could immediately locate hot spots of illegal logging once we received indications of changes in the forest,” he said, adding the error tolerance stood at around 5 percent.

Workshop participants agreed that the Indonesian government needed to use the advanced technology in its fight against deforestation.

Ari Wibowo, a senior researcher at the Forestry Ministry’s Research and Development Agency, said that although he agreed the step was effective, Indonesia could not afford to use the technology to cover its vast forests.

Forestry Minister Zulkifli Hasan said last year that Indonesia’s forests covered around 45 million hectares (450,000 square kilometers), a sharp decrease from the 130 million hectares the ministry recorded in 2010.

Eric van Valkengoed, the chief executive of the workshop in Indonesia, said the monitoring with the system could be done for as little as US\$1 per kilometer, not \$50,000 per kilometer as earlier reported, throughout all of Indonesia with high resolution satellites (20 meters). “And [the price] can go up to \$100 per kilometer to monitor a small area using very high resolution [3 meter] satellites, where deforestation can be detected very fast [every 11 days] and almost up to the individual tree level.”