

## **New monitoring tool consigns deforestation to the past**

Tesso Nilo is purple. More than half of this 167,000 hectare forest in Riau province, Sumatra, has a reddish hue on the digital map. Purple denotes forest loss. Blue indicates forest gain. The satellite-aided image delivered in near-real time comes courtesy of the Global Forest Watch (GFW) website of the Washington-based World Resources Institute (WRI), which was launched on Feb. 20. This free service, accessible to anyone with an Internet connection, is a groundbreaking tool to track deforestation and forest degradation worldwide. Armed with this information, authorities can act quickly.

GFW, however, is unable to distinguish tree-based plantations, like oil palm plantations, from natural forests. Nevertheless, it says it is now working on a "plantation forest map" for tropical regions to determine the location of plantations. Indonesia and Malaysia have large areas of oil palm estates. "Global Forest Watch is a near-real time monitoring platform that will fundamentally change the way people and businesses manage forests. From now on, the bad guys cannot hide and the good guys will be recognized for their stewardship," said Andrew Steer, WRI president and a former World Bank country director in Indonesia, in a statement.

High-resolution images that show forest cover and loss are the outcome of Landsat images run through computer models using Google Earth technology. "We are using it as a preliminary reference. For BP REDD+ activities, we need more comprehensive and detailed tools that we are continuing to develop," said William Sabandar, team leader for operations at Indonesia's new REDD+ Managing Agency. Now the focus was on monitoring deforestation; later, work would extend to facilitating numerous programs to reduce deforestation, he continued.

The agency, established in August 2013, has the formidable task of reducing carbon emissions from deforestation and the degradation of forests. It has the additional duty to ensure continuing efforts in forest conservation, carbon stock building and enhancing the livelihoods of forest communities. Forest professionals on the ground do not deny the tangible benefits the forest-monitoring platform offers. A forestry studies lecturer at the University of Bengkulu in Bengkulu province, Sumatra, says he wants to research the impact of global warming on land loss along Bengkulu's 525 kilometer coastline, due to the rise in sea level, by comparing 1970s' mapping with mapping today. "If the GFW can provide that [mapping data], that would be capital," said Gunggung Senoaji.

The question is can GFW provide data time series information, comparing conditions in 1990 and in 2014, for instance, that show the size of areas destroyed by fire and areas reforested? Could it also show the division by category of forests in the Intergovernmental Panel on Climate Change (IPCC) and national versions, queried Gunggung, who is also the team leader in greenhouse gas emissions reduction acceleration in the provincial government's Environment Agency (BLH). A visit to the GFW website, though, shows that the platform provides maps of regions that present forest loss and gain using a 12-year time range slider between 2000 and 2012 at the bottom of the map.

Meanwhile, another researcher in Riau province believes the GFW could be useful for the local environment agency, the forestry service, the plantations service as well as NGOs and universities. With the forest and peatland fires raging in Riau recently, information provided by the platform would be important, said Haris Gunawan, executive director of the University of Riau's Center for Tropical Peat Swamp Restoration and Conservation (CTPRC).

To deal with the current haze, the University of Riau established a task force for a Total Solution on the Haze Hazard (STBA) on March 4. The university's rector, Ashaluddin Jalil, is chair and Haris is secretary. "The CTPRC could be helped immensely in mapping conditions of forest damage as observed from forest canopy coverage," said Haris. Short courses should be available for the optimal use of the GFW tool, he suggested.

Globalforestwatch.org does have a "how to" tutorial. However, the REDD+ Management Agency could perhaps conduct such short courses in the 11 priority provinces where it has activities. These provinces from Aceh in the west to Papua in the east are the priority since they have large tracts of forest and peatland. The REDD+ agency could demonstrate to local services, NGOs and researchers how best to use the platform, for example, for MRV applications in monitoring, reporting and verifying forest loss and gain.

The bottom line is that when Indonesia is able to optimize the use of the GFW platform, that should be the point that marks the beginning of the end of deforestation and assigns it to the past.

***Warief Djajanto Basorie, The writer teaches at the Dr. Soetomo Press Institute, Jakarta.***