

# Satellite Imagery Aiding Sustainable Management of Indonesia's Forests

## ONF International

Project



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In the 1960s, Indonesia's dense forests covered an area of more than 110 million hectares. Four decades later, they have shrunk to no more than 66 million hectares - 37% of its territory. Because forests capture carbon, they are a major asset in efforts to mitigate climate change. Consequently, Indonesia is a prime candidate for deploying REDD initiatives (Reducing Emissions from Deforestation and Degradation): nations impacted by deforestation receive carbon credits calculated on the basis of emission reductions achieved by protecting and conserving forest habitats.

Teams at Green Synergie and ONF International are working with satellite imagery to gauge levels of deforestation and map zones for reforestation in the northern province of Sulawesi Utara.

### Planet Action Support

The goal of the project supported by Planet Action is a lofty one: to preserve forest areas and the environmental and social services they provide. The first step is to evaluate the region's potential human and natural resources, to help local authorities to manage forest resources sustainably. REDD initiatives can only be made to work with the requisite field data and through analysing satellite imagery. A strong commitment from local communities will be required to fulfil the project's goal.

### Project Stakeholders

The project was launched in 2008 by French NGO Green Synergie. Stakeholder actions are being coordinated by ONF International, an organization with expertise in sustainable forest stewardship. Dialogue between indigenous populations, institutions and forestry stakeholders is central to the project's implementation.





## Projects Challenges

The northern province of Sulawesi Utara is a proving ground for future REDD mechanisms. Until now, carbon stocks in the biomass of tropical forests have always been gauged using field survey measurements alone, which are often imprecise. For this reason, a second goal of the project is to assess the potential for sustainable exploitation of forest resources using remote-sensing and GIS technologies.



## Use of Satellite Imagery

Planet Action has supplied SPOT satellite imagery for workshops conducted by institutions from the forestry sector. This serves as a tool to gauge the quantity and quality of forest resources as a first step towards evaluating reductions in carbon emissions to be traded on the international market.



## Methods and Actions

Teams in the field are focusing on pragmatic actions, leaving local authorities in charge of formulating proposals. Progress meetings are held to track results; local universities and NGOs are working together on field work, providing vital scientific expertise for assessing carbon stocks.

Communication of field work results through the well-knit project community is advancing knowledge about REDD initiatives as an operational tool.

Two projects are being set up in the light of initial diagnosis to identify action areas: one to define forest-friendly local farming practices and the other to ensure sustainable stewardship of the Poigar forests with a view to implementing REDD mechanisms in northern Sulawesi (*KPH Poigar Project*).



**Imagery supplied so far by Planet Action has helped to characterize and measure deforestation, outline the project scope and evaluate carbon stocks. REDD mechanisms are being refined locally, on the ground.**

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