



WWF

FACTSHEET

2014

## WWF FOREST AND CLIMATE PROGRAMME

### REDD+ Inspiring Practices

# BUILDING THE BASIS FOR BIODIVERSITY SAFEGUARDS IN INDONESIA

#### SNAPSHOT

##### What

» A partnership with local logging company Ratah Timber made it possible to develop new methodologies for measuring, monitoring and maintaining biodiversity in the forests of Indonesia's Kutai Barat and Mahakam Ulu districts.

##### Who

» WWF  
» Ratah Timber  
» Kyoto University  
» Norwegian Agency for Development and Cooperation (NORAD)  
» Forest Investment Programme (FIP)  
» Forest Carbon Partnership Facility (FCPF)

##### Where

Kutai Barat and Mahakam Ulu districts, Indonesia

##### When

2010–ongoing

##### Project Team

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#### SUMMARY

This REDD+ Inspiring Practice highlights efforts to build the partnerships and methodologies needed to support REDD+ biodiversity safeguards in Indonesia's Kutai Barat district. This process involved working closely with Ratah Timber, a local logging company with an extensive timber concession, to establish plots within the concession in which plant and animal biodiversity could be tracked over time. The work revealed important lessons about how best to monitor the forest's health and navigate the private-sector partnerships that monitoring entails—lessons that will inform best practices for establishing biodiversity safeguards in this rapidly developing region.

#### CONTEXT

The tropical rainforests of Indonesia's Kutai Barat district and its environs hold some of world's greatest biodiversity, including several plant and animal species found nowhere else on earth. Here, deer and wild boar live alongside orangutans, as well as some species that have yet to be discovered or named.

But this abundance of life faces the threat of rapid deforestation. Indonesia is losing 1.17 million hectares of forest per year—one of the highest rates of deforestation and forest degradation in the world. In Kutai Barat and the newly-formed neighboring Mahakam Ulu district, nearly half of the region's remaining 2.4 million hectares of contiguous tropical forest has been allocated for

**WWF AND ITS PARTNERS IDENTIFIED CHALLENGES, OPPORTUNITIES AND BEST PRACTICES FOR MEASURING AND TRACKING PLANT AND ANIMAL BIODIVERSITY OVER TIME, AND FOR SECURING THE SUPPORT AND ASSISTANCE OF THE CONCESSION-HOLDING COMPANIES POISED TO PLAY A KEY ROLE IN THE FOREST'S FUTURE.**

development through government-granted concessions. The pressures of unsustainable logging, coal mining, and the spread of oil palm and paper fiber plantations in the region are still driving forest loss.

Protecting the region's biodiversity from these pressures requires well-designed and well-implemented safeguards. It also requires ongoing monitoring to measure the impact of logging and other development activities on local forests, and to ensure that the agreed-upon biodiversity safeguards are actually preserving forest health. In 2012, WWF partnered with Kyoto University and Ratah Timber, a Forest Stewardship Council-certified timber company with a nearly 100,000-hectare concession in the Kutai Barat district, to create a methodology for monitoring forest health that could serve as a basis for building REDD+ biodiversity safeguards. WWF had by then worked for years with Ratah Timber to facilitate its sustainable forest management efforts and FSC certification, and saw in its partnership with the company a unique opportunity to discover together how best to implement biodiversity safeguards in a working, real-world concession site.

Through this pilot program, WWF and its partners identified challenges, opportunities and best practices for measuring and tracking plant and animal biodiversity over time, and for securing the support and assistance of the concession-holding companies poised to play a key role in the forest's future.

#### EXPECTED CHANGES

- Develop a model system or methodology for monitoring biodiversity and forest health on sites impacted by logging and other activities, in support of biodiversity safeguards
- Strengthen private-sector partnerships and partner capacities to ensure that biodiversity safeguards are successfully implemented as part of sustainable forest management
- Identify best practices for monitoring and biodiversity safeguard development that can inform regional and national REDD+ policies



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Arif Data Kusuma, WWF Kutai Barat Project Manager pictured on PT Ratah Timber concession.



## STAKEHOLDERS

### DIRECT STAKEHOLDERS

INVOLVED IN PROJECT DESIGN, MAKE DECISIONS, AND RECEIVE BENEFITS

- WWF
- Ratah Timber
- Kyoto University

### STRATEGIC STAKEHOLDERS

PROVIDE MATERIAL, HUMAN, AND OTHER RESOURCES

- Kyoto University
- Norwegian Agency for Development and Cooperation (NORAD)
- Forest Investment Programme (FIP)
- Forest Carbon Partnership Facility (FCPF)





COMPANIES WOULD BE MORE LIKELY TO DEVELOP AND IMPLEMENT BIODIVERSITY SAFEGUARDS IF THESE WERE REQUIRED BY LAW, AND IF THE GOVERNMENT PROVIDED SUITABLE INCENTIVES FOR REDUCING CARBON EMISSIONS AND OTHERWISE PROTECTING FOREST HEALTH.

#### PROJECT DEVELOPMENT TIMELINE

**2009:** Indonesia develops a National Action Plan to Address Climate Change, engaging the nation in REDD+ and establishing the Heart of Borneo—and, with it, Kutai Barat—as a sub-national strategic area.

**2010:** Community capacity-building, mapping and forest inventory begin with the establishment of a Kutai Barat WWF office.

**2010:** The Kutai Barat WWF team begins a multi-year partnership with Ratah Timber to facilitate the logging company's transition to sustainable forest management and FSC certification.

**2011:** Indonesian and U.S. governments sign debt-for-nature swap agreement resulting in US\$28.5 million investment to help protect Borneo's forests, with Kutai Barat as one of the three priority districts.

**2012:** A National REDD+ Strategy for Indonesia is launched; the Kutai Barat Government and WWF-Indonesia agree to formulate a programme plan for reducing emissions from deforestation, forest degradation and peat land.

**2012:** In June, WWF and Ratah Timber begin biodiversity monitoring and safeguards research with training and assistance from Kyoto University. The partners established 0.12-hectare plots throughout the nearly 100,000-hectare concession to characterize and monitor vegetation through satellite imaging and on-the-ground assessment of trees. They also set up and maintained at least 100 camera "traps" (stations with hidden cameras for filming wildlife) to monitor animal biodiversity as well.

**2012:** In December, the Indonesian government approves a proposal to split the Kutai Barat district, creating the new district of Mahakam Ulu.

**2013:** Pilot testing of biodiversity safeguards and monitoring continues in Ratah Timber concession site; the methodology and its findings are published in the journal *Forest Ecology and Management*.

**2014:** Work under way to replicate biodiversity safeguards and monitoring in other logging concessions in the newly formed Mahakam Ulu District.



## ACHIEVEMENTS

- With training and support from Kyoto University forest researchers, WWF and Ratah Timber were able to create a successful methodology for assessing and monitoring biodiversity on the concession site. They used satellite data to categorize vegetation type and condition into six classes, a step that reduced the overall cost of the process. They then established 60 plots (10 for each class) in which they conducted on-the-ground assessments, identifying tree species and measuring trees to evaluate the health of the forest. They also maintained 10-camera stations with a 1-kilometer radius per station to monitor wildlife biodiversity on the site. This multifaceted approach provided the researchers, WWF and Ratah Timber with a detailed, thorough and useful picture of the site's biodiversity.
- This pilot program produced a methodology that can serve as a basis for building biodiversity safeguards and assessing their effectiveness as part of a national REDD+ strategy. The simplicity and cost-effectiveness of this approach means it can be applied in multiple sites—for example, in forests that are managed sustainably and those that are not—over time to track changes in biodiversity due to logging impacts, and to identify best practices that can preserve biodiversity.
- WWF and Ratah Timber successfully worked together to design and implement a biodiversity monitoring methodology, modeling the kind of private-sector partnership that can make REDD+ more effective and far-reaching in its impact.



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## CHALLENGES

- **Coordinating monitoring activities was difficult due to a host of logistical challenges.** Because Ratah Timber's offices are located far from the concession site and because some company employees were not aware of the pilot program's needs, it was not always possible to acquire advance notice of the company's activities in any given portion of the concession area, even though this information was necessary to keep monitors and their equipment safe.
- **Logging companies like Ratah Timber have limited capacity to conduct monitoring activities and implement safeguards.** Although Ratah Timber was fully engaged in the process and invested in its outcome, the process did introduce additional costs for the company.

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CAN MAKE REDD+  
MORE EFFECTIVE  
AND FAR-REACHING  
IN ITS IMPACT.



100%  
RECYCLED

## OUR VISION

WWF's Forest and Climate Programme works to ensure that the conservation of tropical forests as carbon stores is secured by green economic development that benefits people, the climate and biodiversity in transformational ways.

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**Why we are here**  
To stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature.  
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## LESSONS LEARNED

- **Partnerships with the private sector are critical for REDD+ success.** Developing and testing a methodology for monitoring biodiversity on Ratah Timber's concession site was only possible because the company was willing to engage in the process, acquire the necessary training to assist with the work, and allocate the time and resources to participate from start to finish. Their willingness grew from a long-term collaboration that has built mutual trust, which will be necessary to implement a REDD+ strategy that is inclusive of the private sector along with all other stakeholders in the fate of the forest.
- **Biodiversity safeguards will not be effective without proper regulation and strong incentives.** Biodiversity safeguards are not currently mandated for companies that hold concessions in the Kutai Barat region, even for those that are FSC-certified, and implementing such safeguards can increase operating costs. This limits companies' capacity and willingness to allocate the additional time, money and resources that preserving biodiversity requires. Companies would be more likely to develop and implement biodiversity safeguards if these were required by law, and if the government provided suitable incentives for reducing carbon emissions and otherwise protecting forest health.
- **It is essential to build on companies' considerable investment in the health of the forest.** Ratah Timber is not the only company at work in the Kutai Barat region that is interested or invested in the health of the forest. Several companies have expressed a desire to serve as study sites and implement similar methodologies to monitor biodiversity on their lands, but do not have the time or resources to pursue doing so on their own. With the right regulations and incentives in place, these companies could play a key role in REDD+ by making biodiversity safeguards an integral part of how they do business.