

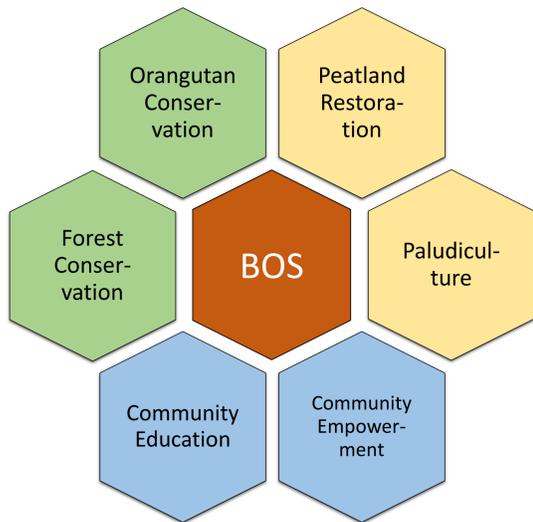
# Borneo Peat Swamp Forest and Orangutan Conservation in Central Kalimantan, Indonesia

Teresa Rojas Lara, Nina-Maria Gaiser

## INTRODUCTION

This poster presents practical experiences from the work of Borneo Orangutan Survival (BOS) Foundation in cooperation with BOS Germany in addressing peatland restoration, fostering community engagement and safeguarding biodiversity. BOS is the biggest primate conservation NGO, whose mission is to contribute to the conservation of the Bornean Orangutan and its habitat.

Figure 1. BOS Activities in Central Kalimantan, Indonesia



## BACKGROUND AND PROBLEM STATEMENT

- Since 1950 Borneo has lost around 50% of its forest cover.
- Bornean Orangutan populations declined by 70% since the 1960s.
- In 2019, more than 1.6 million hectares in Indonesia were destroyed by fires (42% were peatlands). → Peatland and forest fires are the largest contributors to Indonesia's greenhouse gas emissions.
- Poverty in peatland areas is 2-4 times higher than in the rest of Indonesia.
- Unsustainable land use is the main driver of deforestation: slash and burn techniques, expansion of agriculture, plantations, mining, illegal logging.
- Population in Central Kalimantan: Dayak (46.6%), Banjarese (21.3%), Javanese (21.7%), Malay (3.9%), others 6.5%.

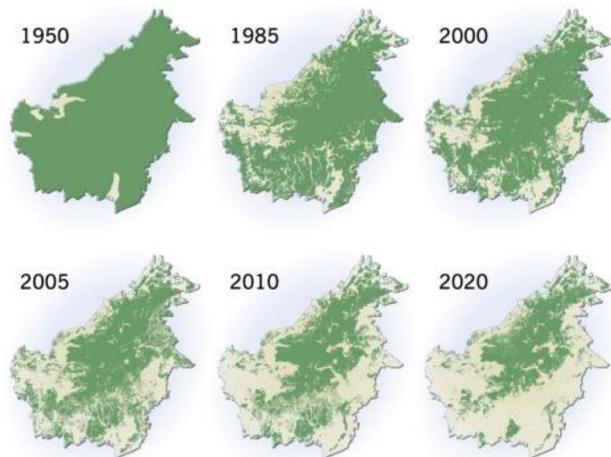


Figure 2 Forest Cover in Borneo from 1950 to 2020  
Source: UNEP

## PROJECT AREA

- Ex-Mega Rice Project.
- 309,000 ha of protected peatlands called "Mawas".
- Harbors one of the largest wild orangutan populations (2,550 individuals).
- Regular peat and forest fires.
- Mawas has 13 to 15 meters high domes of peat.
- 29,000 families in 53 villages.
- Livelihoods: agriculture (75% of the population), small-scale farming, subsistence swidden agriculture, fishing, small-scale trade, work in palm oil companies or mining.

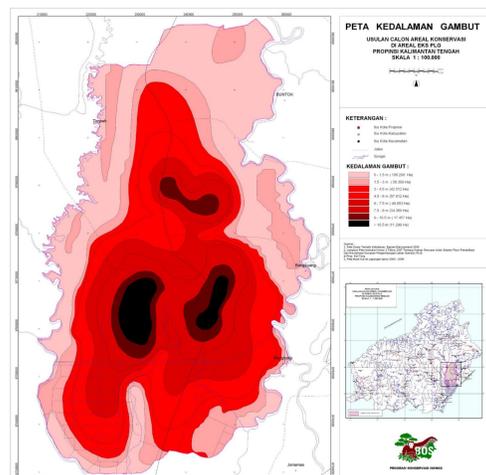


Figure 3. Peat Map of Mawas, Indonesia

## APPROACH

- **Peatland restoration: Restoring peat soils through rising the water table**
  - Canal blocking: construction of dams.
  - Planting trees on dams.
  - Peat hydrology monitoring and research.
- **Community development: Supporting rights and sustainable livelihoods**
  - Participatory approach and capacity building.
  - Alternative income sources: paludiculture, agroforestry, organic rice, *beje* fishponds, microcredits for business ideas, etc.
- **Orangutan and forest conservation: Protecting and creating orangutan habitat**
  - Orangutan research and monitoring.
  - Awareness raising environmental education, human-wildlife conflict prevention.
  - Forest and peat fire monitoring.
  - Reforestation and assisted natural regeneration.



Figure 3. Peatland Restoration



Figure 4. Community Development



Figure 5. Orangutan and Forest Conservation

## RESULTS

- **Peatland restoration:**
  - 153 dams built.
  - More than 2.000 ha rewetted.
  - Increase in biodiversity (birds, insects, mushrooms).
  - Establishment of 255 community fire patrols.



Figure 6. Degraded Peatland



Figure 7. Peatlands after 4 Years of Intervention

- **Community development:**
  - Various business ideas realized by women who participate in the microfinance groups in 3 villages.
  - Sustainable resource management supported: 5 *beje* fishponds, 1 ha organic rice pilot site, 4 ha of agroforestry test fields, sustainable fishery, community gardens, fish processing and marketing, etc.
  - Development of village development plans in 6 villages, including village land mapping and trainings on IPLC's rights in 2 villages.
- **Orangutan and forest conservation:**
  - Since 2019, reforestation of more than 280 ha with over 300,000 trees..
  - Return of orangutans to reforested area.
  - 255 community patrols in 2022 to detect illegal logging and fires.



Figure 8 and 9. Activities Performed by Women



Figure 10. Orangutan Monitoring

## OUTLOOK

- **Peatland rehabilitation:** Continue canal blocking/ rewetting and fire prevention. Increase monitoring of peat hydrology.
- **Community development:** Increase skills of local communities, with emphasis on income generation through the sustainable management of natural resources, including fire prevention and exploration of paludiculture potentials (e.g., rattan and *purun* grass cultivation, more traditional fishponds (*Beje*)). Strengthen land ownership and forest management rights of IPLCs.
- **Orangutan and forest conservation:** Continue reforestation and assisted natural regeneration with native trees and orangutan food trees. Increase efforts against illegal logging.