

March 2026

2025 Update: Forest conservation in Papua, Indonesia

Field partner: YAPPENDA

This update covers conservation and restoration efforts in Papua, Indonesia, where some of Juniper's funds were applied (thank you!). This project is unusual in that Biome is helping a new NGO get started where one was badly needed. So we are dealing with capacity development along with program work.

Quick summary

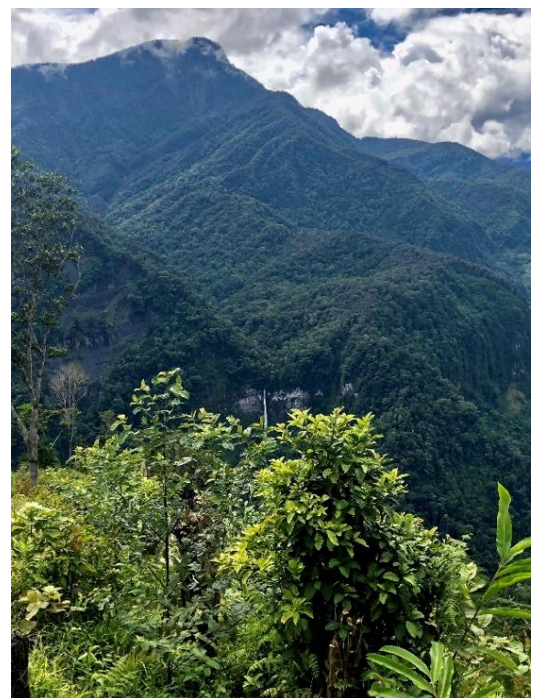
- Scientific field research is vital for developing human capacity for biodiversity conservation in Papua, as was demonstrated in Papua New Guinea. Locally hired field assistants end up as researchers and decision makers. A mission-critical advance for YAPPENDA was the signing of an MoU with the National Research and Innovation Agency. This affords YAPPENDA the legal framework for its research operations, including the ability to arrange research permits.
- To restore steep slopes that had been deforested, 4,733 trees were planted at nine sites.
- Science and conservation were advanced through collaboration between YAPPENDA and organizations such as Kew Gardens, Re:Wild, Natural History Museum (UK), Singapore Botanical Gardens, Oxford University, Cambridge University, A Rocha, BRIN, BRIDA, EcoNusa and UNCEN/UNIPA (Papua universities).

Your support was used for: Core support for YAPPENDA personnel, and forest restoration along the margins of receding lowland- and montane-tropical rainforest.

Background

The Indonesian side of the island of New Guinea has had little conservation activity, despite its high importance. Prior to 2022, there had been no organization in Papua with the capacity to work with international conservation organizations and funders. Biome has been helping to establish and build YAPPENDA for three years. Its focus is working with indigenous Papuans in ways that afford them sustainable livelihoods and alleviate current resource use problems. Community and culture are tightly connected to healthy productive ecosystems making land rights a concern.

Papua is the crown jewel of Indonesia's forests. Western New Guinea retains 92% of its original forest cover (amounting to 33.8 million hectares) and has roughly 10% of the planet's biodiversity. Being a large island there are many rare or endemic species including Attenborough's long-beaked echidna (*Cyclops Echidna*), Sentani rainbowfish, a majority of the of birds of paradise, and the New Guinea singing dog.



These species face threats from logging (illegal and legal), mining and other forms of natural resource extraction. Over the past two decades, the Papua region has lost 663,443 hectares of natural forest cover. Left unchecked, logging and land clearing will cause irreparable damage to a hot spot for global biodiversity. Currently, a lack of economic opportunities for local people weakens their ability to resist these intrusions. As development proceeds, YAPPENDA aims to guide them in using their natural resources in a manner that protects biodiversity full providing economic benefits.



The two project locations are in the Cyclops Mountains, a coastal range in Jayapura Regency, and Yahukimo, in the central highlands. Traditional communities depend on wood for firewood and construction material for homes and fences. Population growth has spurred demand, leading to deforestation.

Results

Forest restoration

One of the ways the project is reducing primary forest degradation is by implementing sustainable management of forests and simultaneously restoring deforested areas. In 2025, 14,733 trees were planted, exceeding the target of 12,000.

Last year there was high mortality rate among the project's reforestation plots, due in part to poor performance from work crews. There was an estimated 50% loss of fruit trees and 20% loss of other trees. We expect that improved coordination in remote areas will reduce tree mortality in future.

Scientific partnerships

Scientific research is important for conservation in New Guinea, both for elucidating a little-known flora and fauna, but also for developing human capacity for biodiversity conservation. Locally hired field assistants can and will become researchers and decision makers. YAPPENDA is linking international and national research institutions and local communities (who benefit most from a healthy ecosystem). New international research partnerships have been forged with Kew Gardens, the Natural History Museum (London), and the Singapore Botanic Gardens. National institutions include the National Research and Innovation Agency (BRIN) and District (BRIDA), research and innovation agencies, EcoNusa and UNCEN/UNIPA (Papua universities). These collaborations are lay a foundation for YAPPENDA's planned 10-year scientific research program covering all of Papua.

A very important advance for YAPPENDA was the signing of an MoU with BRIN. This affords YAPPENDA with the legal framework for its research operations, including the ability to arrange research permits. This is a significant development that few grass-roots organisations in Papua have achieved. It will strengthen the conservation work of YAPPENDA moving forward.

Challenges in Papua

The operating environment in Papua remains complex and, at times, dangerous. Conflict between pro-independence groups and security forces has escalated, spreading beyond the usual hotspots of Nduga and Intan Jaya. In 2025, violence intensified in Yahukimo, posing real risks to environmental activists and researchers. This caused the project to pause restoration efforts in Doyo.

For various reasons, neither of YAPPENDA's planned expeditions happened this year. YAPPENDA had planned an expedition to locate the highly endangered Wondiwoi tree-kangaroo (*Dendrolagus mayri*) and use that data to plan further research, with the end goal a long-term preservation plan for the species. A second expedition would have taken us into the Yahukimo mountains for a general bio-diversity study at altitude (high montane forest) in an area never previously surveyed. YAPPENDA hopes to undertake these expeditions and a third one in 2026.

Despite the challenges, the resilience and determination of the YAPPENDA team shine through.

Looking forward

In November 2025 YAPPENDA was approached by a traditional landowner whom YAPPENDA has assisted with reforestation. He would like to create a protected area on his 100-hectare land, which contains some of the last remaining primary forest in the Baliem valley. It has a natural spring that supports an important watershed that feeds into the Baliem river. This is the sort of opportunity YAPPENDA exists to create and assist with.

In 2026 YAPPENDA is working on plans for a research station to host local and international students and researchers and serve as YAPPENDA's head office. The two mentioned surveys are planned, along with a survey for the Biak (Giant Rat; *Uromys boeadii*).

Thank you for your support for this project! With our support, YAPPENDA is advancing biodiversity conservation in Papua while creating sustainable livelihood opportunities and inspiring a new generation of conservation leaders.

Please let us know if you have any questions or feedback or would like to discuss this project.

Biome's Project Lead for this project:

Andre Boraks

PhD, Director of Programs & Data,

andre@biomeconservation.org



An estimated 50 individuals exist of the elusive Wondiwoi tree-kangaroo