



Borneo
Nature
Foundation



BORNEO NATURE FOUNDATION ANNUAL REPORT





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Executive Summary



As the COVID-19 pandemic come to an end, community activities have also slowly recovered in 2022. This became a sign for the conservation work in continuing various activities at the grass-roots level.

After facing challenges for about two years, Borneo Nature Foundation (BNF) continues the consistency in conservation efforts. Together with partners, government, communities, and donors, we strengthen our work in Central Kalimantan. We focused on strengthening forest management institutions, habitat restoration, scientific studies, community empowerment, and public outreach.

All these conservation efforts are carried out holistically in three landscapes in Central Kalimantan: The Sebangau Landscape which is a peat-swamp forest area; The Rungan Landscape which is a mosaic-forest area with heath dominant; and Barito Ulu which is located in the heart of Borneo and surrounded by hills.

Our achievements and work in 2022 are the result of the joint hard work of all employees, the board of directors and management. In this opportunity, BNF's big family would also like to thank all partners, including the Indonesian government, universities, private sectors, communities, fellow Civil Society Organizations (CSOs), friends, and donors.

BNF always look forward and strives to protect the rainforests, biodiversity, and cultural heritage even more while involving the community and work collaboratively with multi-stakeholders. We hope that our work can get a bigger impact than before.

Protecting the forest, protecting the life.

Juliarta Bramansa Ottay

Chairman of Yayasan Borneo Nature Indonesia



Highlights Of 2022

Coming out the other side of the Covid-19 pandemic, our dedicated, innovative teams in Borneo and beyond have not only re-launched our activities which were paused or altered due to the pandemic but also found ways to expand them to have even greater impact than before. We have re-launched our primate follows to monitor populations and behaviours of orangutans and gibbons and returned to face-to-face delivery of our education sessions within local schools and community groups. We have achieved our greatest tree-planting effort to date, with 172,316 trees planted this year. Our support for community firefighting and patrol teams has grown, and the number of social forestry villages established with our support has increased. We are proud of our resilience throughout the global pandemic and our bounce back this year.



2022 in Numbers



192 hours
of primate observation

10 student projects
supported



13 scientific articles/book
chapters



published with
BNF authorship

268,786 trees planted to
date

planted in service of our
1 Million Trees campaign
to date



6 students
awarded
the Orangutan
Caring Scholarship



3 landscapes
studied

15 community-led

firefighting and
patrol teams



19 social forestry villages

15 community nurseries



2022 in Numbers

15 training sessions



in sustainable
livelihoods in
2022

97 reports



in local,
national and
international
media

122 environmental
education sessions
delivered



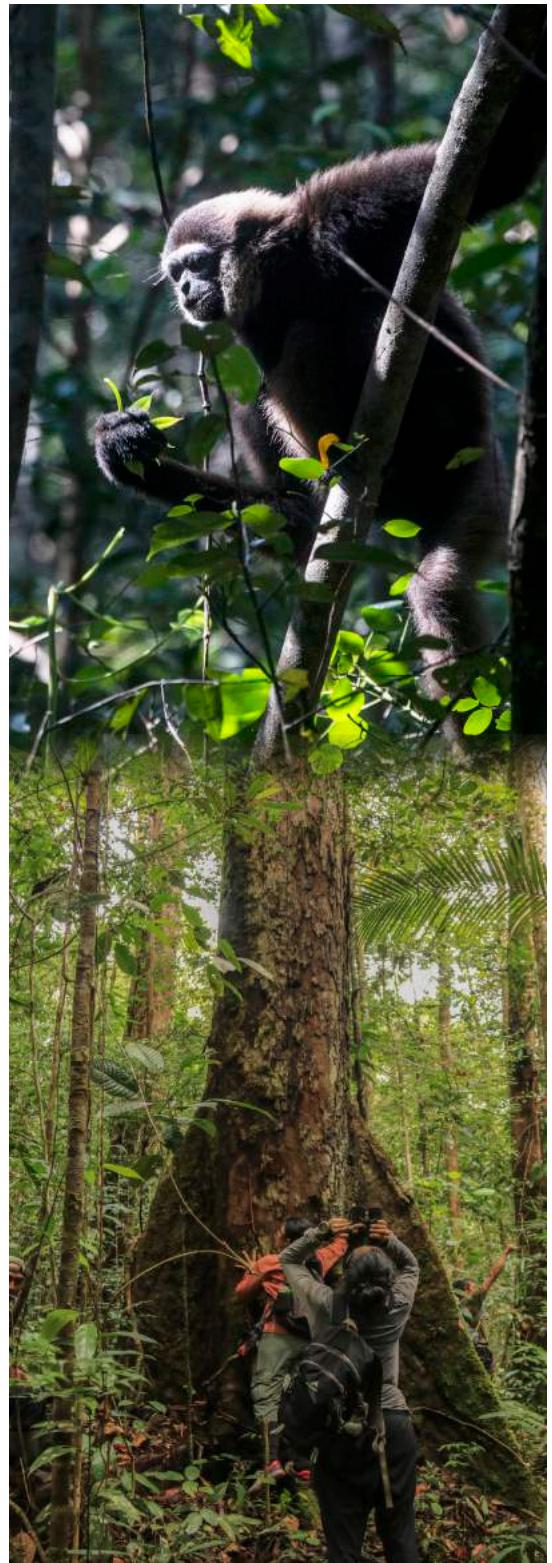
137,587 audiences reach
through outreach events



Research

Coming out from the other side of the Covid-19 pandemic and having identified the transmission risk to primates was again low enough to be safe, we re-launched our primate monitoring project in February 2022. As our focal individuals haven't been monitored since March 2020, the first step was to get them used to the presence of our researchers again through our rehabilitation process. During this process, the team would monitor orangutans and gibbons for a short time at distance, to avoid any discomfort for the focal primates. This process lasted until September, where the team encountered and monitored 3 previously well studied groups of gibbons and 4 pairs of mother/infant orangutans, as well as unknown flanged males and adolescents, and a new female with infant. From October to December, the primate field team spent over 446 hours searching for primates, and over 191 hours monitoring them. All the individuals seen during 2022 appeared to be in good health. well studied groups of gibbons and 4 pairs of mother/infant orangutans, as well as unknown flanged males and adolescents, and a new female with infant. From October to December, the primate field team spent over 446 hours searching for primates, and over 191 hours monitoring them. All the individuals seen during 2022 appeared to be in good health.

We also supported biodiversity surveys in several villages' forests in addition to the existing long-term biodiversity monitoring surveys which ran as usual within our conservation project sites. These surveys aimed to document the biodiversity of the area to inform land management and conservation strategies for the future. In one of the village forests, 160 orangutan nests were found, along with evidence of gibbon presence, 22 species of birds, 17 amphibians, and 2 lizards. This first documentation is an essential and very encouraging step for developing social forestry initiatives.



Research



Another exciting comeback in 2022 was the facilitation of Indonesian and International students' projects. In total, 8 students conducted field studies and two conducted desk-based studies with the support of BNF. In addition, 6 Indonesian students from the University of Palangka Raya (UPR) received the Orangutan Caring Scholarship, awarded annually in collaboration with the UPR Department of Forestry, the Orangutan Republik Foundation and BNF, to support students in their studies and to become leaders in the protection of their natural heritage.

2022 marked a year of technological innovation. Trials of a new technique for orangutan population assessment have been conducted by independent student researchers, using drones for aerial nest counting to improve the accuracy, and cost-efficiency of our current ground-based counting method.

As a result, we have received training in the use of this technology and hope to use this innovative method to survey the wider orangutan population across the National Park in the coming year. The current nest count project suggests the orangutan population is still stable in the Sebangau National Park, with even a potential slight increase of the estimated population size.

The BNF Cat Initiative continued in 2022 with deployment of camera traps in 3 landscapes to monitor the 5 wild cats of Borneo. This work is increasing our knowledge of these cats, the threats to the cats and their habitat and helping to inform conservation actions.

BNF also supported the launch of the Rungan Bioacoustics Group. The scientific study group is a collaboration between several students from international and local universities. Using passive acoustic recording devices, this project aims to monitor threatened wildlife and ecosystems across the Rungan Landscape, helping to inform forest management initiatives. Working with community members from Tahawa village, we deployed 24 SwiftOne passive acoustic recorders between October and December 2022 in forest areas east of the Kahayan River; these recorders were then moved west of the Kahayan River in January 2023 where data collection is ongoing. So far, these acoustic surveys have identified orangutans, gibbons, red langurs, 20 bird species, and 3 amphibian species.



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Habitat Protection

We have continued to develop our Integrated Fire Management (IFM) strategy, working closely with the Sebangau National Park Agency and local communities to deliver training, establish patrol groups, and strengthen awareness around fire safety. Three IFM training sessions were held in 2022, each attended by 40 firefighters. Three new community firefighting and patrol teams began receiving support from BNF, including our first women-led team, bringing the total number in operation up to 15. Two of these teams are fully operational year-round, while others are gradually increasing their patrol efforts to match. With another El Niño predicted for 2023, these teams will play a crucial role in protecting the peat-swamp forest areas throughout the dry season and beyond.



In the Rungan landscape, several new agreements have been signed with government and corporate stakeholders on land-use and biodiversity management. In 2022, we have continued to expand the regional Social Forestry programme, helping indigenous communities to obtain legal management rights over their ancestral forests. As a result, two new Social Forestry permits were approved this year, bringing the total number of Social Forestry areas supported by BNF up to 19. In addition to the existing 25,054 hectares protected under these schemes, 11,524 are under development with another 7 Social Forestry applications in progress.





Habitat Protection

In recognition of Indigenous People and Customary Land within the Rungan landscape, we have supported the technical verification of a 5,000 ha Customary Forest for the region's historic Dayak communities. Meanwhile, our plans to develop a wildlife corridor have progressed, culminating in the establishment of a Rungan-Kahayan Wildlife Corridor Forum this December. The working group will be decreed by the Governor of Central Kalimantan next year, followed by consultations with the Directorate of Ecosystem Recovery Management Development. Heading into 2023, our next steps are to conduct stakeholder mapping and check the spatial plan for the proposed corridor area, after which it can be incorporated into the Environment Service's wider Environmental Protection and Management Plan.

BNF is working with government partners to design a landscape-level protection plan to maintain the large expanse of connected rainforest and important ape habitat found here. Through our partnership with the regional Department of the Environment and Forestry and the specific Forest Management Units, we are working to develop and deliver a proposal to create a new Essential Ecosystem Area (Kawasan Ekosistem Esensial: KEE) to protect this habitat. KEE's are unique in Indonesia in that they can be applied across large multi-use landscapes, including areas designated for conversion to oil palm, but alter the management priorities within the KEE. Where conversion to plantation was previously planned, now protection of High Conservation Value (HCV) areas takes a higher priority, and development is restricted only to areas where it will have a minimal impact on biodiversity. In 2022, we made progress towards the development of a KEE for the Rungan landscape alongside key partners in the region; over the coming months we will be learning from other successfully established KEE's to learn about designation, application and management practices.

Following on from this, BNF and partners held a workshop to form a working group to establish a Rungan-Kahayan Wildlife Corridor Forum. The working group will be decreed by the Governor of Central Kalimantan in early January, after which, consultations with the Directorate of Ecosystem Recovery Management Development (BPPE) will occur. Next steps include checking the spatial plan for the proposed corridor area, conducting stakeholder mapping and incorporating the proposed corridor plan into the Environmental Protection and Management Plan (RPPLH) of the Central Kalimantan Environment Service.

Restorations



In December 2019, we launched our 1 Million Trees project, aiming to grow, plant, monitor and protect 1 million trees by 2025. We intend to meet this target by upscaling our community nurseries (CNs) project over the next three years, establishing a total of 25 CNs by 2025.

This year, we have established four new community nurseries, bringing the total number of supported nurseries to 15, with 114 members supporting and benefiting from the project. Our community nurseries are run by local families, generating an average annual income of \$831.16 per person (12,026,900 Rp). BNF's support for this initiative takes the form of training and resources, providing equipment and expertise to participating community members.

At the end of August, we initiated our biggest tree planting effort to date, planting 172,316 trees across three target reforestation areas in just over three months. We vastly surpassed our planting target for 2022, taking the total number of trees planted since the project began to 268,786. To commemorate Indonesian National Nature Conservation Day on the 8th of August, BNF supported the Sebangau National Park Agency in the ceremonial planting of 200 endemic tree seedlings. This event achieved regional news coverage and represents the flourishing partnership between the Sebangau National Park Authority and BNF.

As part of the post-planting process, seedling growth and survival is closely monitored across BNF's reforestation sites. This builds upon a decade of work researching the most suitable species and planting methods to promote seedling survival in the uniquely challenging burned peatland environment. After continuing to refine our methods, results from the latest monitoring activity of a set of seedlings planted in October 2021 revealed that the average seedling survival rate is 81% at six months post-planting. We are extremely happy with these results and will continue to monitor these seedlings, as well as newly planted ones, over the coming years.



Hydrology Reforestation

Man-made canals once used for illegal logging are a major source of peatland drainage, causing the peat to dry out and lose its natural protection against fire. To mitigate and reverse the damage, we have been blocking these drainage channels with dams built along critical flow-points. Earlier this year, we identified 11 canals to be blocked on the Koran and Simpang Kanan rivers. Since then, we have concentrated our efforts on four canals along the Koran River, situated at the north-eastern edge of the Sebangau National Park.

This year, our teams of BNF staff, community members and representatives from the Sebangau National Park Authority built 33 dams, with the third phase set to be carried out early in 2023. These activities will help to stabilise the water table, reducing the rate of dry season drawdown and protect against forest fires. Our recent hydrology monitoring has shown a reduction in water flow after damming by an average of 68%; this is a significant improvement in water retention and will help reduce the likelihood and impact of fire outbreaks.





Community Development

We empower communities to increase and diversify income streams, promoting creativity and self-sufficiency, whilst encouraging cultural heritage to be incorporated into livelihoods. 15 villages have engaged with our community development programme so far, taking up a range of activities from permaculture, backyard aquaculture, ecotourism development, honeybee cultivation and handicrafts. The majority of participants are women, providing an independent source of income that can be flexibly managed alongside childcare responsibilities.

Our staff host regular focus group discussions with communities to troubleshoot any issues, identify resource needs, and help develop local business plans. We delivered 15 training sessions with local partner organisations this year. In August, we collaborated with academics from the Fisheries Department of the University of Palangka Raya to deliver a two-day training event on freshwater aquaculture, combining theory with practical exercises to prepare communities for fishpond development in their villages. We also partnered with the Permaculture Kalimantan Foundation and Sebangau National Park Agency to host training sessions on permaculture practices, including vegetable growing, composting and the use of organic fertiliser. These training opportunities will enhance the uptake of sustainable livelihood practices and help communities to become more self-sufficient. As well as producing more food for their own consumption, community members gain additional income by selling their produce (vegetables, freshwater fish, honey, etc.) at the market and amongst their neighbours.

Within our community development programme, we support local families' involvement in community nurseries for our reforestation project as well as community-led firefighting teams to protect the forest from fires. In total to date, this involves 191 community firefighters and 114 community nursery members. Not only do these activities provide income but also opportunities for local people to take ownership of conservation action in their nearby forest.





Environmental Education and Outreach

After the Covid-19 pandemic, our dedicated education and outreach teams have been re-launching our face-to-face activities in 2022 to further our vision of empowering a conservation generation. In our nature club, Anak Sebangau (Sebangau Kids), we ran 47 nature-connectedness sessions with an average of 15 children joining each activity. We delivered our Anak Sebangau festival at the end of the year for the children to show their families and friends what they have learned during the year and inspire others to engage with BNF and local wildlife. This year the festival focussed on “me and nature” and reached 457 people. We have also restarted our face-to-face teenager’s nature club, Sebangau Rangers, having delivered 41 sessions with an average of 8 attendees per session. This group took part in 6 field trips to visit conservation projects and learn about the different types of forests.

Once schools reopened in July 2022, BNF established a new partnership with the Central Kalimantan Provincial Education Office to deliver environmental lessons in high schools in Palangka Raya. We delivered 12 conservation sessions and one field trip to the forest, covering topics of tropical rainforest ecology, biodiversity, threats to forests and conservation solutions; 19 students and three teachers joined the sessions. The students then developed a conservation campaign in their school which more than 100 other young people attended.





Environmental Education and Outreach

Currently, in Indonesia there is no environmental education in the national curriculum. To help schools incorporate environmental education into their lessons, we have established a new partnership with the local government's education department to develop a booklet and training for teachers. We are also supporting a local school to become a "green school – Adiwiyata", incorporating conservation messages in their daily sessions and adopting green practices like recycling and running an allotment.

Working towards our goal to ensure children living in remote communities have access to environmental education, we have been delivering environmental education lessons in the rural areas bordering Rungan landscape. In 2022, we delivered 13 sessions in the local school of Mungkubaru and 8 weekly sessions with two religious groups, reaching a combined audience of 87 children. 'Gibbon Goes to School' is one of BNF's ongoing education initiatives that raises environmental awareness among young children through interactive storytelling using BNF's storybook 'The Little Gibbon Who Lost His Song'. In 2022, we delivered 4 sessions in 3 different community groups and 1 school, reaching a total of 121 children and 10 teachers. We also did one online session reaching 42 children. Our Education Team has also collaborated with the Sebangau National Park Office to write a children's storybook. This illustrated storybook tells the story of 9 primates that live in Sebangau National Park, with the aim to improve literacy and increase understanding of wildlife.





In addition, our outreach teams reached 137,587 audiences through online and offline events. The aims of these events are to deliver conservation messages to protect the rainforest, endangered species and the cultural heritage in Borneo.

Our biggest event this year is International Orangutan Day named “Hajatan Orangutan”. This was a hybrid event in collaboration with BKSDA and FORKAH (Forum Konservasi Orangutan Kalimantan Tengah). Attended by more than 1,000 participants within the three days event and reach 101.813 online audiences. Central Kalimantan Governor’s wife and a local artist have also been involved in this orangutan campaign with the theme “Orangutan hidupnya di hutan” – Orangutan should live in the forest.



Acknowledgements

None of BNF's conservation actions would be possible without our incredible network of global partners, collaborators and supporters. We look forward to continuing to strengthen these partnerships, working together towards a shared goal of safeguarding vital forest habitats for the conservation of biodiversity, socio-economic and cultural values.

BNF is thankful to the **Government of Indonesia** for their invaluable support and partnership, in particular:

Indonesian Ministry of Environment and Forestry (KLHK)

General Directorate of Social Forestry and Environmental Partnership (PSKL)

Sebangau National Park Authority (BTNS)

Natural Resources Conservation Agency Central Kalimantan (BKSDA)

Indonesian National Research and Innovation Agency (BRIN)

Centrak Kalimantan Environmental Agency (DLH)

Environmental Agency (DLH) Murung Raya District

Environmental Agency (DLH) Palangka Raya city

Environmental Agency (DLH) Pulang Pisau District

Forestry Agency Central Kalimantan (DISHUT)

Education Agency Central Kalimantan (DISDIK)

Disaster and Fire Management Agency Central Kalimantan (BNPB PK)

Technical Unit for Social Forestry Schemes Kalimantan (BPSKL)

Ministry of Tourism and Creative Economy

City Government of Palangka Raya

District Government of Pulang Pisau

District Government of Gunung Mas

District Government of Murung Raya

Forest Management Units (KPHP) I and II Murung Raya District

Forest Management Units (KPHP – Central Kahayan) III, XIII and XVIII

We are grateful to be partnered with local and international universities, students from which contribute significantly to our research efforts in Central Kalimantan.



University of Palangka Raya (UPR)



Universitas Muhammadiyah Palangka Raya (UMP)



Palangka Raya Christian University (UNKRIP)



National University (UNNAS)



Gadjah Mada University (UGM)



University of Exeter



Oxford Brookes University



Liverpool John Moores



University of Leicester



University of Kent, Cornell

BNF is proud to work alongside community patrol and firefighting teams, improving on-the-ground firefighting capacity for human and ecosystem health.

We offer further gratitude to the communities of Penda Barania, Tuwung, Sigi, Petuk Liti, Bukit Bamba, Parahangan, Tahawa, Tambak, Kasali Baru, Pahawan, Goha, Bahu Palawa, Pamarunan, Balukon, Panjehang, Petuk Berunai, Petuk Katimpun, Marang, Paremppei, Bereng Malaka, Mungku Baru, Sebangau Kuala, Sabaru, Bukit Tunggal, Habaring Hurung, Sei Bangah and Kereng Bangkirai for their engagement and enthusiasm.

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