

**Biodiversity Challenge Funds Projects
Darwin Initiative, Illegal Wildlife Trade Challenge Fund, and Darwin Plus
Half Year Report**

Submission Deadline: 31st October 2023

Project reference	29-007 Darwin Initiative Half-Year Report
Project title	Developing Sustainable Management of Tropical Peatlands in Southern Borneo
Country(ies)/territory(ies)	Indonesia
Lead partner	University of Exeter
Partner(s)	Borneo Nature Foundation
Project leader	Prof Frank Van Veen
Report date and number	October 2023 – HYR2
Project website/blog/social media	Darwin project website ; BNF Website ; BNF Facebook ; BNF Twitter ; BNF Instagram ,

Outline progress over the last 6 months (April – Sept) against the agreed project implementation timetable

During the preceding six months of the project (April – September 2023) we have made considerable progress towards the objectives of the project, with additional outputs and deliverables planned for year 2, and with continued development of the following initiatives:

PROGRAMME MANAGEMENT AND STRATEGIC PLANNING

Programme management: Further coordination meetings have been held with the BNF Programme and Division Managers to ensure progress is being made according to the project work plan and timetable. External meetings with key stakeholders continue regularly, including with all the stakeholders actively engaged with the project. This includes meetings with governmental agencies, community groups, university departments, local schools, and other NGOs, to ensure the work plan is up to date, milestones are achieved as planned, and any issues are tackled promptly.

Stakeholders' partnerships: We are continuing to coordinate, communicate with and work together with key project stakeholders, as previously mapped out in our stakeholder analysis and engagement strategy. Strategic meetings with priority stakeholders have been held periodically to maintain collaborative framework agreements. During the last six months, we have increased coordination efforts with the Sebangau National Park Authority (BTNS); the Central Kahayan Forest Management Units; the Community Management Groups (including community firefighting groups, community seedling nurseries, and social forestry management groups); and particularly with the Central Kalimantan Disaster Management Agency (BPBPK), due to the fire emergency in Central Kalimantan. Specific collaborative agreements have been developed, including the extension of the MoU between BNF and the District government of Pulang Pisau, the University of Palangkaraya, and additional community groups that recently joined the Darwin initiative.

Monitoring and Evaluation: Our work continues to gather performance indicator data according to the M&E plan and the means of verification, including ground data, remote sensing data, and data relating to activities implemented. Progress has been made in gathering complete data in those areas which were previously identified as having sparse baseline data, including the Multidimensional Poverty Community Surveys which assess the impact of BNF's community-led conservation initiatives and peat-swamp forest management.

Risk Analysis and Management Framework: Risk management is ongoing; the identified risks have been monitored actively and additional new registers have been added (*See Risk Analysis and Management Framework spreadsheet - CONFIDENTIAL*). One of the severe identified risks has turned into reality: the 2023 El Niño event has become extreme in SEA, with an extended and severe drought affecting Indonesian Borneo. Hundreds of high-confidence hotspots have been identified across Central Kalimantan and forest fires have

been burning, with the associated hazardous smoke haze compromising Air Quality Indexes, and with an increase in carbon emissions.

BNF has invested major efforts over the last six months in an effective Integrated Fire Management strategy, focusing on prevention, preparedness, and fire suppression within our target areas, and working side by side with key stakeholders. Despite the extremely critical situation and the many necessary interventions that have been led by our network of Community Patrol and Firefighting teams and Governmental Units, to date we are proud to say that only a few hectares of forest have burned in our target areas. At the time of writing this report, the firefighting activities continue, with dozens of community firefighting teams patrolling and tackling fires daily, coordinated by BNF and in partnership with the Sebangau National Park Authority (BTNS) and the Central Kalimantan Disaster Management Agency (BPBPK).

Recruitment: During the reporting period a few additional Indonesian staff joined the BNF team, bringing additional man/womanpower and technical skills where needed. Amongst others, we recruited one additional education staff member, a digital communications staff member, a primate scientist, a community development staff member, a GIS drone analyst and operator, and a technical staff member for hydrology monitoring.

PEATLANDS RESTORATION

Hydrology Restoration: BNF and BTNS have continued to make progress on socialising and developing the canal-blocking strategy with neighbouring communities. In collaboration with BTNS staff and local community members, during the reporting period we created 32 large dams in the sedge area of Canal Bahkan, making a total of 65 dams since the project started. We have mapped an additional 19 canals to be blocked in the future, and priority areas have been agreed upon with the BTNS. Monthly hydrology monitoring continues for previously blocked canals, and baseline data has been collected for newly blocked canals, looking at KPIs for groundwater table increases and water discharge reduction.

Reforestation of degraded areas: BNF, in partnership with BTNS staff, has identified, surveyed, and agreed on three new sites for the 2023 planting. During this reporting period, 20 hectares have been reforested with a total of 17,424 seedlings. New temporary nurseries have been constructed at the targeted reforestation sites, and they are currently housing a further 70,413 seedlings, to acclimatise in preparation for planting in the next few months. Baseline data collection has been completed for the new planting and seedling monitoring, for the 2022 reforested area. During the last six months, BNF has developed and reviewed the planting and monitoring protocols, with additional practices brought in to improve the quality and outcome of our reforestation practices. These include seedling geotagging, landscape characterisation, biomass measurement, biodiversity recovery, and assessment of seedling composition.

After a few months of collaborative work with the BTNS staff and the BNF Habitat Restoration experts, the *2024-2028 Ecosystem Recovery Plan for the Sebangau National Park* has been completed and will be officially launched before the end of the year.

Community Seedling Nurseries: During the last six months, one new community seedling nursery has been established, joining the BNF network that supplies a regular seedling stock for the replanting of degraded areas. To date, a total of 114 community members from five different villages are engaged in a total of 16 community seedling nurseries. The seedling stock supplied by our supported nurseries has doubled this year, reaching 200,000 seedlings/per year.

SUSTAINABLE PEATLAND MANAGEMENT

Enhancing long-term sustainable management of peatlands: Progress has been made over the last six months in the establishment of a new community-protected area (5,416 ha, granted to the Rungan Indigenous Group), Four new social forestry proposals (totalling 7,655 ha) have been processed and decrees are expected to be issued before the end of the year. Our plans for 2024 are to support a total of 12 villages (including 9 new villages) to develop community-managed protected areas, covering a further 10,111 ha.

BNF has assisted the three villages with the development of post-protection schemes by building up the managerial capacity of the Community Management groups, supporting the Protected Area management plans, defining the zoning system, and supporting boundary marking.

BNF, in partnership with the regional government and province-level agencies, has been working on relevant policy frameworks to improve local regulations and action and mitigation plans related to peatlands management. The following regulations and management plans are under development: a 2023-2024 Land and Forest Fires Contingency Plan, a Central Kalimantan Mid-term plan (5Y), a long-term (25Y) Palangka Raya District Biodiversity Management Master Plan (KLHS), a Central Kalimantan Province Social Forestry and Customary Forest Regional Regulation, and a Central Kalimantan Action Plan for Mercury Reduction and Elimination (RAN-PPM).

Paludiculture practices and sustainable fisheries development: In the last six months, we have increased our impact from 206 community members from 10 villages in 10 groups to 390 community members from 16 villages in 24 groups. This includes 184 new individuals from 7 villages who have been engaged to develop more 'peat-friendly' agriculture and sustainable livelihood models in peatland areas.

Following the 14 capacity-building sessions related to paludiculture practice development, we have implemented an additional 19 sessions in the past six months. These have involved 192 community members from 8 villages.

Education and community outreach: During the past six months, a total of 86 environmental education sessions (including school modules and after-school activities) have taken place, reaching a total of 408 children and teenagers. BNF also has held several public events in partnership with local stakeholders, including the celebration of the Rainforest Festival in June, with a total of 960 participants. In September there was a BNF illustrated book launch for the 'Sekolah Hutan Sebangau' (Sebangau Forest School), and later in September a Friends of Sebangau workshop was held. Combined, these events included a total of 1,012 in-person participants, while our online presence reached over 114,000.

PEATLANDS PROTECTION

Integrated Fire Management: During the last 6 months, fire threat management has become a priority due to the severe El Niño event and the increased and severe fire episodes occurring across Kalimantan. The Integrated Fire Management Division has focused on building the Community team's capacity for prevention strategies, preparedness, and fire suppression within our target areas, as well as increasing effective coordination and collaboration with key stakeholders including the Sebangau National Park authorities, the Central Kalimantan Disaster Management Agency, the Forest Police, etc.

To date a total of 15 Community Patrol and Firefighting teams (MPA) operate daily across 14 villages bordering the Sebangau National Park and the Rungan Landscape. In total, BNF provides support and capacity building to a network of 15 firefighting teams (11 of them fully operational), with 191 active community members working in coordination. Community teams have been working daily since the beginning of June, with an average of 532 patrol-days for the last 6 months; and a total of 115 firefighting interventions (from May- September), with >70 hotspots tackled; 80% of them occurring between August and September. Despite the extreme and severe drought situation with hundreds of hotspots burning simultaneously in Kalimantan (mirroring the 2015 El Niño event, where 8% of the Sebangau National Park forest cover was lost due to fires), the number of fire hotspots and forest loss in the target area has reduced significantly. Although the dry season and firefighting are still ongoing at the time of writing this report, to date, we are proud to say that <500 ha of forest areas have been reported burned by Patrol and Fire-fighting teams (pending satellite imagery verification).

The GIS team is monitoring fire incidence and forest loss impacts using the NASA FIRMS and recent satellite imagery, supporting teams in the field with drone flights equipped with thermal cameras, and compiling patrol and local community reports in target intervention areas.

BNF has continued facilitating training sessions on Integrated Fire Management for the Patrol and Firefighting teams as well as holding effective coordination meetings and workshops with key stakeholders to develop an integrated and coordinated strategy (especially within the Sebangau National Park), including equipment distribution, daily operations and *Standard Operational Procedure* development.

PROJECT COMMUNICATION AND DISSEMINATION

Relevant publications and deliverables: During the last six months several deliverables and publications have been developed and launched by BNF and in partnership with key stakeholders, including:

- *Sebangau National Park Ecosystem Recovery Plan (2024-2028 RPE BTNS)* Published
- *Central Kalimantan Land and Forest Fires Contingency Plan (RENKON 2023)* Published
- *Sebangau National Park Community Empowerment Plan (RPM 2024-2028)* Published
- *BNF Reforestation Monitoring SOP.* Published
- *BNF Patrol and Firefighting Coordination SOP.* Final revision under review.
- *BNF Hydrology and Dam Building Techniques SOP.* Final revision under review.
- *BNF Habitat Reforestation Techniques SOP.* Drafted.
- *BNF Community Seedling Nurseries management SOP.* Final revision under review.
- *Peer-reviewed manuscript: Accounting for seedling performance from nursery to outplanting when reforesting degraded tropical peatlands.* Accepted in *Restoration Ecology* (early view: <https://doi.org/10.1111/rec.14041>)
- *Peer-reviewed manuscript: Impacts of fire and prospects for recovery in a tropical peat forest ecosystem.* In Review at *Proceedings of the National Academy of Sciences.*
- *Frank van Veen conducted radio interview about peat fire haze issues and solutions on Singapore's Money FM breakfast show.*
- *Frank van Veen gave seminar and took part in panel discussion on "Sustainable Kalimantan" with local government officials and academics in June at Universitas Muhammadiyah Palangka Raya.*

Related Articles in press/media: During this period there have been 20 local and 13 national articles in the Indonesian press; and 2 in the international press across various media platforms. BNF has published 6 online stories on the website. The Darwin website has been officially launched with stories and posts promoting the project initiatives.

2. Give details of any notable problems or unexpected developments/lessons learnt that the project has encountered over the last 6 months. Explain what impact these could have on the project and whether the changes will affect the budget and timetable of project activities.

Environmental conditions: 2023's extended dry season began in June and brought drought conditions, which unfortunately led to the first fires starting in August 2023. These fires are ongoing and are causing widespread disruption across Central Kalimantan, largely due to the hazardous smoke haze. Teams of emergency community firefighting teams have been working hard to protect the forest, alongside the Sebangau National Park team and government agencies.

3. Have any of these issues been discussed with NIRAS and if so, have changes been made to the original agreement?

Discussed with NIRAS:	No
Formal Change Request submitted:	No
Received confirmation of change acceptance	N/A
Change request reference if known:	N/A

4a. Please confirm your actual spend in this financial year to date (i.e. from 1 April 2023 – 30 September 2023)

Actual spend: ██████████

4b. Do you currently expect to have any significant (e.g. more than £5,000) underspend in your budget for this financial year (ending 31 March 2024)?

No

5. Are there any other issues you wish to raise relating to the project or to BCF management, monitoring, or financial procedures?

No

Please send your **completed report by email** to BCF-Reports@niras.com. The report should be between 2-3 pages maximum. **Please state your project reference number, followed by the specific fund in the header of your email message e.g. Subject: 29-001 Darwin Initiative Half Year Report**