



Conservation of Southeast Portion of North Selangor Peat Swamp Forest (Phase 2): Bukit Belata (Ext) Forest Reserve (BBEFR) and Raja Musa Forest Reserve (RMFR)

A Summary of the Semi-Annual Progress Report from October 2023 until June 2024

1. Introduction

The Global Environment Centre (GEC) successfully executed the Phase 1 Recovery Project of Bukit Belata (Extension) Forest Reserve (BBEFR) (3,140 ha) in collaboration with Prosper Capital Holdings Sdn Bhd, Selangor State Forestry Department (SSFD), and Komuniti Warisan Hutan Sungai Tengi Selatan (KWHSTS) from March 2020 to September 2023. During the Phase 1 project implementation, a range of conservation and restoration measures have been put into action, including development of a rehabilitation plan and strategies for degraded peatland areas in BBEFR, initiation of restoration process in degraded portions of Forest Compartment (FC) FC1, FC2, FC3, FC4, FC 5, FC 24, FC 25, FC 37, and FC 38, rewetting and rehabilitation of more than 244 ha of degraded peatlands in BBEFR, prevention of fires, and establishment of an informal community-based organization called KWHSTS. However, it is crucial to maintain continuous monitoring and follow-up in order to achieve optimal results in terms of conservation and rehabilitation. In consideration of this, the Phase 2 project was initiated from October 2023 to September 2026 (3 years) to continue and expand the Recovery Project by adding 4,000 ha of the adjacent Raja Musa Forest Reserve (RMFR), resulting in a cumulative recovery project area of 7,140 hectares for both phases (see **Figure 1**). The Phase 2 project will continue the implementation of the previous conservation efforts and strengthen the involvement of stakeholders and the local community in the management of priceless North Selangor Peat Swamp Forest (BBEFR and RMFR). This brief report describes the progress of the activities conducted from October 2023 until June 2024 according to the project implementation plan.

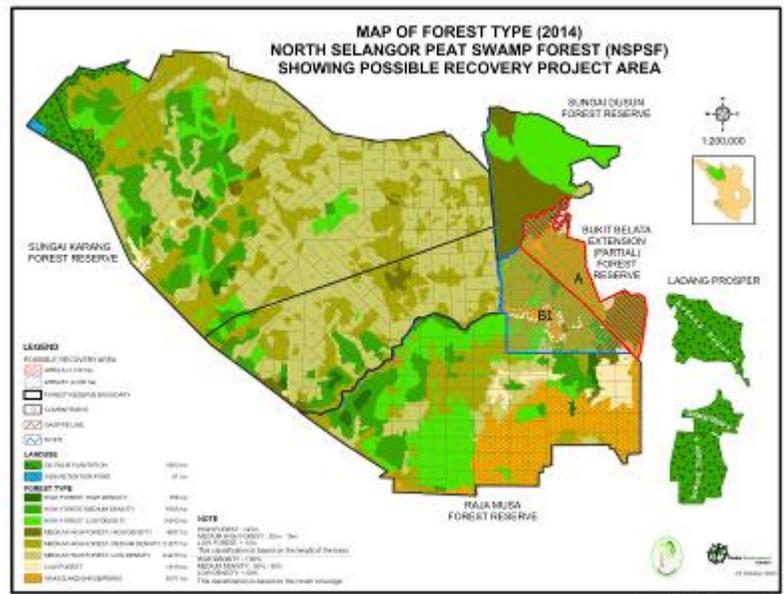


Figure 1. Phase 1 Project Site (A) and Phase 2 project site (B1+A) in relation to the location of the three nearby plantations (Ladang Tagar) partly owned by Prosper.



2. Progress of the activities according to the project implementation plan from October 2023 until June 2024

The following table outlines the progress of the activities from October 2023 until June 2024 according to the project implementation plan:

Code	Activity	Progress and accomplishment of the activities
Objective 1: To maintain and expand conservation measures for peat swamp and lowland forest at BBEFR and RMFR		
Act 1.1	Undertake appropriate assessments in the expansion area in RMFR to identify issues related to fire incidents, water management, biodiversity, etc.	<ul style="list-style-type: none"> Ground and aerial surveys have been effectively conducted, which involved assessing the current condition of the chosen rehabilitation sites of FC 23, 44 & 52, RMFR. This also included evaluation of the peat types and depth, drainage canals, hotspots, water quality of the drainage canals, and wildlife monitoring (Figure 2). Proposed rehabilitation strategies have been put forward, which include implementing tree planting with appropriate methods, constructing canal blocks, and installing piezometers and subsidence poles at FC 23, 44 & 52, RMFR to evaluate the recovery of the degraded areas.
Act 1.4	Revegetation: tree planting using pioneer and high-quality species at the degraded areas	<ul style="list-style-type: none"> Conducted inspection of the 10-hectare planting area at FC 24, BBEFR(from Phase 1), along with an evaluation of the number of surviving trees. Out of the total 6,000 trees that were planted over an area of 10 ha, 573 trees did not survive, leading to a mortality rate of 9.55% and a survival rate of 90.45% (Figure 3).
Act 1.4 & Act 3.7	Revegetation: tree planting using pioneer and high-quality species at the degraded areas (Act 1.4) & Organise tree planting event to commemorate international events (e.g. World Wetlands Day or World Environment Day) (Act 3.7)	<ul style="list-style-type: none"> A small-scale tree planting event was organized for the KWHSTS members on 26th February 2024 at Dataran Alam, Felda Sungai Tengi to restore the degraded site and engage the community in preserving BBEFR and the surrounding Felda landscapes. A total of 102 trees were planted by 15 participants, consisting of 70 <i>Melicope lunu-ankenda</i> trees, 30 <i>Syzygium sp.</i>, and two <i>Anacardium sp.</i>, marking a successful restoration effort at the location (Figure 4).
Act 1.6	Undertake regular patrolling, fire prevention and water table monitoring in the project area	<ul style="list-style-type: none"> From October 2023 to June 2024, two KWHSTS patrollers actively patrolled FC 3, FC 6, FC 7, FC 23, FC 24, and FC 25 of BBEFR and its buffer ones to detect encroachment, illegal activities, animal hunting, and peatland fires (Figure 5). They also monitored water levels weekly in forest compartments, buffer zones, and nearby oil palm plantations using six piezometers (BBT01-BBT06) to gauge peat water levels.



Code	Activity	Progress and accomplishment of the activities
Act 1.7	Repair, develop and install warning and boundary signages at high-risk areas	<ul style="list-style-type: none"> Three (3) units of Peatland Fire Risk Markers and piezometers were installed in FC 3, FC 7 and FC 25 from 5-20th February 2024 to provide the local community, patrolling officers, landowners, farmers, and relevant authorities information on the current water table conditions and associated fire and flood risks (Figure 6).
Objective 3: To enhance stakeholder engagement and integration of the Recovery Project with the broader landscape including North Selangor Peat Swamp Forest		
Act 3.1 & Act 3.2	Initiate dialogues with potential stakeholders, partners and experts on the implementation of the project activities, awareness creation activities and events (Act 3.1) & Contribute to the development and implementation of IMP for NSPSF 2024-2033 (Act 3.2)	<ul style="list-style-type: none"> Conducted five (5) key coordination meetings with SSFD and one (1) meeting with the District Forest Officer of Hulu Selangor on the implementation of Prosper project at BBEFR and RMFR for the year 2024 and development of IMP NSPSF 2024-2033. Conducted three (3) key meetings with KWHSTS along with many follow ups and informal discussions through phone calls, WhatsApp messages, and informal visits to discuss on project coordination and implementation. Conducted one (1) key meeting with the Supply Chain Members of Prosper to discuss on the key impacts of Phase 1 project and the proposed continuation and extension of the restoration efforts, including the expansion of the rehabilitation site to cover an additional 4,000 ha in RMFR in the Phase 2 project (Figure 7).
Act 3.1	Initiate dialogues with potential stakeholders, partners and experts on the implementation of the project activities, awareness creation activities and events.	<ul style="list-style-type: none"> GEC participated in a peatland exhibition during the World Environment Day 2024 celebration organized by Jabatan Kelestarian Felda at Dewan JKRR Felda, Sg. Tenggi Selatan on 4th June 2024. The exhibition aimed to showcase GEC's work and the rehabilitation efforts led by KWHSTS at BBEFR (Figure 8).
Act 3.1	Initiate dialogues with potential stakeholders, partners and experts on the implementation of the project activities, awareness creation activities and events.	<ul style="list-style-type: none"> GEC together with SSFD hosted a site visit for 44 participants from PPB Group Berhad to the Centre of Excellence (COE), FC 73, RMFR and GEC-CoSPeC on 7th March 2024. The main objective of the visit was to provide insights into the management of peat swamp forests in NSPSF and a carbon briefing on nature-based solutions (NbS) (Figure 9).
Act 3.3	Contribute to the implementation of the Central Forest Spine Secondary Linkage 2 by creating green corridors via BBEFR and RMFR	<ul style="list-style-type: none"> GEC and SSFD have developed four (4) units of signboards in bilingual (English and Malay languages) that provide information about the CFS sites, ecological linkages, wildlife, flora, and their significance to biodiversity conservation to be installed at the selected sites in Selangor by SSFD (Figure 10).

3. Pictorial report of the activities implemented from October 2023 until June 2024



Figure 2. Field assessment and surveys at FC 23, 44 and 52, Raja Musa Forest Reserve.

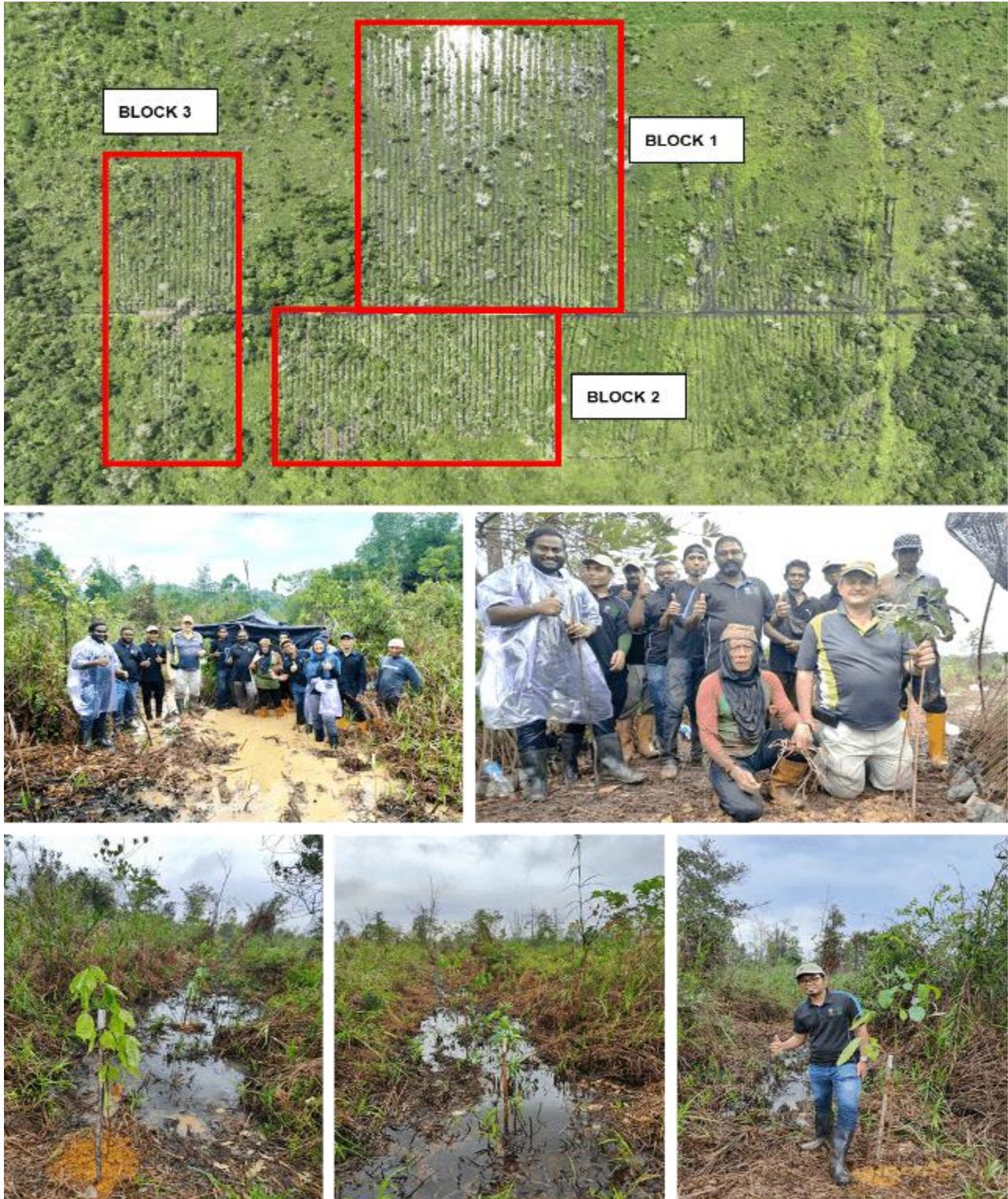


Figure 3. Inspection of the planting site at FC 24, BBEFR and the assessment of survival and mortality count of planted trees.



Figure 4. Tree planting activity with the members of KWHSTS at Dataran Alam, Felda Sungai Tengi Selatan in close proximity to BBEFR.

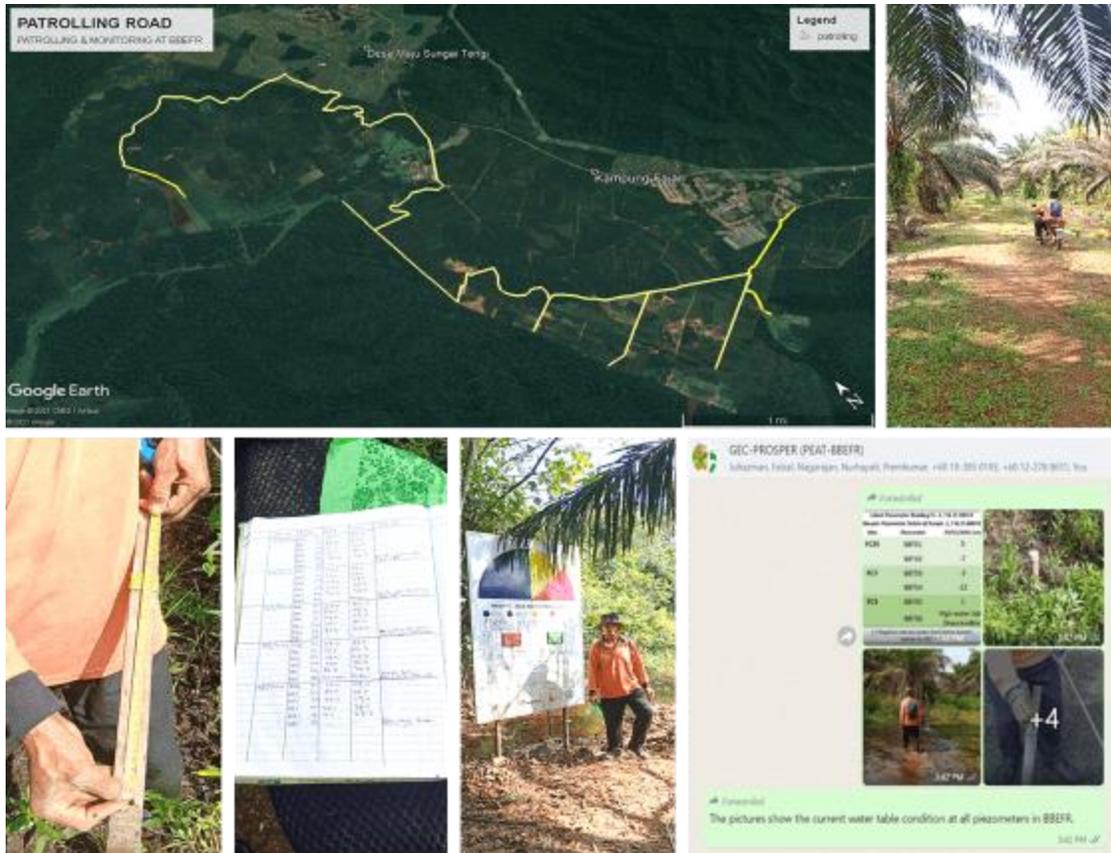


Figure 5. The patrolling of forest compartments and water table monitoring at FC 3, FC 7, and FC 25, BBEFR by the KWHSTS patrollers



Figure 6. Installation of Peatland Fire Risk Markers in FC 3, FC 7, and FC 25, BBEFR.



Figure 7. Stakeholder meetings: (A-C) SSFD; (D-E) SSFD-DFO Hulu Selangor and Pantai Klang; (F-G) KWHSTS; (H-I) Prosper's Stakeholders – Supply Chain Members.



Figure 8. GEC and KWHSTS participated in the peatland exhibition during the World Environment Day 2024 at Dewan JKRR Felda, Sg. Tengi Selatan.



Figure 9. PPB Group Berhad's Site Visit to Centre of Excellence (COE), FC 73, Raja Musa Forest Reserve (RMFR) and GEC-CoSPeC.



Figure 10. The CFS boards developed by GEC-SSFD to be installed at the forest areas by SSFD

Note: A comprehensive progress report detailing the implementation of the aforementioned activities from October 2023 until June 2024 has been prepared and submitted to Prosper. This brief report serves as a summarized version of the full progress report.