



# SEMI ANNUAL PROGRESS REPORT (JANUARY – JUNE 2023) CONSERVATION OF COASTAL FOREST AND PEATLANDS IN GUNUNG ARONG FOREST RESERVE, JOHOR

## A Brief Progress Update from January to June 2023

### 1. Introduction

The Global Environment Centre (GEC), a Malaysian non-profit organisation with expertise in forest and peatland conservation and rehabilitation is collaborating with TH Plantations Berhad (THP), a Malaysian-owned company active in the palm oil sector in Malaysia and in Indonesia. An agreement was signed between GEC and THP in June 2022 to support the conservation of coastal forests and peatlands in Gunung Arong Forest Reserve (GAFR), Johor comprises 19,966 ha. The project focuses on the long-term protection and rehabilitation of 4,300 ha in the northeast portion of the GAFR (to the east of the road between Mersing and Endau that runs through the forest). It mainly consists of the lowland forest with approximately 1,500 ha of peat swamp forest/peatland. The site has been degraded in the past due to the drainage and fire associated with earlier log extraction and road construction activities as well as plantation development in adjacent land. This report describes the progress of the activities conducted from January to June 2023 according to the project implementation plan focused on the long-term protection and rehabilitation of the northeast portion of the GAFR.

### 2. Progress of the activities according to the project implementation plan from January to June 2023

The following table below outlines the progress of the activities from January to June 2023 according to the project implementation plan which will contribute towards the achievement of the immediate objective:

No.	Activities	Implementation and progress from January to June 2023 (summary)
1	<b>Field assessment and mapping</b>	Several field assessments were conducted from January to June 2023 to collect GAFR baseline data that include peat assessment, fish survey, identification of drainage and peat area, flora and fauna survey, local community questionnaire survey, data collection from the local and state plans and other secondary references. It also covered an assessment of key issues including fire incidents and their root causes affecting biodiversity and water management in FC86, FC83, FC84 and FC103, GAFR. A fish survey has been conducted in Jan 2023 with involvement of Dr. Amiruddin Ahmad and his team from UMT partly using Co-funding from Synchronicity Earth through GEC.
2	<b>Engaging the local community for setting up the Community Based Organisation (CBO)</b>	Communication with selected community leaders has been made since February 2023. GEC successfully conducted a meeting with Ketua Kampung in several villages to explain and highlight the importance of the project in a detailed manner and secured their involvement into the project. People who involved in this meeting is Ketua Kg. Penyabong, Ketua Kg. Tenglu, Ketua Kg. Air Papan, Penghulu Mukim Endau and Penghulu Mukim Penyabong. During the meetings, we shared details regarding the project and potential for community involvement at GAFR. A WhatsApp group was created in order to share the information on FDRS updates and current environmental and climate issues related to GAFR.



3	<b>Project event launching</b>	Conducted several meetings with JSFD on the proposed project launching event and preparatory activities to be carried out for the launching event. We also conducted site survey for suitable project launching event and identified some potential area for event site in and near GAFR. Proposed options for the location include <i>Taman Eko Rimba Teluk Arong</i> ; an open area near FC 103 and the FC 84 boundary area near palm oil plantation area at Kg. Tenglu. A joint visit was made with the CEO of THP and Forestry Department to the project site and potential launching site on 11 May 2023. The final location for the launching event will be determined on June 2023 with the approval from JSFD.
4	<b>Piezometer installation (10 units)</b>	Site survey for piezometer installation location has been carried out during the field assessment on February 2023. We managed to identify some areas in GAFR and adjacent area to GAFR. To date, 10 units of piezometers have been successfully installed in the selected locations. Regular water table data collection was conducted starting from March 2023. The result was shared to stakeholders in the WhatsApp group. We still looking for several high-risk locations to be installed with the piezometers due to the need to be monitored.
5	<b>Blocking of drainage canals in the forest reserve and adjacent areas</b>	Potential locations for canal blocking have been identified during the field assessments on Feb 2023 at the adjacent area to FC 83 and 84. We managed to find a potential contractor on early May that can conduct the construction of the canal block. Canal blocking work most probably will be carried out from May to June 2023 based on the work plan that has been developed.
6	<b>Installation of Forest Reserve, forest border and buffer zone and FDRS signages in areas that have higher risk of fire and encroachment</b>	Site survey and location identification has been carried out during field assessment on Feb 2023. Location and design of forest boundary signage that need to be installed also was discussed with DFO JSFD Mersing. This is to ensure that the design follows the government standard. Signage installation work will be conducted upon confirmation by the JSFD and has been planned for July 2023.
7	<b>Community assessment and engagement for the proposed implementation of the coastal and peatland conservation programme in Gunung Arong Forest Reserve, Mersing, Johor</b>	A community baseline study was conducted to obtain the support and commitment of local residents in the implementation of Coastal Forest and Peatland Conservation in Gunung Arong Forest Reserve from February – June 2023. Community baseline survey is an important instrument for generating local community-specific knowledge about their views, interest, and perceived values surrounding the conservation and protection of Gunung Arong Forest Reserve. The perception of the conservation challenge by the local people is critical according to their attitudes and degrees of adoption of various conservation methods. In reality, their perceived values might lead to reasons for or against rehabilitation work. In accordance with this, a community baseline survey was conducted as part of this project to better understand the community knowledge about coastal and peat swamp forests, their importance, community involvement in the management of the Gunung Arong Forest Reserve (GAFR), and the social impact on the local



		community. A total of 152 respondents from 14 villages were interviewed which consist of 100 male respondents and 52 female respondents, interviewed using a questionnaire survey to obtain information regarding their perception on the protection and conservation of Gunung Arong Forest Reserve.
8	<b>Engaging local communities in patrolling, fire prevention and rehabilitation</b>	Meetings with local community leaders have been conducted since February 2023. Ketua Kg. Penyabong gave permission to do the community questionnaire survey in Kg. Penyabong, Kg. Sisek and Kg. Tanjung Resang. Meeting with selected Ketua Kg. have been conducted in April 2023 to explain the project detail and the involvement of the community in the project. Kg. Penyabong, Kg. Air Papan, and Kg. Tenglu 6 have been selected due to the proximity of the area to GAFR. In May 2023 a local staff was hired to help in the monitoring and patrolling work in GAFR.
9	<b>Meetings and site visits by Tabung Haji Plantation. Johor State Forestry Department and GEC to Gunung Arong Forest Reserve</b>	Several visits and meetings were held to obtain approval and understand the implementation of this project in GAFR and the surrounding areas with the involvement of the local community and other stakeholders. A formal meeting was held with the Director of the State Forestry Department and key staff to discuss the project progress and plans in February 2023. The Chief Executive Officer of Tabung Haji Plantation and his team together with GEC & JSFD have held a meeting on 11 May 2023 regarding the project implementation plan carried out by GEC with support from JSFD.
10	<b>Forest fire patrolling and monitoring</b>	Forest fire patrolling and monitoring activities have been carried out by GEC & JSFD. To ensure that no fires occur within the project site, GAFR and adjacent areas, high-risk and fire-prone peatland areas are constantly monitored and controlled, mostly during the dry season (including southwest monsoon and inter-monsoon). This activity also ensures that if a fire incident is detected, prompt action can be taken to extinguish it, preventing further spread and damage to the project site, GAFR and adjacent areas. 3 WhatsApp groups were formed to discuss this matter in detail and sharing the daily FDRS warnings.

### 3. Pictorial report of the activities implemented from January - June 2023

**Table 2:** The following pictorial updates of the progress of the activities from January to June 2023 according to the project implementation plan:

No.	Activities	Picture	
1.	<p>Rapid survey has been carried out since January to June 2023 on peat assessment, identification of drainage and peat area with assistants from JSFD Rangers, indirectly conducting a training to the rangers on peat swamp as well as briefing the Johor State Forestry Department officers on targeted area and possible route for tracking to identify the peat formation in, GAFR.</p>		



2. Fish survey has been conducted in Jan 2023 with involvement of Dr. Amiruddin Ahmad and his team from UMT. GEC successfully collected two endangered sp. of fighting (Gourami) fish which is *Betta tomi* and *Betta tussyae* which indicates that the area is very important to be protected as it is the habitat of endangered fish species.





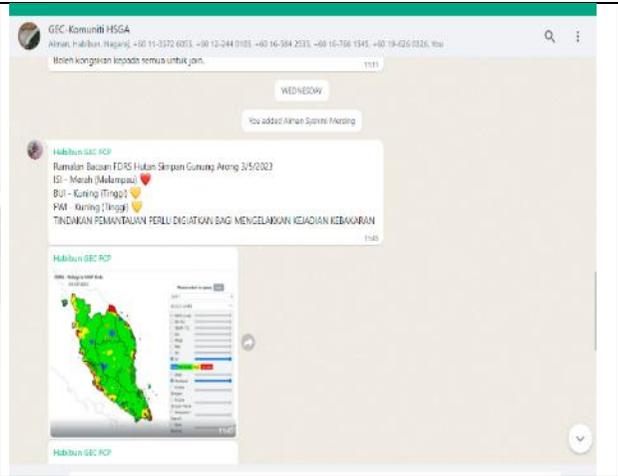
<p>3. A total 4 camera traps have been installed in Gunung Arong Forest Reserve. Then, data analysis was done based on the identified images of wildlife recorded by the camera. The images of wildlife captured by using camera trap was classified into species level after detailed characteristics. These species are barking deer, greater mouse deer, Malayan sunbear, southern pig-tailed macaque, Malayan porcupine, yellow-throated marten and short-tailed mongoose.</p>	 
<p>4. A total of 10 piezometers were successfully installed in identified locations which is in FC 103, adjacent area of FC 84, 83 and smallholder palm oil plantation area and recording of piezometer water reading has been conducted.</p>	 



<p>5. A community baseline study was conducted to obtain the support and commitment of local residents in the implementation of Coastal Forest and Peatland Conservation in Gunung Arong Forest Reserve from February – May 2023. A total of 152 respondents from 14 villages were interviewed which consist of 100 male respondents and 52 female respondents, interviewed using a questionnaire survey to obtain information regarding their perception on the protection and conservation of Gunung Arong Forest Reserve</p>			



6. A kick-start meeting to introduce GEC's initiative in GAFR was conducted together with the community representatives, Penghulu Mukim Padang Endau and Ketua Kampung Kg Penyabong and Tenglu on April-June 2023.



7. Several site visits were conducted at JSFD Mersing staff quarters which was proposed to be given to GEC as project field office and staff house. Strategic location in the middle of Mersing town. The repairing work has been started in May 2023.





8. Meeting with JSFD and site visit with the Director of Johor State Forestry Department (JSFD) in February 2023 (left).

Meeting and site visit of the Chief Executive Officer of Tabung Haji Plantation and his team together with GEC & JSFD on 11 May 2023 (right).





#### **4. Challenges and problems encountered during the implementation period (January - June 2023)**

##### **i. Irregular weather and monsoon changes**

The unpredictable weather pattern and rainy days are the major challenge experienced by the survey team. However, the assessments were carried out successfully in February to June 2023. The rainy conditions caused disruptions in scheduled field work, continuous measurements, monitoring of field conditions, photography, etc. since the cameras could not be used in rainy days, therefore resulting in blurry pictures. Hot and dry weather in April and May also increased the risk of peatland degradation and fires.

##### **ii. Establishment of temporary field office/house for staff**

GEC has rented a homestay for temporary base from March 2023 until now. This rental will end when the renovation of JSFD quarters is complete. The Director of JSFD, Dato' Hj. Salim Bin Aman has given written approval to use JSFD quarters in Mersing from 2023 to 2030 as part of their contribution to this project. This agreement also comes with a conditional agreement where GEC is responsible for the repair and maintenance work that needs to be done inside the building and the cleaning of the outside areas.

##### **iii. Impact of El Nino and awareness to prevent forests fire**

El Nino can have various effects on weather patterns in Malaysia, depending on the severity and duration of the event. Generally, during an El Nino event, Malaysia tends to experience drier and hotter conditions than usual. It is crucial to inform the community and stakeholders to prevent open burning and remind the villagers to avoid open burning activity especially people who live near to the forest area. Regular monitoring in GAFR area is very crucial during this season especially near to plantation and paddy field area as these areas are quite active with human activities which may practice open burning. In order to avoid any incident of forests fire, awareness messages about El Nino have been communicated via WhatsApp, including daily update on FDRS and regular piezometer water level reading in GAFR.