Our Environmental Stewardship

> Conservation area at Bukit Belian Estate.

Biodiversity & Conservation

Why It Matters

Safeguarding local ecosystems and their biodiversity is essential to maintain environmental balance and promoting sustainable development.

As an industry player, we have a responsibility to minimise our impact on habitats in the vicinity of our operations and their surrounding ecosystems.

Our Approach

Preserving Riparian Reserves

Riparian reserves are crucial conservation areas that lie between land and rivers, providing habitats for a wide variety of plants and animals. Their protection is also crucial to maintaining soil health and water quality in surrounding areas.

We have established buffer zones and riparian reserves within our plantations, covering 597.85 ha. Additionally, we use legume cover crops ("LCCs") within our reserves to prevent soil erosion, control weeds and enhance the fertility of the soil, further strengthening these important areas.

During FY2024, we focused on maintaining and preserving our riparian reserves in line with MSPO requirements, striving to be seen as a positive example for environmental protection within our industry.

Riparian reserve at Ladang Gunung Sumalayang, Kluang Johor.

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Conducting Environmental Impact Assessments

Before starting any replanting exercise, we carry out thorough Environmental Impact Assessments in line with Malaysian Department of Environment ("DOE") requirements, using independent third-party consultants.

Key factors considered in the EIAs include:

1. Soil erosion, slope stability and soil conditions.
2. Water and noise pollution.
3. Loss of flora, fauna and their habitats.
4. Waste disposal.
5. Impacts of replanting and abandoned land.
6. Socioeconomic and ecological effects.
7. Safety and health concerns.
8. Peat soil subsidence.

The results of these assessments are reported to the DOE, ensuring all considerations are accounted for before replanting begins. Decisions on replanting are influenced by the age of the palms (yields drop below 15 MT/ha for palms over 25 years old), palm height (harvesting becomes difficult for palms over 45 feet) and areas where soil quality has degraded due to flooding or root diseases.

Managing Our Peatlands

We cultivate only on peatland designated by the Malaysian government for agricultural development, adhering to strict guidelines to ensure sustainable use.

Recognising the fragile nature of peatland, we adhere to specific processes to ensure responsible development. Our Agronomy team provides valuable technical and advisory support here, focusing on practices that maintain water levels at optimal ranges and drain excess water to prevent peat degradation. These measures are essential for preserving the long-term health and productivity of the land.

By the end of FY 2024, we owned 44,749.27 ha of peatland, of which 14,924.84 ha was unplanted and contributed to biodiversity and conservation areas.

Integrated Pest Management

Pest management is an essential aspect of oil palm cultivation, ensuring healthy yields and protecting plantations from damage. To balance this necessity with our conservation efforts, we prioritise IPM strategies that minimise chemical usage. Our approach focuses on incorporating bio-pesticides and bio-control agents, tailored to the specific needs of each estate, to effectively manage pests while supporting environmental sustainability.

Our efforts include:

1. Using *Tyto alba*, commonly referred to as barn owls, to control rat populations.
2. Shredding felled trunks into chips of acceptable size to suppress the breeding of rhinoceros beetles.
3. Planting beneficial plants that provide shelter and food for predators and parasitoids of the pest.
4. Using *Bacillus thuringiensis*, a soil-dwelling bacterium, against insect pests such as *Tirathaba rufivena* and bagworm larvae.

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Restoration Programme in Gunung Arong Forest Reserve, Mersing, Johor

In FY2024, we made significant progress on our initiative to restore the vital coastal forest and peatland ecosystems of GAFR in Mersing, Johor.

- **8 canal blocks were constructed** in FY2024.
- **11 Piezometers were installed**. Regular patrollings and data recordings were undertaken to monitor fire risk levels, with a low water table reading indicating that the peatland is getting dry and a higher risk of fire.
- **Establishment of community forest fire patrollers** in GAFR, who have played a crucial role in preventing fires in GAFR. The team conducts patrols and monitors the GAFR area four times per week.
- **Installed 8 forestry enactment signages, 4 FDRS signages, and 3 Peatland Fire Risk Markers** with piezometers at GAFR to enforce regulations and provide early fire risk warnings with real-time groundwater level data.

Installed 8 forestry enactment signages, 4 FDRS signages and 3 Peatland Fire Risk Markers.

Established a community of forest fire patrollers.

- Wildlife monitoring in GAFRC using **camera traps** confirmed active wildlife presence, emphasising its role as a sanctuary for local species.
- **Planted 1,600 trees** with local communities in FY2024, moving towards the 4,600-tree goal.
- **Organised an expedition to assess GAFR's peat swamp, freshwater swamp, and mangrove forests,** involving 137 researchers from universities, government, and NGOs.

Wildlife monitoring in GAFRC using camera traps.

An expedition to assess GAFR'S peat swamp, freshwater swamp and mangrove forests.

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- **Established a nursery** producing over 3,000 trees for planting in degraded areas. Local communities also visited Raja Musa Forest Reserve and Pulau Tanjung Surat to learn about peatland conservation.
- Promoted GAFR through events such as Ocean Conservation Workshop in Mersing, Independence Day Exhibitions at Kg. Padang Endau and Kg. Semaloi, and Mersing International Conservation Day, showcasing initiatives such as peatland rehabilitation, water table monitoring, and fire prevention.
- Management team and key stakeholders **visited GAFR** to align efforts, monitor progress, and share insights.
- Trained local communities and smallholders on best oil palm practices for peat soil.

Ocean Conservation Workshop in Mersing to promote GAFR.

Management team and key stakeholders visited GAFR.

Training for local communities and smallholders.

Overall, our activities for GAFR in FY2024 have largely been implemented as planned, achieving significant successes in rehabilitation and conservation. Key accomplishments include the installation of fire risk signage, the establishment of a community nursery, and increased local engagement, while the growing involvement of local community members reflects their strong interest and commitment.

Biodiversity & High Conservation Value ("HCV") Training: Strengthening Sustainability

In FY2024, we conducted a HCV training session at Ladang Sungai Tenegang, Lahad Datu, Sabah. The programme brought together participants from across our oil palm estates in the Sabah region, as well as local smallholders from Lahad Datu.

The training provided participants with a deeper understanding of the latest HCV guidelines under the MSPO certification framework, emphasising the importance of biodiversity conservation in plantation operations. It emphasised the critical role of biodiversity conservation in plantation management, equipping participants to integrate these principles into their daily operations while ensuring alignment with our Sustainability Policy. The programme also included field activities, such as biodiversity assessments within plantation areas, to provide hands-on experience.

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This training not only strengthened the capabilities of our staff but also empowered local smallholders to adopt responsible practices, in line with our efforts to promote sustainability across the Malaysian palm oil industry.

Session on HCV identification and monitoring in oil palm plantation.

Guidelines for Biodiversity-Friendly Plantation Workshop

In FY2024, the second "Guidelines for Biodiversity-Friendly Plantation" workshop was held in Royal Belum State Park, Perak, as part of an effort to develop a comprehensive manual for biodiversity-friendly plantation practices. A collaboration between government agencies, local universities and NGOs, the workshop focused on refining guidelines to promote biodiversity conservation while ensuring sustainable plantation management. It highlighted the importance of collaboration among stakeholders, including communities, researchers, and conservation groups, to create solutions that benefit both the environment and local livelihoods.

Exploring Biodiversity: The participants exploring the Royal Belum Forest to study ecosystems, assess conservation areas, and observe local flora and fauna in their natural habitat.

Supporting Coexistence with Elephants

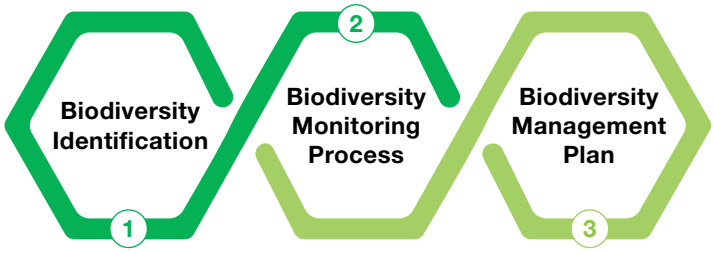
We have furthered our efforts to support harmonious coexistence with wildlife by collaborating with local NGOs and other plantation companies in Johor. Under this coalition, we were involved in workshops, meetings and discussions aimed at unearthing collaborative and sustainable solutions for better human-elephant interactions in the state.

To enhance these efforts, four camera traps have been installed at our estate in Kluang, Johor, to monitor elephant movements and document other wildlife species. These tools provide valuable insights into wildlife behaviour, helping us to develop more effective conservation strategies.

A focus group discussion addressing the elephant situation in Johor, emphasising conservation efforts, habitat management, and human-wildlife coexistence strategies.

Biodiversity Risk Assessments

In FY2024, all of our estates underwent internal biodiversity risk assessments to ensure compliance with MSPO standards. The assessment process, which is carried out annually, is conducted by the operations team of each estate, who also lead in identifying, monitoring and managing biodiversity risks.



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Based on the assessments conducted, over 1,500 ha of land has been designated as protected areas within our estates. These areas serve as habitats for around 40 plant and animal species, identified according to the International Union for Conservation of Nature (IUCN) Red List of Threatened Species and detailed below.

Identified Species	NE (Not Evaluated)	DD (Deficient Deficient)	LC (Least Concern)	NT (Near Threatened)	VU (Vulnerable)	EN (Endangered)	CR (Critically Endangered)	CO (Collapsed)
Fauna								
1. Sumatran Rhinocheros							●	
2. Banteng						●		
3. Asian Elephant						●		
4. Orang Utan						●		
5. Sambar Deer					●			
6. Sun Bear					●			
7. Clouded Leopard					●			
8. Bearded Pig					●			
9. Crocodylus Porosus						●		
10. Dogania Sublpana						●		
11. Macacafascicularis						●		
12. Amaurornis Phoenicurus						●		
13. Copsychus Malabaricus						●		
14. Pythyhton Reticulatus						●		
15. Varanus Salvator						●		
16. Ayuthia Spectabile						●		
17. Ceyxazureus						●		
18. Acridotheres Tristis						●		
19. Cuculidae						●		
20. Paradoxurus Hermaphroditus						●		

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Fauna (cont'd)								
21. Limnonectes Malesianus						●		
22. Hylarana Erythraea						●		
23. Pomponia Adusta						●		
24. Hymenopus Coronatus						●		
25. Phaenopharos Struthioneus						●		
26. Coturnix						●		
27. Tragulus Javanicus						●		
28. Ophiophagus						●		
29. Malayemys Macrocephala						●		
Flora								
30. Caryota No			●					
31. Cycas				●				
32. Zingiberaceae				●				
33. Nenga Spp				●				
34. Nepenthaceae				●				
35. Cymbidium Orchid				●				
36. Bird's Nest Fern				●				
37. Shores Teysmanniana						●		
38. Cengal						●		
39. Belian					●			
40. Keruing					●			
41. Senduduk						●		