



**GERAK
SAGA**

MONITORING REPORT

PUBLIC SUMMARY

Jan 2021 - Dec 2021



Bengkoka and Tambalugu Class II Forest Reserves

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INTRODUCTION

GERAK SAGA SDN. BHD.



- 100 year Sustainable Forest Management License Agreement ('SFMLA') with the Government of the State of Sabah
- The SFMLA is to develop an Industrial Tree Plantation on 6,467 ha of land located on the Bengkoka Peninsula
- The project lies on the northern tip of the island of Borneo, Pitas district, State of Sabah, Malaysia
- Gerak Saga Sdn. Bhd. (GSSB) undertakes, inter-alia, the extraction of residual timber, establishment of a managed forest plantation and restoration of natural forest areas
- Scheduled to plant 5,800 ha of Eucalyptus and Acacia species by the year 2023
- Harvesting is based on a ten year rotation cycle
- Will yield 100,000m³ per annum of plantation timber

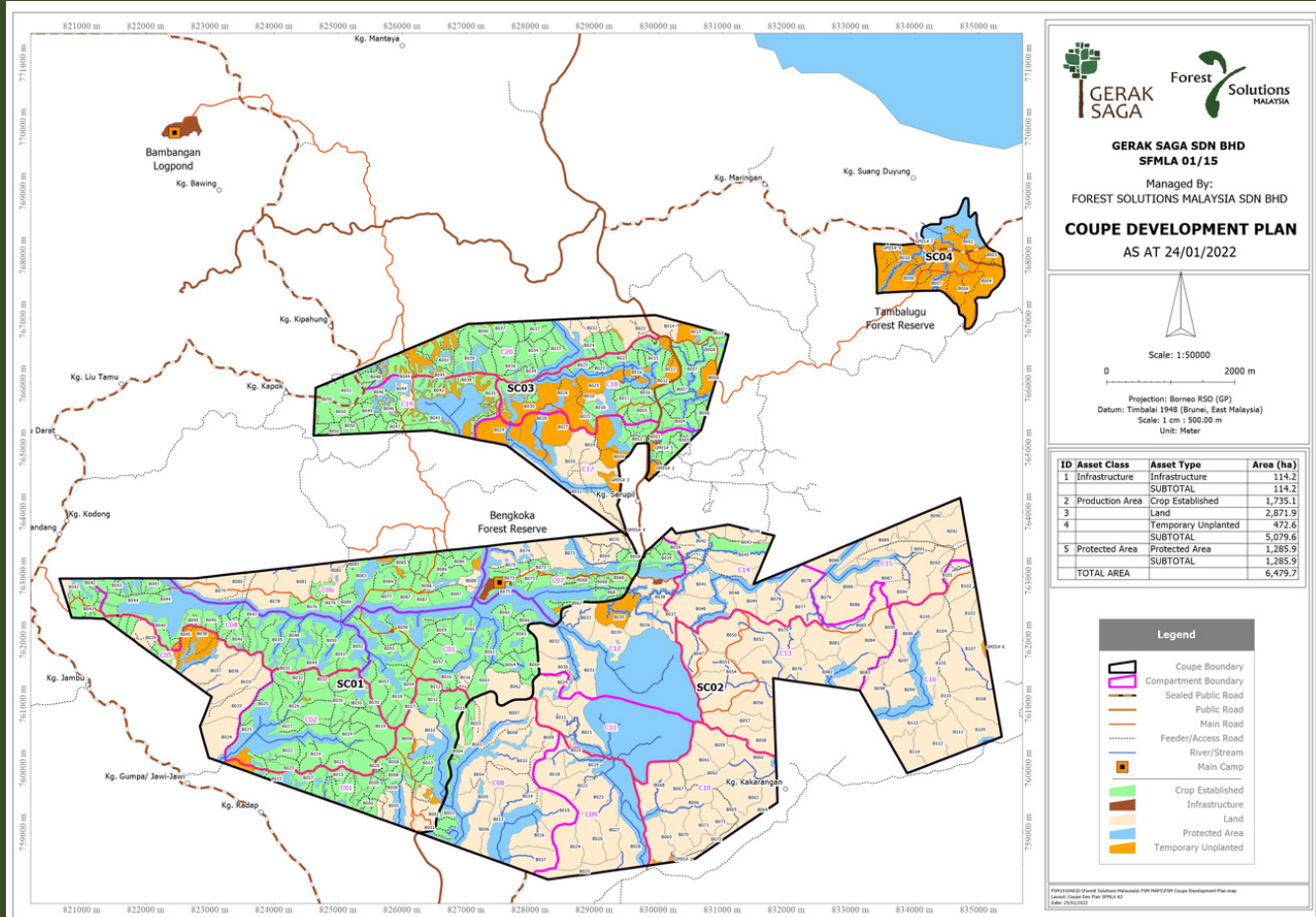
The GSSB operations are managed by Forest Solutions Malaysia Sdn. Bhd. (FSM) which currently employs over a hundred employees. FSM has a pool of local and foreign professional foresters with an established track record in sustainable forest management and greenfield startups. FSM value their people as the most important assets and empower them by providing training and a development platform with a conducive learning environment to equip them with the technical and managerial know-how, combined with exposure for best performance.

Technical courses attended by staff includes planting and harvesting techniques, chemical handling, fire-fighting, first-aid, proper use of equipment and machinery, satellite imaging and nursery setup. Contractors are also given training and demonstrations on the operations related skills. FSM operate within a rigorous planning, production and auditing process, supported by GPS-based forest mapping and an integrated web-based forest management system.

GSSB recognizes that a successful and sustainable future for Borneo's timber industry resides ultimately in the productivity and the quality of it's plantations. GSSB carries out research and development programs covering subjects such as tree breeding, silviculture, pest and disease management and solid wood quality assessments. The tree breeding trials established are converted to seed orchards for commercial seed production.

GERAK SAGA

PLANTATION MAP



Gerak Saga Sdn. Bhd. Tree Plantation Area is located in Bengkoka Peninsula, the northern part of Borneo Island in Pitas District, Sabah.

1. FSC Criterion 10.1: Results of regeneration activities

GSSB implements ongoing monitoring of plantation growth for continuous evaluation of tree and stand growth through Permanent Sample Plot (PSP) data collection on a yearly basis. Continuous evaluation of tree and stand growth allows forest managers to schedule silviculture interventions or harvesting. This information allows management to make decisions regarding long term strategy and for improving the growth performance and quality output of the plantation.

GSSB is in early stage of PSP and tree inventory assessment as the operation establishment started in 2018. Currently, GSSB has twenty-one (21) PSP established in the field of which eighteen of them are *Eucalyptus pellita* and two (2) *Acacia crassiparva* and one (1) *Eucalyptus urophylla* x *grandis* (hybrid).

Table 1: List of Permanent Sample Plot (PSP)

Asset No.	Age	PSP No.	Plot Area (Ha)	Species	Spacing	Soil Type	Plot Shape	Date Planted
SC01B051-CRP011	3.0	1	0.045	ACRA	3x2	Maliau	Circular	03/04/2018
SC01B035-CRP007	3.1	2	0.045	EPEL	3x3	Maliau	Circular	10/03/2018
SC03B036-CRP058	2.4	4	0.045	EPEL	3x2	Brantian	Circular	18/12/2018
SC03B049-CRP052	2.5	3	0.045	ACRA	3x2	Brantian	Circular	01/11/2018
SC03B043-CRP057	2.3	5	0.045	EPEL	3x2	Brantian	Circular	22/12/2018
SC01B016-CRP122	1.4	6	0.045	EHYB	3x2	Maliau	Circular	30/12/2019
SC01B026-CRP110	1.3	9	0.045	EPEL	3x2	Maliau	Circular	20/12/2019
SC01B058-CRP090	1.5	12	0.045	EPEL	3x2	Maliau	Circular	17/11/2019
SC03B045-CRP074	1.9	18	0.045	EPEL	3x2	Brantian	Circular	23/06/2019
SC03B042-CRP061	2.3	19	0.045	EPEL	3x2	Brantian	Circular	08/01/2019
SC03B035-CRP067	2.1	20	0.045	EPEL	3x2	Brantian	Circular	04/04/2019
SC03B037-CRP069	2.1	21	0.045	EPEL	3x2	Brantian	Circular	07/04/2019
SC01B019-CRP078	1.6	10	0.045	EPEL	3x2	Maliau	Circular	14/10/2019
SC01B023-CRP070	1.7	7	0.045	EPEL	3x2	Maliau	Circular	22/09/2019
SC01B021-CRP094	1.5	8	0.045	EPEL	3x2	Maliau	Circular	25/11/2019
SC01B053-CRP067	1.7	11	0.045	EPEL	3x2	Maliau	Circular	12/09/2019
SC01B059-CRP088	1.6	13	0.045	EPEL	3x2	Maliau	Circular	01/11/2019
SC01B011-CRP113	1.4	14	0.045	EPEL	3x2	Maliau	Circular	24/12/2019
SC01B020-CRP081	1.6	16	0.045	EPEL	3x2	Maliau	Circular	23/10/2019
SC01B087-CRP144	1.2	17	0.045	EPEL	3x2	Maliau	Circular	28/05/2020
SC01B064-CRP119	1.6	15	0.045	EPEL	3x2	Maliau	Circular	24/12/2019



ENVIRONMENTAL IMPACTS CONTINUED

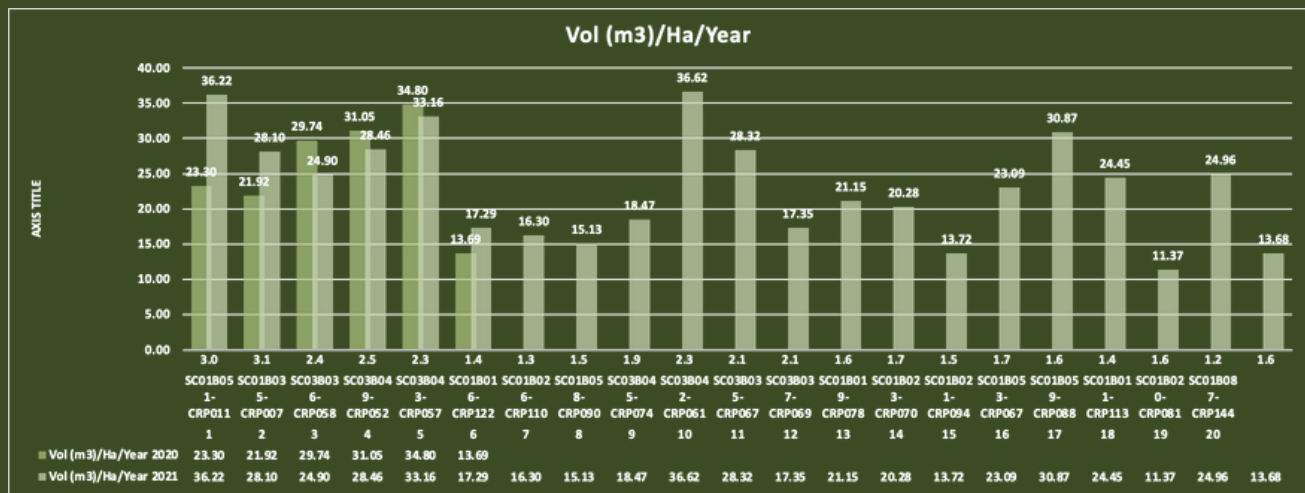


Figure 1: Volume (m3)/Ha

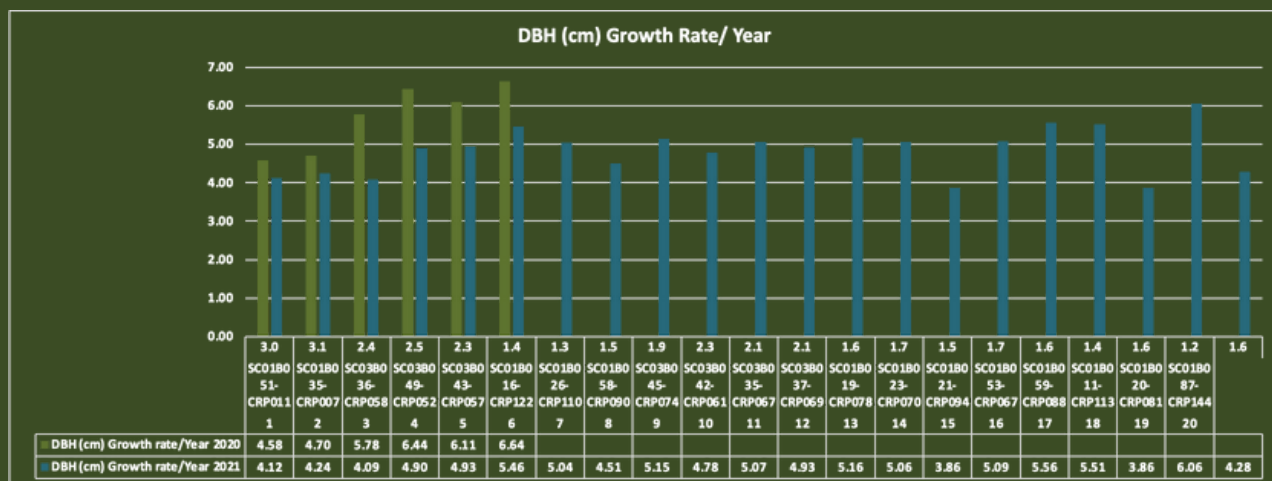


Figure 2: DBH (cm) Growth Rate/Year

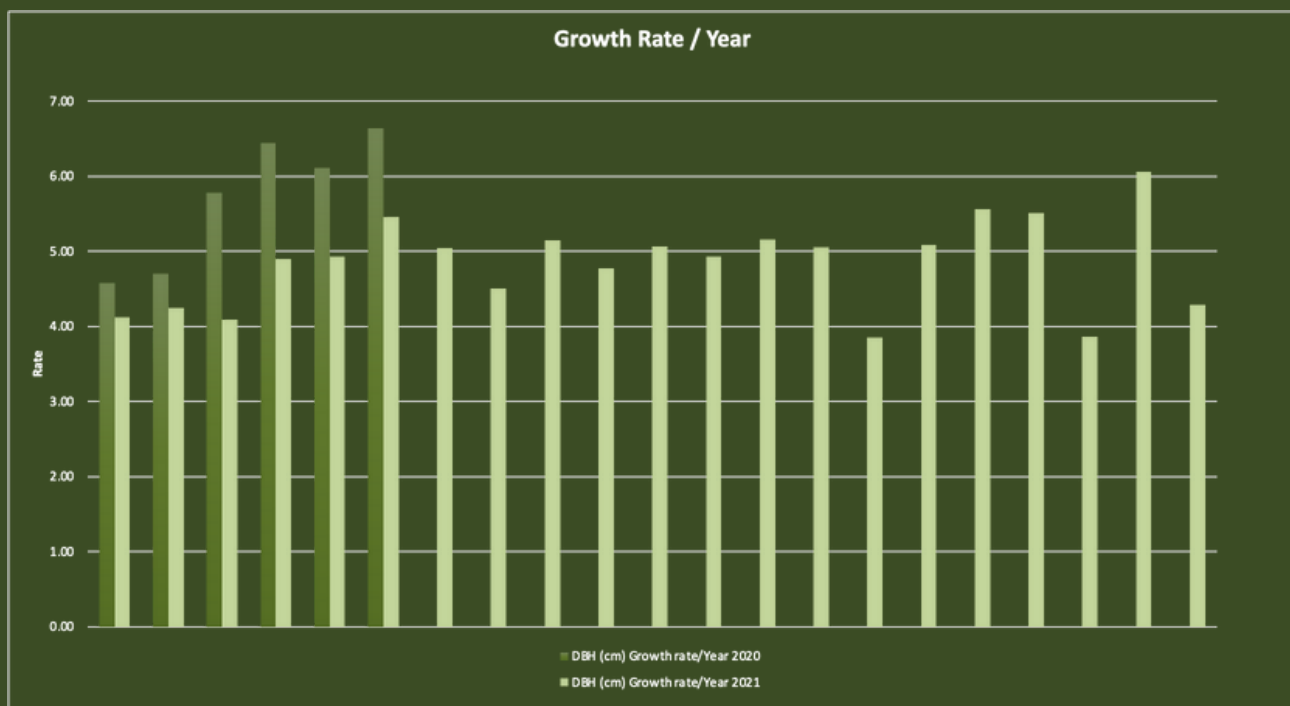


Figure 3: Establishment Activities Jan - Dec 2021

ENVIRONMENTAL IMPACTS CONTINUED

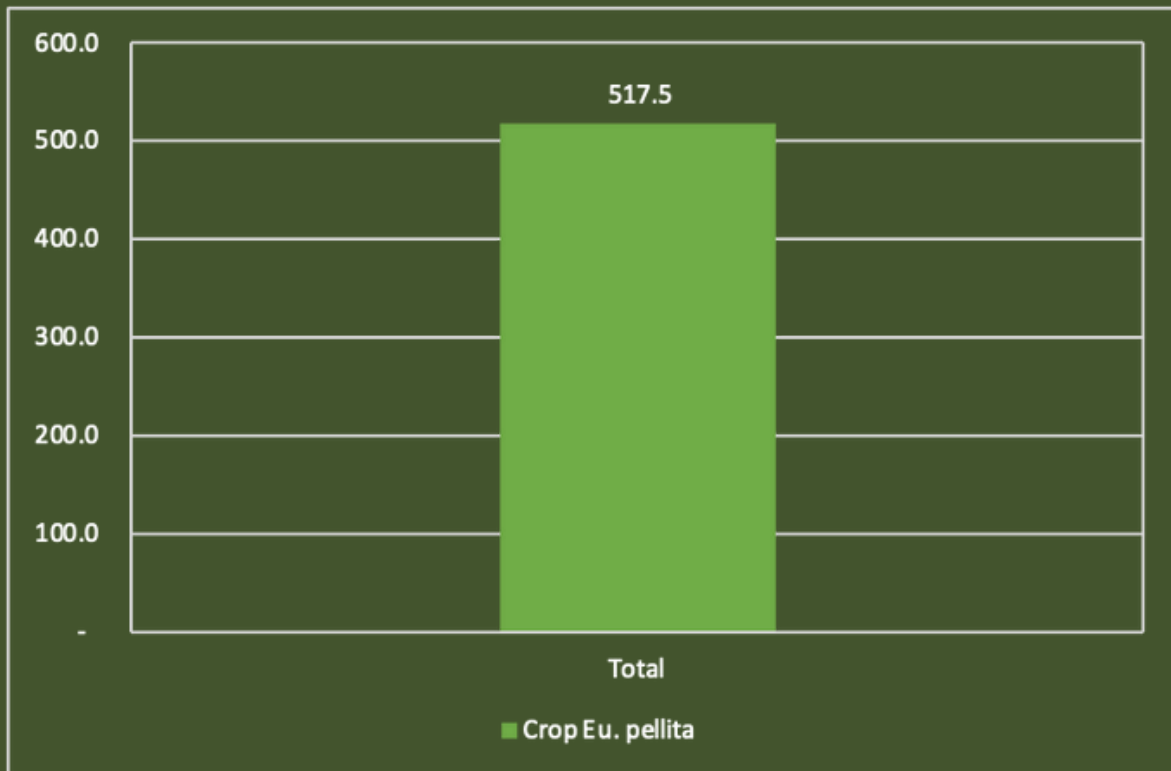


Figure 4: Crop planted by species Jan - Dec 2021

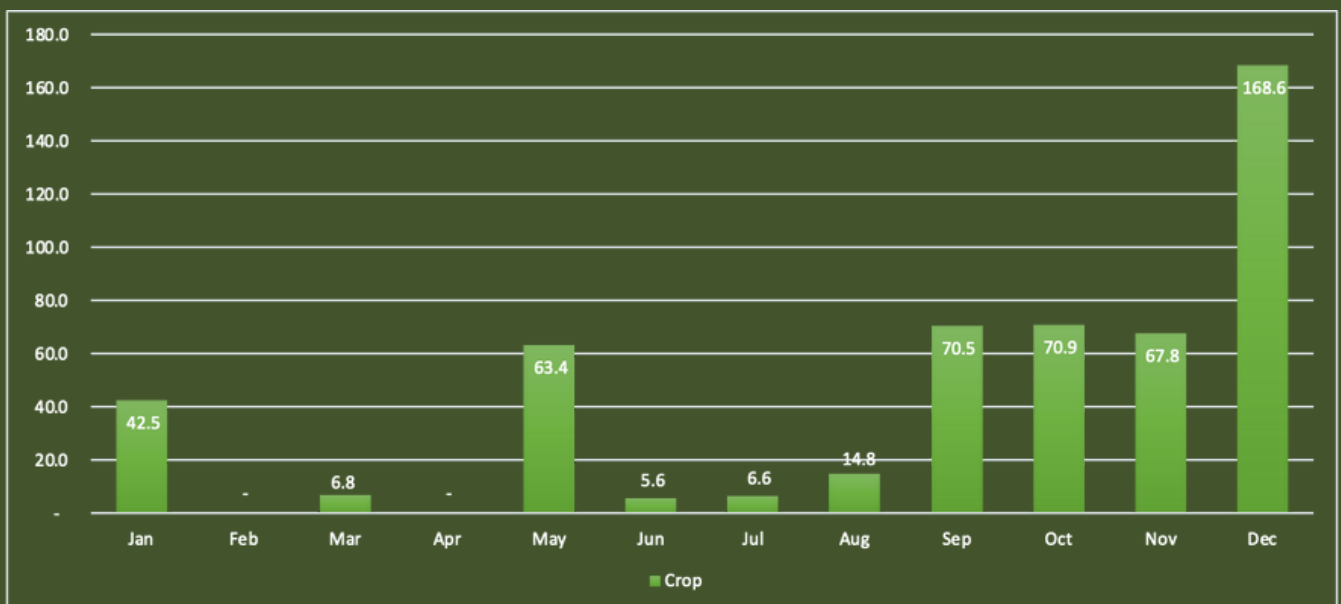


Figure 5: Crops planted by month from Jan - Dec 2021



2. FSC Criterion 10.2: Use of ecologically well adapted species for regeneration

In line with the GSSB site conditions, *Eucalyptus pellita* (main species) and *Acacia crassicaarpa* (marginal species) were selected for commercial plantation species due to site tolerance and fast growth. Species trials were established prior to the start of the operation, where 20 different plantation tree species were tested and *Acacia crassicaarpa* and *Eucalyptus pellita* were amongst the top performers. Species trials and PSPs are monitored every year to assess performance.

3. FSC Criterion 10.3: Invasiveness or other adverse impacts associated with any alien species within and outside the FMU

To date there is currently no recorded invasiveness or other adverse impacts associated with the species planted on GSSB plantations.

The following actions have been taken to prevent such situations occurring;

- Seed movement and storage records
- Phytosanitary certification application prior to importing and exporting seeds
- Seedling dispatch record from the nursery
- Mapping of species allocation in the plantation sites
- Boundaries checking/patrolling by survey department

4. FSC Criterion 10.5: Results of silviculture activities

All current silviculture practices are ecologically appropriate for the vegetation, species, sites and management objectives. There are no negative impacts recorded from silviculture practices during the period under review.

5. FSC Criterion 10.6: Adverse impacts to environmental values from fertilizers

Environmental monitoring and water sampling are conducted every 4 months to ensure compliance with the Environmental Quality Act 1974. All parameters during the current period were below the National Water Quality Standard of Malaysia. A fertilizer application standard operation procedure is in place and revised annually. Fertilizer is only applied once during planting. The Quality Control (QC) team conduct verification on planting quality including the correct fertilizer application.

6. FSC Criterion 10.7: Adverse impacts from the use of pesticides

Environmental monitoring and water sampling are conducted every 4 months to ensure compliance with the Environmental Quality Act 1974. All parameters to check water quality were below the National Water Quality Standard of Malaysia. ESRA has been conducted, training and safety precautions when handling chemical pesticides are implemented to comply with the Occupational Safety and Health Act 1994.

7. FSC Criterion 10.8: Adverse impacts from the use of biological control agents

Biological control agents were not used.

8. FSC Criterion 10.9: The impacts from natural hazards

No natural hazards recorded during the period under review.

9. FSC Criterion 10.10: The impacts of infrastructural development, transport activities and silviculture to RTE, habitats, ecosystems, landscape values water and soils

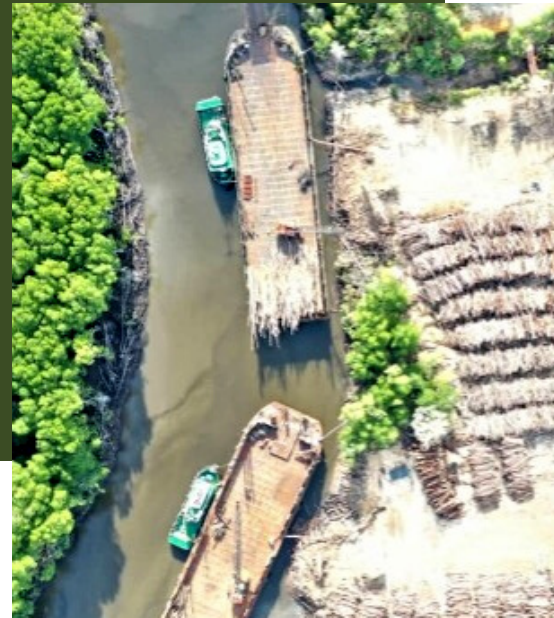
Environmental monitoring and audits are conducted by a third-party every 4 months against the Approved Environmental Conditions (AEC) to ensure compliance with the Environmental Quality Act 1974 and the report is submitted to the Environmental Protection Department (EPD) Sabah.

10. FSC Criterion 10.11: The impacts of harvesting and extraction of timber on non-timber forest products, environmental values, merchantable wood waste and other products and services

The harvesting is done in line with a set of policies and procedures. Environmental monitoring and audit are conducted against the Approved Environmental Conditions (AEC) by a third-party every 4 months to ensure compliance with the Environmental Quality Act 1974 and the report is submitted to the Environmental Protection Department (EPD) Sabah. In addition, GSSB has an independent department to conduct quality control on the operations.

11. FSC Criterion 10.12: Environmentally appropriate disposal of waste materials

All waste has been disposed of in line with legal requirements, and as required by the company's policies and procedures. Negative impacts related to this were not observed and we have not received reports or complaints from stakeholders in this regard under the period of review.



12. FSC Criterion 1.4: Evidence of illegal or unauthorized activities

Any illegal or unauthorized activity is identified through patrolling. Any information gathered during patrolling is captured for our record and further action. This year, twenty-eight (28) patrolling activities have been conducted.

Table 2: Patrolling Schedule 2020 and Achievement Jan - Dec 2021

No	Activities	Coupe	Target	Unit	Achievement 2021					
					Q1	Q2	Q3	Q4	Total	%
3.0	Boundary Patrolling									
3.1	Along the main road in Coupe 1, 2, 3 & 4 reachable by vehicle.	All Coupes	16	No.	4	10	2	2	18	113%
3.2	Along the common boundary for Coupe 1,2,3 & 4. This can be carried out during common boundary re-brushing activities.	All Coupes	-	No.	-	1	1	1	3	0%
3.3	Along the main road from Bongkol junction - Kg. Gumpa - Kg. Kapok.	SC1, SC3	-	No.	-	1	-	1	2	0%
3.4	Along the main road from Bongkol junction - Kg. Bongkol - Kg. Kakarangan.	SC2	4	No.	2	2	-	1	5	125%
	TOTAL		20		6	14	3	5	28	140%

13. FSC Criterion 1.5: Compliance with applicable laws, local laws, ratified international conventions and obligatory codes of practice

GSSB has policies and procedures to ensure all applicable laws, ratified international conventions and obligatory codes of practice are adhered to through regular training, toolbox talks and compliance assessment involving all operations.



14. FSC Criterion 1.6, 2.6 and 4.6: Resolution of disputes and grievances

Table 3: Record to date of the Grievance Management Information System (GMIS)

No	Coupe	Village	Status
1	2	Kakaranagan	Open
2	3	Sorupil	Open
3	3	Sorupil	Open
4	3	Sorupil	Open
5	3	Sorupil	Open
6	2	Pagasaon	Open
7	4	Suang Duyung	Open
8	2	Sorupil	Open
9	4	Suang Duyung	Open
10	4	Suang Duyung	Open
11	4	Suang Duyung	Open



15. FSC Criterion 2.1: Programs and activities regarding workers' rights

Workers' rights are protected in line with national legislation and the requirements of the Human Resources and associated policies.

16. FSC Criterion 2.2: Gender equality, sexual harassment and gender discrimination

GSSB has policies and procedures to promote gender equality, and has mechanisms for reporting and eliminating sexual harassment and discrimination based on gender.

17. FSC Criterion 2.3: Programs and activities regarding Occupational Safety and Health (OSH)

GSSB has prepared and is implementing the occupational safety and health policies and procedures to comply with local and international law such as Occupational Safety and Health Act 1994 and International Labour Organization (ILO).



Figure 6: Gerak Saga safety statistics

During the period under review, one (1) lost time injuries recorded, three (3) non-lost time injuries, fifteen (15) non-lost time accident involved damage to the property, one (1) near miss, one (1) calamity-flood, one (1) fire incident and two (2) malaria cases.

18. FSC Criterion 2.4: Payment of wages

All wages are paid within the agreed timelines, and meet or exceed minimum requirements.

19. FSC Criterion 2.5: Worker Training

Analysis of training requirements is carried by the management which is fed into the training plans that are implemented. This year, one-hundred eighty-five (185) internal training modules has been conducted and six (6) external training has been attended.

20. FSC Criterion 2.5 and 10.7: Where pesticides are used, the health of workers exposed to pesticides

GSSB operations do not use chemical pesticides which are listed in the FSC List of Highly Hazardous Chemical Pesticides. In addition, only trained personnel with appropriate personal protective equipment (PPE) are permitted to handle and utilize pesticides in the field. Negative effects on workers are yet to be observed or recorded.

21. FSC Criterion 3.1 and 4.1: The identification of indigenous peoples and local communities and their legal and customary rights

GSSB conducts Social Impact Assessments (SIA) to determine the effect of operations on communities and finds effective ways to mitigate relevant issues with FPIC as the desirable outcome. Thirteen (13) villages within close proximity to GSSB concession have been identified and the identification of legal and customary right is being monitored during community engagement.

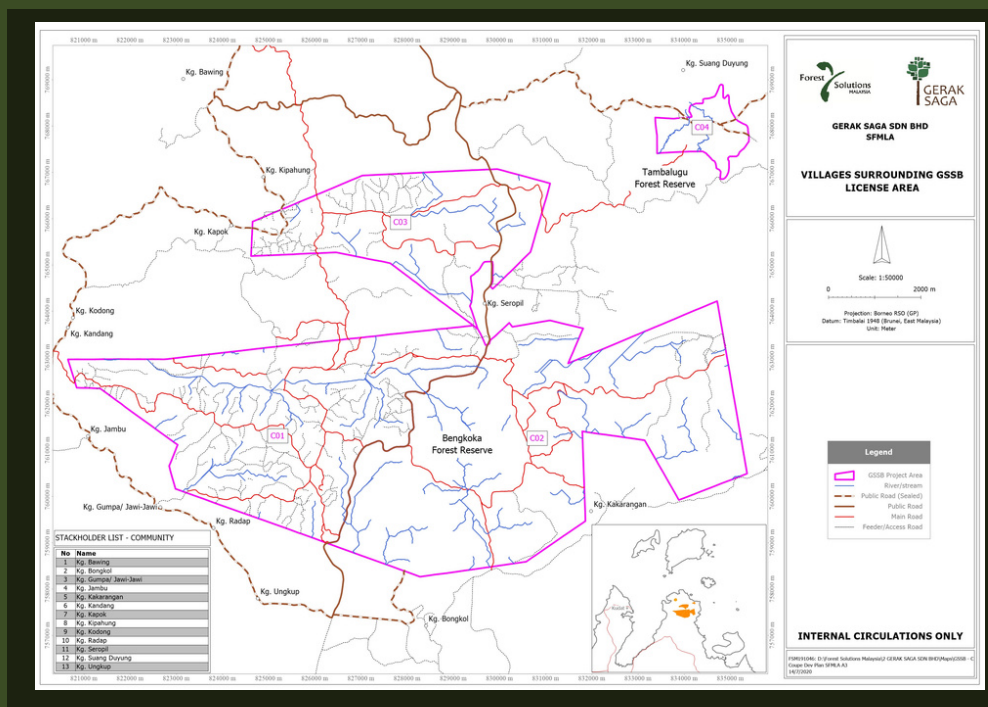


Figure 7: Map showing the 13 villages within close proximity to Gerak Saga concession boundary.

22. FSC Criterion 3.2 and 4.2: Full implementation of the terms in binding agreements

No agreement was entered into under both criterions.

23. FSC Criterion 3.2, 3.3 and 4.2: Indigenous Peoples and community relations

GSSB conducts regular and ongoing engagement with communities in close proximity to the plantation to encourage sustainable dialogue and improve relations.



Figure 8: Gerak Saga's community engagement strategies

24. FSC Criterion 3.5 and 4.7: Protection of sites of special cultural, ecological, economic, religious or spiritual significance to Indi. Peoples and local communities

Two (2) graveyards were identified in 2016, the claimant was consulted and joint marking was done on the ground. The area has been excised with a 50-meter buffer. Since then, the area of the graveyard was regularly monitored and the boundary is re-painted based on the monitoring schedule.

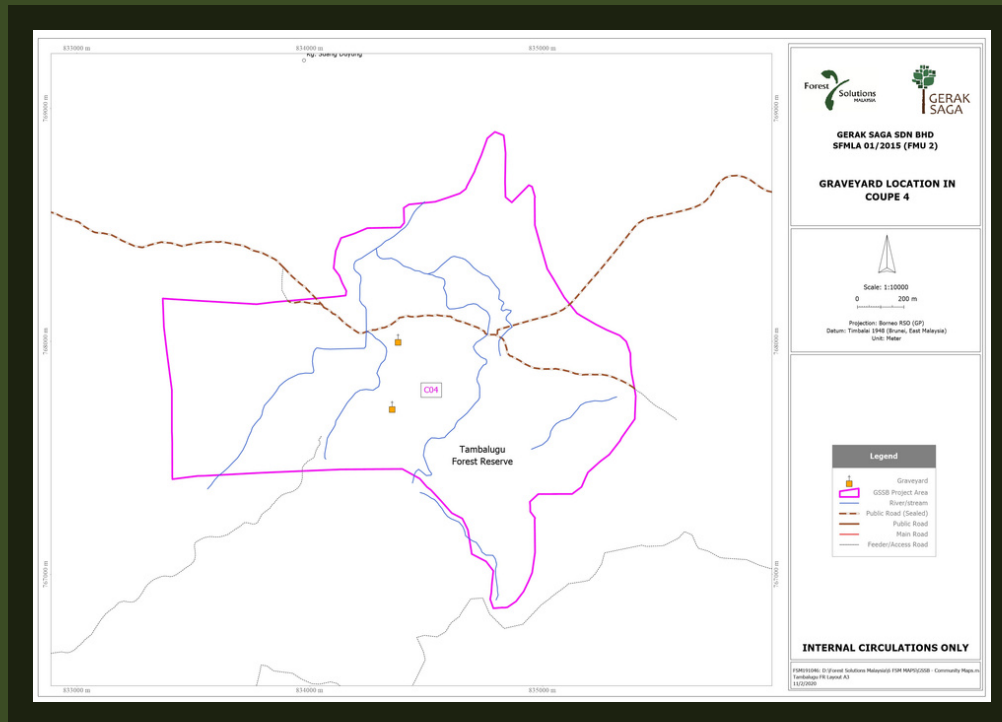


Figure 9: Map showing the location of the demarcated graveyard of Kampung Suang Duyung in Coupe 4, Tambalugu Forest Reserve.

25. FSC Criterion 3.6 and 4.8: The use of traditional knowledge and intellectual property

GSSB does not use traditional knowledge in the operation.

26. FSC Criterion 4.2, 4.3, 4.4 and 4.5: Local economic and social development

Through the community engagement, GSSB had continuously conducted identification, implementation and monitoring of beneficial community projects ensuring the sustainable improvement of livelihoods. One of such projects was completed in Kg Suang Duyung whereby the water and sanitation projects had impacted over 400 lives in the village. Another example can be seen via the company's commitment in recruiting locals as field workers. This initiative provides opportunities for the locals to improve their economic well being while being part of Gerak Saga's mission.

27. FSC Criterion 5.1: The production of diversified benefits and/or products

GSSB is constantly assessing the potential of new and diversified products, markets and benefits.

28. FSC Criterion 5.1: The maintenance and/or enhancement of ecosystem services

GSSB has implemented the protection of ecosystem services and enhancement through restoration activities in stages. Regular monitoring and assessment to ensure the protection of the ecosystem services and restoration activities which are allocated annually through the 30-year rehabilitation plan.

29. FSC Criterion 5.1: Activities to maintain or enhance ecosystem services

GSSB is implementing protection of ecosystem services and enhancement through restoration activities in stages. Protection by regular monitoring and assessment to ensure the protection of the ecosystem services and restoration activities allocated annually through the 30-year rehabilitation plan.

30. FSC Criterion 5.2: Actual compared to projected annual harvests of timber and NTFP

GSSB achievements have been affected when the Movement Control Order (MCO) was enforced in March 2020 and continued until third quarter of 2021 due to the COVID-19 outbreak. However, the Annual Work Plan (AWP) is followed, monitored and revised. GSSB is only harvesting Acacia species.

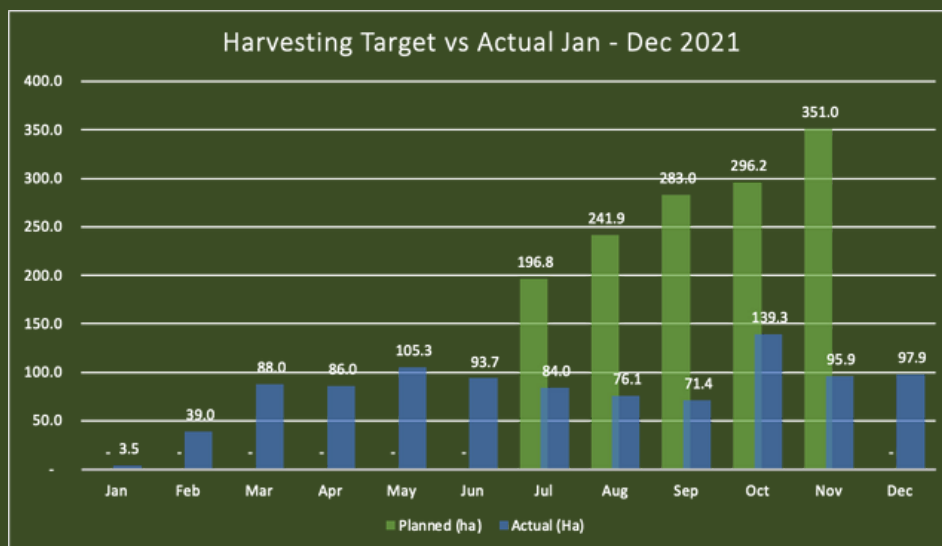


Figure 10: Actual vs planned harvesting target Jan- Dec 2021

31. FSC Criterion 5.4: The use of local processing, local services and local value added manufacturing

The suppliers of services are mainly local, allowing the company to effectively contribute to the growth of the local economy.

32. FSC Criterion 5.5: Long-term economic viability

These can be available on request, with confidential information removed, at the cost of production.

33. Criterion 9.1: HCV 5 and 6 identified in Criterion 9.1

Graveyards belong to the local community in Kampung Suang Duyung located in Coupe 4 (Tambalugu Forest Reserve). The graveyards have been identified, joint marking on the ground by our team and the community with a 50-meter buffer and indicated in the coupe development plan map. Maintenance and repainting of the boundary are conducted based on the monitoring schedule of our survey crew.

34. FSC Criterion 5.2: The maintenance and/or enhancement of ecosystem services (when the Organization makes FSC promotional claims regarding the provision of ecosystem services, or receives payment for the provision of ecosystem services)

Not applicable.

35. FSC Criterion 6.1 and 6.3: Environmental values and ecosystem functions including carbon sequestration and storage; including the effectiveness of actions identified and implemented to prevent, mitigate and repair negative impacts to environmental values

Where negative impacts are identified, these are prevented, mitigated or repaired as appropriate.

36. FSC Criterion 6.4: Rare, threatened and endangered (RTE) species and the effectiveness of actions implemented to protect them and their habitats

The rare, threatened and endangered species on plantation are identified and their habitats are protected.

37. FSC Criterion 6.5: Representatives sample areas and the effectiveness of actions implemented to conserve and/or restore them

The rehabilitation and/or restoration plan works through various treatments such as enrichment planting, silviculture treatment, and removal of undesirable plant species in the degraded protection areas are still in the early stage of planning and implementation.

38. FSC Criterion 6.6: Naturally occurring native species and biological diversity and the effectiveness of actions implemented to conserve and/or restore them

In GSSB, only Acacia species were harvested and most of the remaining native plant communities are available in the protection areas. Restoration activities are planned and implemented on site to maintain and enhance the biological diversity. In addition, the company has a standard operating procedures to protect the identified biological diversity within the licensed area.

39. FSC Criterion 6.7: Water courses, water bodies, water quantity and water quality and the effectiveness of actions implemented to conserve and/or restore them

Water monitoring as required by the government is carried out accordingly every 4 months, led by a third-party environmental consultant.

40. FSC Criterion 6.8 Landscape values and the effectiveness of actions implemented to maintain and/ or restore them

Landscape values including a provision for the linking to off-site conservation areas is included in the conservation 30-year rehabilitation plan.

41. FSC Criterion 6.9: Conversion of natural forest to plantations or conversion to non-forest

Not applicable.

42. FSC Criterion 6.10: The status of plantations established after 1994

There was no evidence of conversion found.

43. HCV 1 to 4 identified in Criterion 9.1 and the effectiveness of actions implemented to maintain and/or enhance them

HCV 1 and 4 are present in the project area which is the diversity of species and the ecosystem services. Monitoring activities are conducted annually for HCV 1 and at least three (3) times a year to monitor HCV 4 through an internal and external audit or monitoring. At the same time, the patrolling activity also implemented on a monthly basis to monitor and reduce the identified threats.

- END -