New Planting Procedure - Summary of Integrated Management Plan

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Reference to the management unit management plan	SIA Report 2022; EIA Report; Integrated HCV-HCS Report Satisfactory on November 2021
Name(s) of estate(s) covered under this management plan:	PT Lestari Gemilang Intisawit

Guidance Notes:

This summary management plan shall indicate at a minimum but not be limited to the following:

- Key findings of the various assessments (e.g., potential minor environment and/or social risk requiring mitigation actions; total conservation areas).
- Key mitigation and monitoring regime, covering both the environmental and social aspects.
- Evidence of FPIC and key agreements with local communities (if any).

- An action plan describing operational actions consequent to the findings of the various assessments, referencing the grower's relevant operational procedures.
- Designation of the management team and responsible person for the implementation.

1. EIA

Table 1. Management & Monitoring Plan of EIA

No	Activities	Impact	Source of Impact	Location	Environment Management		Environment Monitoring	
					Plan	Period	Plan	Period
	Pre-Construction Stage							
1	Socialization	Restless, attitudes and perception, also social conflict between companies and communities	Ignorance and misinformation the public against the company's plans in development of oil palm plantations	• Nanga Tayap Village • Kayong Hulu Village • North Kayong Village • Tajuk Kayong Village • Betenung Village	• Boundary area with a removal of conflict area or give the compensation and make a partnership • Meeting directly with the communities to socialize the oil palm plantation development • Give information related with the activity plan by regular meetings in the village • Explain the environmental management efforts that will be carried out • Explain the positive impact to the communities through oil palm plantations • Form SATLAK team and work with TP3K team Ketapang Regency, also community institutions when socializing to communities	Socialization the development of oil palm plantation carried out at least 4 months before the opening of the land. And during the preconstruction stage	Direct observation and interviews with the surrounding community by using questionnaires and extensive interviews	Every 6 month
2	Land Acquisition	Advent of Negative attitudes and perceptions of society, community dissatisfaction with land compensation, also rise of social conflicts between companies and communities	Process of land acquisition and compensation are harmful to society	• Nanga Tayap Village • Kayong Hulu Village • North Kayong Village • Tajuk Kayong Village • Betenung Village	• Take inventory of public lands contained in the project area along with regency officials, district, and village • Meetings related to the completion of land • Carry out the land acquisition process and compensations according to the agreement • Enclave of existing no permissions if the community don't want to exempt land	During the process of land acquisitions	Direct observation and interviews with the surrounding community by using questionnaires and deep interviews	Every 6 month

					• Documentation of all land acquisition activity			
	Construction Stage							
1	Recruitment	Rise of negative attitudes and perceptions, social conflict and social resentment	Recruitment process without transparency, and do not give priority to local employment, although according with the qualification	• Nanga Tayap Village • Kayong Hulu Village • North Kayong Village • Tajuk Kayong Village • Betenung Village	• Provide broad information to the public regarding recruitment • Priority to local employment with the necessary qualifications	During the recruitment process	Direct observation and interviews with the surrounding community by using questionnaires and extensive interviews	Every 6 month
2	Mobilization of equipment and materials	Increased of road damage and accidents	Process of transporting equipment and materials during the construction phase	• Along the road of transport equipment and materials	• Collaborate with traffic police to watch over and manage traffic flow during the mobilization of heavy equipment • Using the standard trucks according road capacity to carry the materials • Reduce speed when passing through residential areas	During the process of equipment and materials mobilization	Recording work accident at the time of the mobilization of equipment and materials activities	Every 6 month
		Decreased air quality and increased noise		• Alt1 (Mendauk Hamlet)= 1° 31' 54,10"LS - 110° 33' 12,60"BT) • Alt2 (Sikembar Hamlet)= 1° 28' 34,47"LS - 110° 34' 00,72"BT) • Engkadin Hammlet= 1° 33' 06,393"LS - 110° 39' 39,77'BT) • Tanjung Asam Hamlet= 1° 34' 30,40"LS - 110° 36' 46,17" BT)	• Selection system, method and technology land clearing so it can reduce the rate of dust and noise • regulate the speed of the vehicle at the work site • socialization to the workers to always use PPE • organize cheap medicine to the society, especially for patients with air quality and noise diseases	Once every 3 months during the construction stage	- Recording the air and noise quality, analyse measurement results and develop improvement plans - Reporting to the related agencies	Every 6 month

3	Open and land clearing	• Smog haze due to fires	• Lax of the employee who was involved in the clearance when using fire	• Cleared areas	• Land clearing without burning • Put a signboard on fire-prone lands and warning signs to be cautious in the use of fire • Provide the facilities and infrastructure of fire emergency response • Make the water ponds around the plantation as a source of water to extinguish fire in case of fire hazard	Once every 3 months during the land clearing process	- Recorded the occurrence of fire - Researching the cause of the fire source	Every 3 month
		• Increased erosion rate	• Changes inland cover so the rainwater directly on the soil surface	• LGI1= 1° 35' 32,16"LS - 110° 36' 47,46"BT • LGI2= 1° 31' 58,09"LS - 110° 31' 49,79"BT • LGI3= 1° 34' 06,55"LS - 110° 36' 42,47"BT • LGI4= 1° 31' 14,70"LS - 110° 35' 03,68"BT • LGI5= 1° 29' 20,76"LS - 110° 34' 23,68"BT	• Cover crop treatments	during the land clearing	- Making level measurement instrument measuring erosion and erosion rates - Sampling properties of the physical properties and chemical analysis	Every 6 month
		• Increased flow of runoff	More solid ground due to opening and development of land, so made lack of water infiltration into the soil	• Downstream of Kayong River= 1° 33' 52,99"LS - 110° 31' 14,90"BT • Downstream of mill project 1 (Kayong River) = 1° 32' 50,48"LS - 110° 32' 41,36"BT • Outlet Mill Project1= 1° 32' 16,807"LS - 110° 32' 56,73"BT • Upstream of Kayong River= 1° 31' 59,72"LS -	• Makes and maintain protected areas such as riparian belt • Soil and water conservation • no logging of vegetation on conservation site • and protected areas • makes sedimentary trap • cooperate with agencies that deal with environmental problems and conservation • socialization to communities	Once every 3 months during the land clearing	- Making level measurement instrument - To monitor water quality and analysis of results	Every 6 month

				110° 33' 40,65"BT • Tayap River= 1° 31' 07,46"LS - 110° 35' 33,73"BT • Upstream Mill Project2= 1° 33' 26,09"LS - 110° 36' 03,78"BT • Outlet Mill Project2= 1° 34' 01,15"LS - 110° 36' 49,38"BT • Demit River= 1° 36' 55,62"LS - 110° 37' 55,49"BT				
		Rate of work accident	Plantations and mill operations	• PT LGI Area	• Socialization to all workers and communities about regulations of safety and health also about work safety • Put signboards about safe and secure work and traffic signs along the plantation area • Training and building safety culture within workplace • Up board safety and health organization (P2K3) and cooperating with relevant institutions such as clinics or hospitals and Labour Agencies • provide PPE for workers and corporate guests	During plantation and mill are operated	- Recording work accident in every part of operational activities - Reporting - Develop a Safety and Health Monitoring System	Every 6 month
4	Nursery	Occurrence of eutrophication due to entrainment of partial fertilizer that' s not absorbed by the rain to the river	Use of manure that doesn't comply with the dosage and timing of manuring	• Nursery Areas	• Research the needs of optimum manure • Provide the right dosage of manure, a measure, quantity and timing • Make the Manuring Procedure • Socialized to the nursery workers about a good and right manuring system	Twice a year during the Manuring activity	Sampling properties of the physical properties and chemical analysis	Every 6 Month

5	Construction of Plantation Infrastructure	Open up the job opportunities	Labour requirements for the construction and supply of building materials	• Location of plantation development	• Open up the employment opportunities for local communities • Partnership with the local community in the supply of food • Open opportunities to local communities especially people with carpentry building skills	Once a year during the plantation development process	counting the number of villagers who are involved directly or indirectly	Every 1 year
6	Immature Plant maintenance	Occurrence of eutrophication due to entrainment of partial fertilizer that's not absorbed by the rain to the river. And water pollution due to use of pesticides that incompatible with the dosage	Use of manure and pesticides that aren't in accordance with the dosage and timing	• Plantation Areas	• Research the needs of optimum manure and needs for pesticides for integrated pest control • Provide the right dosage of manure, a measure, quantity, and timing • Implement the integrated pest control • Make the Manuring and Usage of Pesticides Procedure • Socialized to the workers about a good and right manuring and pest control system • Conduct biological pest control	Twice a year during the Manuring activity	Sampling and measurement of water quality in the Mirah River	Every 6 month
	Operational Stage							
1	Mature Plant Maintenance	Occurrence of eutrophication due to entrainment of partial fertilizer that s not absorbed by the rain to the river. And water pollution due to use of pesticides that incompatible with the dosage	Use of manure and pesticides that aren't in accordance with the dosage and timing	• Plantation Areas	• Research the needs of optimum manure and needs for pesticides for integrated pest control • Provide the right dosage of manure, a measure, quantity and timing • Implement the integrated pest control • Make the Manuring and Usage of Pesticides Procedure • Socialized to the workers about a good and right manuring and pest control system • Conduct biological pest control	Twice a year during the Manuring activity	Sampling and measurement of water quality in the Mirah River	Every 6 month
2	FFB Transport	Increased number of work accidents	FFB transportation activity	• Plantation Areas	• Maintaining damaged roads which dangerous for FFB trucks • Provide traffic signs in the plantation areas • Socialized to the workers and FFB transport contractors	Every 3 month	Recording and analyzing workplace accidents	Every 6 month

					• Use nets in a truck so FFB not fall			
3	FFB processing into a CPO	Decreased air quality and increased noise		• Alt1 (Mendauk Hamlet)= 1° 31' 54,10"LS - 110° 33' 12,60"BT) • Alt2 (Sikembar Hamlet)= 1° 28' 34,47"LS - 110° 34' 00,72"BT) • Engkadin Hammlet= 1° 33' 06,393"LS - 110° 39' 39,77'BT) • Tanjung Asam Hamlet= 1° 34' 30,40"LS - 110° 36' 46,17" BT)	• socialization to the workers and the activity around to always use PPE • exhaust emissions combustion technology with a chimney • complement chimney with holes for measuring of air quality emissions, measuring instruments, wind speed and ladder safety • sprinkling road periodically • tree planting to control dust	Once every 3 month and reporting once every 6 months during the operational	- Recording the air and noise quality, analyse measurement results and develop improvement plans - Reporting to the related agencies	Every 6 month
		Decreased of water quality	FFB and Mill waste	• A1= 1° 33' 52,99"S - 110° 31' 14,90"E • A2= 1° 32' 50,48"S - 110° 32' 41,36"E • A3= 1° 32' 16,07"S - 110° 32' 56,73"E • A4= 1° 31' 59,72"S - 110° 33' 40,65"E • A5= 1° 31' 07,46"S - 110° 35' 33,73"E • A6= 1° 33' 26,09"S - 110° 36' 03,78"E • A7= 1° 34' 01,15"S - 110° 36' 49,38"E • A8= 1° 36' 55,62"S - 110° 37' 55,49"E	• strictly manage the disposal of liquid waste • intensive management of pollutant sources • management of water resources in river • soil and water conservation • socialization to communities	once every 6 months during the operational	- Recording the water quality, analyse measurement results and develop improvement plans - Reporting to the related agencies	Every 6 month

				• A9= 1° 33' 05,00"S - 110° 40' 08,10"E • A10= 1° 27' 11,28"S - 110° 34' 21,69"E				

2. SIA

Table 2. Management & Monitoring Plan of SIA

No.	Affected Components	Issue	Strategy	Activity	Output	Frequency	Timeline	PIC
1	Labor Sector	Job Opportunities for community's around	Local employee quantity monitoring	a. Work with Muspika, community leaders, traditional leaders, labor offices to socialize open recruitment of workers b. Recruiting local communitiesas company workers in accordance with the skills required by the company and the competencies that the community has c. Disseminate job vacancies information to every village assisted by the company.	a. Data of local workers who work at PT. Lestari Gemilang Intisawit b. Employee performance achievement document	a. Employment socialization is carried out about every 6 months b. Recruitment of employees is carried out about once a year	2022 and continuous	HRD, Training Centre
2		Employee knowledge and understanding of labor regulations	Increasing employee knowledge and understanding of labor regulations	a. Work with Muspika, community leaders, traditional leaders, labor offices to socialize open recruitment of workers b. Make a schedule of socialization of labor rules to employees c. Making a pocketbook of labor regulations	a. Data of local workers who work at PT. Lestari Gemilang Intisawit b. The communities have a good understanding about labor regulations	a. Employment socialization is carried out about every 6 months b. Recruitment of employees is carried out about once per year c. Providing Pocketbook of company regulation, EHS guideline will be	2022 and continuous	HRD, Training Centre, Sustainability

						carried out once per 2 years		
3		Improve employee health and safety working culture	Employee safety monitoring	a. Carry out periodically training about EHS b. Providing a booklet related to EHS	a. Increased employee awareness of work safety b. Decrease the rate of work accidents c. EHS Pocketbook	a. Regularly EHS training every 6 months b. EHS guideline pocketbook once every 2 years	2022 and continuous	HRD, Training Centre, Sustainability
4		Facilities for Personal Protective Equipment (PPE)	Monitoring the use of Employee Personal Protective Equipment	a. Make an evaluation and improvement plan for PPE procurement b. Socialization about the importance of using PPE c. hecking the availability of PPE in accordance with the plan and needs, including for backup d. Conduct socialization activities and inspections on the use of PPE & provide sanctions for violators	a. Increased employee awareness of work safety b. Decrease the rate of work accidents	a. Monitoring and inspection of the use of PPE will be carried out every 3 months b. Provision of PPE in accordance with the lifetime of PPE, can be given more quickly if there is damage (minimum once every 6 months)	2022 and continuous	HRD, Warehouse, Sustainability, Operational
5		Emplacement facilities	Monitoring of employee emplacement facilities	a. Carry out regular check and monitoring of employee emplacement facilities and quality b. Fulfill emplacement needs and improve the quality of emplacement for employees c. Increase electricity supply for water pumps according to company policy	Increment of positive perception from the employee and increase employee retention	Meetings with employees are held every 3 months	2022 and continuous	Operational, Support Department, Civil Engineering
7		Work infrastructure facilities	Monitoring of employee work infrastructure	a. Meet the needs of work support equipment and improve the quality of office equipment and supplies b. Carry out regular maintenance for all roads that are the liaison between divisions	a. Completeness of work facilities b. Availability of work infrastructure	Inspection of work facilities and infrastructure is carried out every 3 months	2022 and continuous	Civil Engineering

8	Plasma/ Partnership Program	Increased productivity and economic value of land	Continuation of the program for the development of nucleus estates and partnership plantations (plasma)	a. Conduct intensive meetings to disseminate information about plasma partnership, especially regarding the area, rules/ regulations and the requirements needed b. Conduct meetings with the community to submit a partnership work report c. Involving the community, traditional leaders and village government in the implementation of the inventory	a. Documents of location, area and land status of plasma plantations as well as the composition of participatory plasma development b. Document on the potential for developing community land into oil palm plantations c. Document the number of people joined as partners	Meetings with Plasma Management, Muspika, Community Leaders, Traditional Leaders and community representatives are held every 3 months	2022 and continuous	Partneship Dept./ Plasma
9	FFB Production	High rate of FFB theft	a. Regular patrols b. Monitoring cases of theft on a regular basis	a. Socializing the location and area of the company's plantations to the community b. Make a warning board about the threat of punishment for theft cases c. Forming an integrated team involving the community for security	a. Patrol schedule document b. Theft case logbook	a. Routine patrols are carried out every day by the security team b. Security patrol by staff once a month	2022 - 2024	Operation Team, Security Team and Task force team
10	Circumstances Around the Company	Increasing types of people's livelihoods	Monitoring the number of people carrying out new activities for alternative livelihood	a. Expanding cooperation with the community through community business assistance programs b. Conduct a selection of prospective participants who have sincerity c. Conduct business capacity building training d. Help facilitate access to capital and business equipment and marketing	Community business assistance program report	a. Assistance in the formation of Business Groups according to village potential is carried out every 3 months b. Business Training, HR Training, Production Improvement, etc. are carried out for 6 months sekali	2022 - 2024	CSR

11		Broken roads	Monitoring the condition of the roads that are often used by the company on a regular basis	a. Carry out road maintenance, especially for roads that are often used by companies b. Participate in fulfilling village/regional government invitations for road maintenance contributions	a. CSR realization report for road repair b. Documentation	Road repairs are carried out when the road is damaged / requires road maintenance	2022	Department Support, Civil Engineering, Operasional

3. HCV Areas and HCS Forests

Management and Monitoring Recommendation

Threat Assessment

Threats are assessed using comprehensive approach from IUCN (Salafsky *et al.*, 2008). Several field findings related to threats against HCV area include forest logging by local community/newcomer, RTE wildlife hunting, excavation C on hilly area, sedimentation in river, agriculture/plantation cultivation in riparian zone, river polluting activities (tailing from sand pumping goes back to river and makes the water murky).

The Assessment output shows that in general the intensity of the existing threats is categorised as medium impact. However, high, and low impact threats are also found. Threats with low impact intensity are operational activities of community oil palm plantation. Medium impact threats include sand pumping activities in big rivers (e.g., River Kayong). This is because the activities take place in relatively low affected locations/areas and are not continuous activities, so the threats are fluctuating. High impact threats are wildlife hunting, particularly on RTE species. Important wildlife species are rarely found in the remaining forested areas.

Cause or source of major threats contributing to pressure are mostly came from external factors. This pressure arises because HCV areas are located on lands used freely by community members for long time to obtain land resources. These activities include farming, (timber) logging, and wildlife hunting. Meanwhile, internal threats came from land clearing activity (potentially breaking HCV area boundaries if it is inappropriately done or is not closely monitored) and use of chemicals that are not in accordance with environmental conservation principles for riparian zone.

This threat assessment is very crucial in developing HCV area management recommendations. Results of consultation with stakeholders and experts will be used as input in developing effective HCV area management strategy recommendations.

Table 3. Summary of identification of threats to HCV

HCV	Brief Summary of Value Presence in Assessment Areas	Major Threat
1	The presence of RTE species, particularly Bornean white-bearded gibbon (*Hylobates albibarbis*) and several Dipterocarpaceae species. Bornean white-bearded gibbon is living in remaining secondary forest fragments in the MU concessions. Several Dipterocarpaceae species also develop species composition in secondary forest fragments in the Assessment landscape Important areas of rivers within the Assessment landscape, are natural habitats for various RTE aquatic wildlife, including turtle, Asian small-clawed otter and false gharial	• Wildlife hunting by community, particularly RTE species hunting • Illegal logging by local community and newcomer in secondary forest fragments to cut down Dipterocarpaceae species • Clearing of forested land or land with good vegetation by community/company to farm/garden. The clearing activity cut across corridor for important wildlife
3	There are threatened ecosystems that meet HCV 3 criteria, i.e., mixed dipterocarp forests on metamorphic and sedimentary rocks	• The company's plan to clear the land for oil palm plantation • The company's plan to build road and blocking path in the initial phase of land clearing for oil palm plantation • Illegal logging by local community and newcomer • Clearing of forested land or land with good vegetation for community/company to farm/garden.
4	Steep slopes (hill/hills), rivers and its riparian zones are present. Hill/hills mostly has fairly good natural vegetation. There are 32 rivers and riparian zones within the MU concessions.	• Plantation operational activities by the MU around the riparian zone that produce agricultural effluents, i.e., fertiliser, pesticide, and herbicides • Plantation operational activities by community around the riparian zone that produce agricultural effluents, i.e., fertiliser, pesticide, and herbicide • Road/blocking path construction activities by the MU in land clearing phase which cut across riparian zone • Land clearing by community to farm/garden on steep slope and riparian zone • Illegal logging by local community and newcomer on steep slopes, e.g., Sempawan Hill • Excavation C in hilly areas containing fairly good vegetation • Non-eco-friendly water pumping activities in big rivers (River Kayong) • River sedimentation due to morpho erosion on cut banks Electric fishing/fish poisoning

5	There are situations that qualify as HCV 5, i.e., rivers (used by local communities for fishing and source of clean water), rice fields, and durian plantations, such as in Muara Semayok Village.	• Land clearing activities by communities for agricultural business (dryland farming) or oil palm plantation around riparian zone • Land clearing activities by the MU for expanding oil palm plantation • Electric fishing/fish poisoning • Non-eco-friendly water pumping activities in big rivers (River Kayong)
6	Situations that qualify as HCV 6 are also found, i.e., *sandung*, burial ground, sacred place, historical place.	Land clearing activities by the MU for expanding oil palm plantation, which intervene HCV 6 area as its exact location is unclear.

Recommendation by Value

The general objective of HCV management is to maintain and enhance the HCV elements. HCV elements maintenance is a minimum requirement in HCV management. This can be done through protecting HCV area and mitigating threats to keep HCV important value from degrading. The company is also expected to restore the decreased HCV important value caused by negative impact from their own operational activities.

In addition to HCV areas, the management is also implemented on the areas that support the sustainability of HCV areas but not particularly HCV areas, namely HCVMA No Go. There are also HCV areas experienced decrease in value, such as riparian zone planted with oil palm or converted into community farm. Cultivation activities in riparian zone should also be followed by protection of HCV value contained in the river. Such areas can affect the HCV areas' sustainability.

The Assessment output indicate that five types of HCV identified in the MU concessions include HCV 1, HCV 3, HCV 4, HCV 5, HCV 6, and HCS. HCS areas are overlapping with HCV areas. Total HCVMA is 4,423.12 ha (16.4% of the MU concessions). Area and boundary of the overall HCVMA areas are still indicative. Based on the Assessment, there are 96 HCV area presence location indexes in the MU, including presence of important species, shrub/forest block that constitute threatened ecosystem part, river and riparian zone, steep slope area with good vegetation (hill), rice field, community burial ground, and historical and sacred place. See **Table 4** for management recommendations by HCV areas.

Table 4. HCVMA management and monitoring recommendation

No.	Conservation Value	Threat	Recommendation				
			Management	Monitoring	Frequency	Timeline	PIC
HCS Forest							
	HCS Forest	• Logging • Land clearing and conversion into farm	• Conduct field delineation based on draft version of map of HCV-HCS , after HCV-HCS report is declared satisfactory • Demarcate and install border sign and signboard on delineated HCV-HCS areas. In areas managed by communities, this process should be done by implementing FPIC at first and	• Develop permanent measurement plot to monitor growth and development of vegetation in HCS areas • Regular Monitoring and Evaluation of HCV-HCS management plans	• Field delineation and demarcation will be carried out once and monitored the condition of the stakes per 3 months • Once per 6 months	• Field delineation: 2022	• Conservation Dept • Sustainability Staff

			collaboration afterwards. While in areas managed by the MU companies (HGU), the process can be implemented directly by disseminating information to relevant stakeholders on the areas • The MU companies document delineation and demarcation processes in an official report • Conduct continuous information dissemination to local communities on the important value of HCS areas • Prevent illegal logging within conservation areas in the MU concessions that has HGU legal status • Develop collaboration patterns with communities to manage conservation areas, particularly for lands managed by communities and by the MU companies in which communities also use the lands.				
HCV 1							
1	All-important species and other biodiversity species	• Wildlife poaching • Logging and land clearing causing damage and decrease in habitat area and connectivity • High level erosion and chemicals pollution may cause decrease in quality of aquatic habitat	• Conduct continuous information dissemination to the surrounding communities on important value of HCS areas and biodiversity within the areas to prevent communities from controlling and clearing riparian areas and diptercarp forests • Ensure no hunting of RTE, endemic, and protected species by all plantation staff and workers as well as wider communities. • Encourage efforts in controlling the plantation staff's and workers' ownership of air riffles through cooperation with the authorities • Prohibit plantation staff and workers to sell and buy RTE, endemic, and protected species • Make sign board on prohibition of hunting protected species • Establish wildlife patrol team that has ability to mitigate wildlife conflicts,	• Carry out regular monitoring of conservation areas by recording the presence and population of important wildlife species. Data recorded, at least, include time, species, number of individuals, location coordinate • Conduct survey to verify the presence of important species (e.g., Sunda pangolin) in this assessment based on information obtained from interview with several stakeholders • Record emerging threats to RTE species and their habitats, such as hunting of RTE and endemic species within the area • Conduct patrol for illegal logging, land burning, and other threats to conservation areas	• Vegetation Growth & key species presence will be monitored once every six months • Periodic socialization and refreshment will be conducted twice per year • Forest/conservation area patrols are conducted twice per week	Start 2022 and continuous	• Sustainability Dept. • Conservation Dept • Management Unit

			including for animal rescue through cooperation with the relevant instituions, e.g., BKSDA, NGOs, and local communities • Ensure forest presence (HCV and HCS areas) can be maintained by preventing any logging, enroachment, conversion, and forest fire • Prevent land fire, including prohibit land burning for dryland farming, hunting, fishing, etc. • Regulate the land clearing location on development areas (exclude conservation areas), so that wildlife species can go to conservation (HCV and HCS) areas • Develop wildlife evacuation procedur (i.e., if they are trapped during land clearing phase) • Prevent erosion, see HCV4 management recommendation See also management recommendation in HCS Forest				
2	Bornean white-bearded gibbon (*Hylobates albibarbis*; EN) & silvery lutung (*Trachypithecus cristatus*; VU)	• Habitat loss due to logging • Hunting	• Ensure that no logging conducted in the gibbon habitat, including Sempawan and Lempuding Hills, particularly no logging of fruit/food trees • Rehabilitate the gibbon habitat forests, e.g. owa's habitat. Sempawan Hills include replanting fruit trees for owa's food source • Ensure that no hunting is conducted	• Designate the gibbon habitat in Sempawan Hill as a permanent gibbon monitoring station • See monitoring recommendation for all *species*			
3	Long-tailed macaque (*Macaca fascicularis*; VU) & Southern pig-tailed macaque (*M. nemestrina*; VU)	Potential conflict with humans, because these species, if living adjacent to farms, tend to disturb the activities there	• Develop techniques for frightening Southern pig-tailed macaque away from community farms • Conduct training for plantation-owning communities to implement techniques for frightening Southern-pig-tailed macaque away from dryland farms	*See also monitoring recommendations for all species*			
4	Sun bear (*Helarctos malayanus*; VU), Bornean clouded leopard (*Neofelis diardi*; EN), leopard cat (*Prionailurus bengalensis*; P);	Loss of habitat and poaching (Sunda pangolins are highly valued; there are information on Bornean	• Cooperate with BKSDA, MoEF Law Enforcement and the police force in preventing and prosecuting sun bear, leopard cat, and Sunda pangolin poaching (and illegal trading)	*See also monitoring recommendations for all species*			

	and Sunda pangolin (Manis javanica; CR)	clouded leopard poaching and taxidermying)	• Disseminate information on prohibition of these wildlife poaching within the MU concessions to all plantation staff and employees, as well as the general public. Provide security officers, who usually guard plantation entrances, the ability to disseminate protection policy and hunting prohibition of important wildlife				
5	Mousedeer (*Tragulus kanchil*; P), greater mousedeer (*T. napu*; P), sambar deer (*Rusa unicolor*; VU), muntjac (*Muntiacu muntjak*; P)	Habitat loss and poaching	• Cooperate with BKSDA, MoEF Law Enforcement and the police force in preventing and prosecuting poaching (and illegal trading) • Disseminate information of poaching prohibition of those wildlife within the MU concessions to all plantation staff and employees, as well as the general public Provide security officers normally guarding plantation entrances with the ability to disseminate the protection policy and hunting prohibition of significant wildlife	*See also monitoring recommendations for all species*			
6	Black-winged kite (*Elanus caeruleus*; P), crested serpent eagle (*Spilornis cheela*; P), changeable hawk-eagle (*Nisaetus cirrhatus*; P), black eagle (*Ictinaetus malayensis*; P), & black-thighed falconet (*Microhierax fringillarius*; P)	Nesting habitat loss	• Eagle species often use trees in deliberately abandoned plantations by companies as temporary perches while hunting. • Preserve potential nesting habitat, e.g., remaining forests in Sempawan & Sengkuwayan Hills	Record raptor nest location during periodic environmental monitoring. *See also monitoring recommendations for all species*			
7	Rhinoceros hornbill (*Buceros rhinoceros*; P), oriental pied hornbill (*Anthracoceros albirostris*; P), black hornbill (*A. malayanus*; P)	Habitat degradation: decline in nest trees and fruit trees	Preserve potential nesting habitat, e.g., remaining forests on top and slope of hills in the MU concessions.	Record presence of hornbill's nest and fruits that constitutes its diet during periodic environmental monitoring. *See also monitoring recommendations for all species*			
8	Blue-crowned hanging parrot (*Loriculus gagulus*; P), whitehead's trogon (*Harpactes whiteheadi*; E), & red-crowned barbet (*Megalaima rafflesii*; P)	Habitat degradation	*See management recommendations for all species*	*See monitoring recommendations for all species*			
9	Dusky munia (*Lonchura fuscans*; E), common hill myna (*Gracula religiosa*; P),	Poaching for pet	Disseminate information of poaching prohibition of those wildlife within the UM area to all plantation staff and	*See also monitoring recommendations for all species*			

	and Javan myna (*Acridotheres javanicus*; VU)		employees, as well as the general public. Provide security officers normally guarding plantation entrances with the ability to disseminate the protection policy and hunting prohibition of significant wildlife and assign poaching prevention task to them.				
10	Asian small-clawed otter (*Aonyx cinereus*; VU), false gharial (*Tomistoma schlegelii*; VU), Asiatic soft-shelled turtle (*Amyda cartilaginea*; VU), Amboina box turtle (*Cuora amboinensis*; VU)	Poaching for pet (all three species) and food source (Asiatic soft-shelled turtle and Amboina box turtle) Aquatic habitat destruction due to water pollution from agrochemical waste	• Prevent all sorts of river and riparian area pollutions, either due to application of agrochemicals from oil palm plantations or fish poisoning that can disturb their habitats • Develop mitigation of the impact of channel construction and normalisation of streams to the habitats of Asian small-clawed otter, Amboina box turtle, Asiatic soft-shelled turtle, e.g., evacuation procedure and prohibition to hunt, keep as pets, and consume these species • Avoid the construction of plantation channels that cut across the streams, and, if unavoidable, develop its mandatory mitigation plan • Supervise the construction of channels and normalisation of streams to ensure the safety and security of these wildlife species *See also HCV4 and HCV5 management recommendations*	• Monitor periodically the water quality in swamp and river that can be conducted simultaneously with environmental monitoring activities (EIA/UKL [Environmental Management Program]/UPL [Environmental Monitoring Program]) • See also monitoring recommendations for all species			
11	Asian water monitor (*Varanus salvator*; II), reticulated python (*Malayopython(*) reticulatus*; II), Sumatran short-tailed python(*) (*P. curtus*; II), Equatorial spitting cobra (*Naja sumatrana*; II), and king cobra (*Ophiophagus hannah*; II)	Poaching Habitat destruction	Cooperate with competent stakeholders in handling dangerous wildlife, (e.g., king cobra and Equatorial spitting cobra), e.g., with BKSDA and snake conservation activists *See management recommendations for all species*	*See monitoring recommendations for all species*			
12	Dipterocarpaceae (shorea species), viz. *Hopea ferruginea* (CR), *Shorea almon* (CR), *S. gibbosa* (CR), *S. lamellata* (CR), *S.*	• Logging. • Low natural regeneration rate due to edaphic	Identify stakeholders relevant to mixed lowland dipterocarp forest • Integrate the HCV concept with existing protective measures taken by local stakeholders to be applied in mixed	• Monitor regularly by periodically recording the presence of significant plant species (semi-annually) • Monitor seed-generating parent trees			

	palembanica (CR), *S. platyacarpa* (CR), *S. rotundifolia* (CR), *S. seminis* (CR); and other important plant species, viz. jelutong (*Dyera costulata*; VU), *baseluang* (*Ellipanthus beccarii*; VU), Bornean ironwood (*Eusideroxylon zwageri*; VU), & *bedara* (*Gonystylus consanguineus*; VU)	factors and micro-level climate change • Pest and disease (attacking tree seed and seedling, as well as parent tree)	lowland dipterocarp forest area; record and document the whole management process • Provide seedling through nursery of the original trees that build forest composition • Collect natural seeds from parent trees, e.g., (seeds of shorea, Bornean ironwood, jelutong, etc.) • Identify type of pest and disease	• Monitor blooming season of all significant plant species • Monitor RTE plant seed (four times a year);			
HCV 3							
	Mixed lowland dipterocarp forest ecosystem	• The MU companies' plan to clear land for oil palm plantation as well as road and blocking path, at the initial stage of land clearing for oil palm or logging • Illegal logging by local communities and newcomers • Forested/vegetated land clearing by community/company to farm/garden	Keep the forests in good condition and not fragmented by logging activities, by restricting all access to HCV 3 area, e.g., by constructing trenches around HCV 3 areas	Analyse land cover changes in HCV 3 area periodically, e.g., semi-annually using drone	• HCV boundaries will be monitored twice per year • The engagement with the local community in the context of HCV co-management is carried out in the long term by involving multi stakeholders.	• Start 2022 and continuous • Monitoring the progress of HCV c0-Management will be carried out once every 6 months	Conservation Dept.
HCV 4							
1	Ecosystem services from: River and riparian zone Wetland (lake)	• Plantation operational activities by communities around riparian zone that produce agricultural effluents, e.g., fertiliser, pesticide and herbicide applications • Non-ecologically-friendly water pumping in large river body (River Kayong) • River sedimentation due to riverbank morpho-erosion • Electric fishing or fish poisoning	• Keep river flow in good condition (no river normalisation) and stabilise morpho-erosion-prone riverbanks by constructing traditional retaining walls (bamboo plants) • Maintain river water quality in accordance with the quality standard treshold by implementing Best Management Practices (BMP) in applying ecologically friendly fertiliser, pesticide, and herbicide	• Conduct sampling of river water to monitor river quality (Total Suspended Solid [TSS]/Total Dissolved Solid [TDS], colour, odour) periodically in Rivers Segagap, Demit, Kayong, Gerunggang, and Pemahan Location in inlets and outlets of the MU concessions • Monitor extreme water table height (by setting up water table height board) in flood-prone rivers, e.g., downstream of River Segagap	• River water sampling at the specified point to monitor river water quality is carried out twice a year and will be reported in the AMDAL RKL-RPL • Monitoring of land cover related to conservation and other land cover changes is carried out using satellite imagery per quarter, equipped with ground truthing	• Monitoring of water quality has been started on 2021 will be continued as long as company operation • Monitoring of land cover of conservation area has been started 2018 and continuous	• Sustainability Dept. • Management Unit • Conservation Dept.

2	Steep slopes (hill)	• Road/blocking path construction by the MUs at during land clearing, which cut across riparian zones • Land clearing for farm/plantation by community on steep-slopes and riparian areas • Illegal logging by local communities and newcomers • Excavation-C on hills with natural vegetations that are still in good condition.	• Keep the vegetations in riparian areas and steep slopes undisturbed: • Reduce the number of cross sections intersecting the river in constructing the road, but effective within the plantation operational mobility paths by preserving the surrounding vegetations • Conduct afforestation in damaged/opened riparian areas/steep slopes. In riparian areas, thick vegetations to be planted, such as bamboos, are recommended. • Enrich vegetations in hills that are already planted with oil palm, e.g., with vetiver to strengthen landslide/erotion-prone cliffs • Implement environmental-securing SOP to handle landslide and erosion in excavation-C site	• Patrol periodically around the riparian area perimeters • Disseminate the information on the importance of maintaining river and riparian zone to the staff/employee and surrounding communities • Support collaborative activities with stakeholders (neighbouring companies, governments, and surrounding communities) in maintaining the river and riparian zone	• Repair of roads will be carried out by request from the community or or adapted to the needs of the community	• Start 2022 and continuous	
HCV 5							
1	River as water source and fishing spot	• Land clearing by communities for agribusiness (farm) or oil palm plantation around the riparian zone • Land clearing by the MUs for oil palm plantation expansion • Electric fishing or fish poisoning • Non-ecologically friendly water pumping in large river body (River Kayong)	*See HCV 4 area management for river and land*	*See HCV 4 area monitoring*	• River water sampling at the specified point to monitor river water quality is carried out twice a year and will be reported in the AMDAL RKL-RPL • Monitoring of land cover related to conservation and other land cover changes is carried out using satellite imagery per quarter, equipped with ground truthing	• Monitoring of water quality has been started on 2021 will be continued as long as the company operation • Monitoring of land cover of conservation area has been started 2018 and continuous	• Sustainability Dept. • Management Unit • Conservation Dept.
HCV 6							
1	*Sandung* (ossuary of the Dayak people), tomb, sacred site, historical site	Land clearing by unit management for oil palm plantation expansion that trespasses on HCV 6 because the exact location is unclear	• Ensure the exact location of HCV 6 • Install clear boundary marks and signboards • Cooperate with community to maintain HCV 6 areas	Conduct semiannual regular monitoring	Preservation of traditional ceremonies and traditional places is carried out based on requests from local communities	Has been started on 2015 and will be continued	CSR Dept.

2	Culturally important floras, viz. *segulang* tree and giant bamboo, and fauna (hornbill)	• Diminished culturally important species population • Degraded habitats of these important floras and faunas	• Collect data and conduct mapping of source locations of sacred plants that are used by community • Establish the culturally-important flora and fauna habitats as conservation areas • Promote sustainable use of these culturally important species	*See monitoring recommendations for important species in HCV 1*			

Cross-Value Recommendations

Management recommendations relating to HCV cross-value are as follow.

1) Develop immediately a more detailed HCV Management Plan document, by considering:
   - species protection aspects, because not all kinds of threatened wildlife have definite core area or clear plantation-crossing path, and also take into account interhabitat connectivity;
   - with regard to HCV area connectivity, the forest should be maintained in good condition and not fragmented by logging activities, by means of restricting all access to HCV areas;
   - strengthening of communication network with other companies around the HCV area to develop management plan and protection plan of HCV areas;
   - landscape approach engaging local communities and relevant stakeholders; and
   - Management and Monitoring Plans of HCV-HCS, which are integrated with other environmental management activities, e.g., UKL-UPL, etc.
2) Build an organisation for HCV-HCS management:
   - establish executive unit to ensure the HCV-HCS management goals are achieved;
   - train or recruit staff having required HCV-HCS management qualifications; and
   - prepare personnel for regular patrol on the perimeter of the HCV-HCS areas.
3) Build capacities for identification, management, monitoring, and evaluation:
   - Elaborate in detail the SOP for management and monitoring of HCV-HCS areas; and
   - Implement procedures and policies consistently.
4) Delineate and demarcate HCV areas (boundary demarcation) that have been identified.

5) Before demarcating and delineating HCV-HCS areas, land tenure/ownership in which HCV-HCS areas are located should be taken into account. This will have implications on further HCV area management, namely:
   - If land ownership is still held by communities, then anything relating to protection and management of the HCV areas need to be coordinated with the land owner, and implement mutual agreement; and
   - If the land ownership is held by company, enforcement of protection regulations is required
6) Install signboards as a form of public information dissemination and awareness-raising relating to HCV area internally (management units) and externally (stakeholders).
7) Coordinate with relevant stakeholders (NGO, government, community) in the maintenance of HCV area (HCV area across the boundary of management unit, e.g., rivers, riparian zones, forest blocks, hills) and support collaborative activities relating to area management concept.
8) Upon land clearing, management units conduct coordination and close surveillance against the third party (contractor) regarding HCV area locations, so that there will be no infringements to designated HCV areas.

Beside management, HCV-area monitoring is also important. Apart from monitoring of HCV element indicators, monitoring of management strategies is also conducted, which comprises as follows.

1. Implementation of management strategies in the field, relating to whether it is easy or not to implement the planned strategies are easy to implement in the field or not (operational monitoring);
2. Management strategies are poorly implemented. If the planned management strategies are good, yet executed poorly, the expected objective and targets will not be achieved (strategic monitoring/effectivity);
3. Threats/new or changing conditions. Effective management strategy at a certain moment might not always be effective (threat monitoring).

4. Stakeholder and local people engagement (FPIC process)

Table 5. Management & Monitoring Plan of FPIC Issue

No.	Affected Components	Issue	Strategy	Activity	Output	Frequency	Timeline	PIC
1	Labor Issue	Social Jealousy	Monitoring of community perception of the company through regular meetings	Provide transparent employee recruitment information to	Data of local workers who work at PT. Lestari Gemilang Intisawit	a. Employment socialization is carried	2022 and continuous	HRD, Training Centre

				community through the village government.		out about every 6 months b. Recruitment of employees is carried out about once a year		
2	Land Tenure	The company unable to improve the legal status of the land	a. Identification of land area and types of land use controlled by the community within the company concession area b. Monitoring of areas owned by the community	a. Mapping the enclave land within the company concession area b. Communicating with the community who own the enclave land by involving community leaders and village government	Document of: a. Land area owned by the community within the company concession area b. Land use on community-owned land.	Meetings with Plasma Management, Muspika, Community Leaders, Traditional Leaders and community representatives are held every 3 months	2022 and continuous	Partnership, Document & License and Corporate Affair
3		Land disputes between communities	a. Collecting data on claims or land occupations carried out by the community. b. Monitoring of public perception of the company through regular meetings	a. Conduct detailed identification of community land ownership prior to land compensation activities b. Collecting data on claims or land occupations carried out by the community.	a. Claim data document b. Minutes of the meeting with the village level government community and customary institutions	b. The identification of land ownership is updated every month. Complaints from Stakeholders received by the Partnership Staff will be responded to in a minimum of 14 working days c. Gathering with Muspika Stakeholders, Traditional Leaders, Community Leaders will be held every 6 months d. Monitoring of claim cases will be reported and discussed once a month in the S2H meeting	2022 - 2024	Partnership, Document & License
4	Circumstances Around the Company	Community Positive perception against the company	Monitoring community perceptions of the company through regular meetings of the Village Level Government and Customary Institutions	Continuing existing CSR or social assistance programs	Report on the realization of social impact management	a. Monthly CSR realization report b. Meeting at Musrembangdes once a year	2022 and continuous	CSR

5		*Multiplier effect at local level*	Monitoring public perception of the company	a. Continuing the company's program that has been running b. Conduct a community index survey of the company	Public Satisfaction Index Survey Document for companies	The perception index survey is carried out once a year	2022 and continuous	CSR
6		Broken roads	Monitoring the condition of the roads that are often used by the company on a regular basis	c. Carry out road maintenance, especially for roads that are often used by companies d. Participate in fulfilling village/regional government invitations for road maintenance contributions	a. CSR realization report for road repair b. Documentation	Road repairs are carried out when the road is damaged / requires road maintenance	2022	Department Support, Civil Engineering, Operasional

5. Soil and Topography

The following is a summary of the limiting factors in the 4 lands suitability and their management recommendations:

1. Dry Moon

   The four SPTs both had one dry month in the last 5 years. Dry month is a condition where the amount of rainfall accumulation in one month is <60 mm. The following are recommendations for land management for oil palm during dry months:

   - Fertilization should be stopped in the dry months;
   - Planting Cover Crop such as beans at TBM and Nephrolepis at TM can keep soil moisture longer;
   - Construction of dams, especially in sandy areas to enter water into the land.

2. Elevation and Slope

   The condition of wavy to hilly slopes is found in the SPT Typic Paleudults at PT LGI. In conditions of wavy to hilly slopes, it is recommended to build a terrace so that the flow of water is restrained and the fertilizer is not easily washed off.

3. Drainage

   Inhibited drainage class is in SPT Typic Plinthudults and Typic Udifluvents. Management recommendations include:

   - Hoarding Tread Making

- Making trenches in field 2:1

4. Soil pH

Soil pH below 4 was found in SPT Typic Plinthudults and Typic Udifluvents. Management recommendations include:

- Dolomite application regularly;
- Addition of organic material in the form of empty bunches (composting)

6. GHG Emission

6.1. Steps to Manage and Increase the Carbon Stock

6.1.1. Land Use Change / New Planting

Land conversion appeared as the largest emission factor contributing to 29,490.75 tCO_2e

Target	:	Reduction of emissions from land clearing activities
Action Plan	:	1. No land clearing of conservation and forest area 2. Management plan of conservation areas 3. Development of fire mitigation and completion of firefighting equipment

6.1.2. Carbon Crop Sequestration

Carbon crop sequestration contributes to emissions reductions to -42,916.12 tCO_2e

Target	:	Incease of carbon crop sequestration
Action Plan	:	1. Use of seeds with high production potential 2. Use of land cover crops

6.1.3. Fertilizer

Emission source: manufacturing of the fertilizer and its application on the field.

Target	:	Emission reduction from fertilizing
Action Plan	:	1. Leaf & soil analysis to obtain the data of optimal amounts of fertilizer applied; 2. Empty bunch used for mulching (composting) 3. Fertilizers application technique based on topography 4. proper fertilization dose, right time and place, and in accordance with the Good Agricultural Practice

6.1.4. Diesel Consumption in Operation

Fuel Consumption in the field contributed to 1,644.81 tCO_2e

Target	:	Reduction of emission from Diesel Consumption in Operation
Action Plan	:	1. Good maintenance of vehicles and other equipment, periodically 2. Safety of driving related training

6.1.5. HCV Crop Sequestration

Crop sequestration from the conservation area appeared as the largest emission reduction factor, contributing of -4,011.63 tCO_2e

Target	:	Increase of carbon sequestration
Action Plan	:	1. Rehabilitation on the Conservation Areas which has open land and/or bushes as a land cover 2. To monitor the Conservation Area from any other activities 3. Work with the local community to protect the Conservation Area

6.2. Monitoring of the Action Plan implementation

6.2.1. Land Use Change/ New Planting

Monitoring of land clearing

Action Plan	Timeline
To monitor the plans for land clearing and its realisation	August 2022 – July 2026 (During land clearing phase)

6.2.2. Carbon Crop Sequestration

Monitoring carbon crop sequestration

Action Plan	Timeline
To make sure that seed is good quality and with a government license	August 2022 – July 2026 by QC Dept.
To monitor the realisation of oil palm planting & legume cover crops	August 2022 – July 2026 by QC Dept.
To minimise the FFB losses	On mature plant by Quality Agronomy Control Dept.

6.2.3. Fertilizer

Monitoring fertilizer emissions

Action Plan	Timeline
To monitor leaf and soil analysis activity	Once every 1 year, on April – May by Research Dept.

To monitor empty bunch application for mulching	When its applied by Quality Control Dept.
To monitor plan and realisation of fertilizer application	Every fertiliser application by Estate Assistant and QC Dept.

6.2.4. Diesel Consumption for Transport

Monitoring fuel consumption in the operational activity

Action Plan	Timeline
To monitor the fuel consumption of each device and vehicle	Every month by Traction Dept.
To analyse work of equipment compared to its fuel consumption	Every month by Traction Dept.
To monitor planning & realisation of training related with driving safety	Once every 6 months by Training Center

6.2.5. HCV Crop Sequestration

Monitoring carbon sequestration of the HCV – HCS Areas

Action Plan	Timeline
To monitor the planning and realisation of HCV areas rehabilitation, where the land cover is grassland or open land	Once every 6 months by Sustainability Dept.

6	**Acceptance of**	**Name of Person Responsible**	Martin Mach

	Management Plans	**Designation**	Deputy Corporate Sustainability and CSR
		Signature	
		Date	September 2022
		Name of Person Responsible	Kamsen Saragih
		Designation	Director
		Signature	
		Date	05 October 2022