



INDONUSA GROUP

ECOSYSTEM RECOVERY AND COMPENSATION PLAN PT INTERNUSA JAYA SEJAHTERA (PT IJS) 2024



PT INTERNUSA JAYA SEJAHTERA

**PEMBIBITAN TANAMAN BARU
UNTUK **RECOVERY PLAN**
DI PT INTERNUSA JAYA SEJAHTERA**



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1 Company Profile

PT Internusa Jaya Sejahtera (PT IJS) is located in Ulilin and Elikobel Districts, Merauke, South Papua. PT IJS started its oil palm business in Papua in 2015, based on the directive of Local Government, as outlined in the Decree of Head of Merauke No. 009/SIL/DPMPTSP/II/2017. The company has 18,184.05 ha of concession, which is divided into three estates: Maro (MOE), Kumbe (KBE), and Novak (NOE).

The geographical boundaries of PT IJS plantation areas include:

- To the north : Water catchment and cultivation zone
- To the south : Water catchment and cultivation zone
- To the west : PT Agrinusa Persada Mulia palm oil plantation, water catchment, cultivation zone, and urban area
- To the east : Water catchment

Based on the Land Inspection Committee B Document No. 1/RPT B/VIII/2017, the area under PT IJS Right to Cultivate (HGU) is located within the Non-Forestry Zone.

2 Liability

The Hylobates Awara Foundation (Yahywa) implements forest cover change analysis using an approach aligned with Intergovernmental Panel on Climate Change (IPCC) Standards. Essentially, this approach involves tracking and determining the extent of deforestation to inform a recovery plan to be implemented by PT IJS. The objective is to ensure that the company's supply chain remains free from deforestation in the future while determining the magnitude and type of compensatory measures required to offset biodiversity loss, carbon emissions, and their impacts on the livelihood of local communities.

The objective of the analysis is to classify land use and land cover status, as well as to identify liabilities arising from land-use change over the past eight (8) years within the company's concession in South Papua. The analysis used Landsat 8 TM aerial data from late 2016 to early 2023 with 1 interval, a map of concession boundaries, the Ministry of Environment and Forestry (MoEF) forest cover baseline, and a peat map. ArcGIS 10.5 software was employed to delineate information on land use and land-use change within the concession.

The land use/cover classification system was developed based on the 6 broad categories of land use of IPCC Good Practice Guidelines. Visual digitisation (*on-screen digitisation*) was applied to delineate and classify how forest cover change year after year. The total area of PT IJS plantation was 1,251.92 ha in 2016, which increased to 11,347.18 ha by 2023. This expansion of the oil palm plantation was attributed to the conversion of secondary dry land forest and secondary swamp forest, incurring liabilities during the period of 2016 to 2023. In 2016, the total forest area within the concession was 10,667.41 ha, representing approximately 79.42% of its total concession). However, it experienced a reduction in 2023, diminishing to 1,635.89 ha (12.18% of its total concession). This analysis shows that within the period of 2016 – 2023, PT IJS converted a total of **9,031.52 ha of secondary forest**.

Table 1. Total area of secondary forest converted into plantation in 2016-2023 within PT IJS concession in South Papua

	Land Cover	2023								Total
		Shrub	Swamp Shrub	Secondary Dryland Forest	Secondary Swamp Forest	Bare land	Settlement	Plantation	Dry Rice Land	
2016	Shrub	16.45								16.45
	Swamp Shrub		41.47					50.66		92.13
	Secondary Dryland Forest	178.87		1,572.02		74.15		8,567.09	5.51	10,397.64
	Secondary Swamp Forest				63.87			205.90		269.77
	Bare land	10.14					21.10	1,269.60		1,300.84
	Settlement						95.34			95.34
	Plantation							1,251.93		1,251.93
	Dry Rice Land								6.55	6.55
	Grand Total		205.46	41.47	1,572.02	63.87	74.15	116.43	11,345.18	12.06

Calculation of Responsibility for Recovery and Compensation Plan

Two options for compensation (which can be combined):

- “Hectare for hectare”**: conserve an area equivalent to final liability.
- “Programme for hectare”**: develop a conservation and social programme equivalent to final liability.

The recovery and compensation programmes are separate from the company’s existing CSR programme liability.

3 Recovery and Compensation Plan

3.1 Objective

The Recovery and Compensation Plan aims to facilitate the restoration of ecological, economic, and social functions in areas that have been cultivated with oil palm.

3.2 Target

The Recovery and Compensation Plan must be resource-efficient, with clear objectives, timelines, and responsibilities to achieve following targets.

- Adding value
- Ensuring continuity (over a period of 25 years)
- Upholding fairness and justice
- Grounded in science-based principle

3.3 Aspect

- Ecological and environmental aspects

Table 2. Risk of Ecological and Environmental Impacts

No.	Distribution Target of the Recovery and Compensation Plan	Area (ha)	Nominal (IDR)	SOP
1	Within the area/concession			
	HCV 4 Buffer (Riparian Buffer Zone)	340.72		EHS-001: Management and Monitoring of High Conservation Value (HCV) Areas
2	Outside the area/concession			
	Facilitation for the Protection of Bupul Nature Reserve	81.997		

b. Social and cultural aspects

Table 3. Social and cultural aspects

No.	Distribution Target of the Recovery and Compensation Plan	Area (ha)	Nominal (IDR)	SOP
1	Within the area/concession			
	HCV 4 Buffer (Riparian Buffer Zone)	340.72		EHS-001: Management and Monitoring of High Conservation Value (HCV) Areas
2	Outside the area/concession			
	Facilitation for the Protection of Bupul Nature Reserve	81.997		

c. Economic and sustainable livelihood aspects

Table 4. Economic and livelihood aspects

No.	Distribution Target for the Recovery and Compensation Plan	Area (ha)	Nominal (IDR)	SOP
1	Within the area/concession			
	HCV 4 Buffer (Riparian Buffer Zone)	340.72		EHS-001: Management and Monitoring of High Conservation Value (HCV) Areas
2	Outside the area/concession			
	Facilitation for the Protection of Bupul Nature Reserve	81.997		

4 Implementation of Recovery and Compensation Plan

4.1 Implementing Organisations

The company may carry out the recovery and compensation programme directly or delegate it to competent stakeholders with **recovery and compensation expertise**.

4.2 Financial and Funding Mechanism

The company holds exclusive rights to finance the plan under the liability replacement programme, which has been initiated since the **cut-off date**. It may also be extended for collaboration with other organisations engaging in similar activities within the same geographical landscape.

4.3 Timeline

The timeline for the activities extends over a period of 25 years, with comprehensive plans developed on either an annual or quinquennial basis.

4.4 Monitoring & Evaluation and Reporting

The company consistently conducts monitoring, evaluation, and reporting activities targeting stakeholders in the areas where the recovery program is implemented. This is to secure legitimacy for the areas that have undergone recovery.

Table 5. Implementation of Recovery and Compensation Plan

Table 5. Implementation of Recovery and Compensation Plan

No.	Distribution Target for the Recovery and Compensation Plan	Programme	Area (ha)	Nominal (IDR)	PIC and Relevant Stakeholders	Funding Mechanism	Timeline	Priority Level
Within PT IJS Concession								
1	Riparian Buffer Zone	Enrichment and reforestation of riparian area	340.723		Sustainability Division	PT IJS		Priority 1
Outside PT IJS Concession								
1	Bupul Nature Reserve (NR)	Strengthening NR function: 1. Facilitating biodiversity inventory training 2. Facilitating biodiversity management: strengthening biodiversity database 3. Facilitating the enhancement of area security: patrols, prevention measures of forest and land fires (Karhutla) 4. Facilitating local community empowerment: Community awareness raising on conservation Community livelihood improvement; local economic structure enhancement	81,996.82		Sustainability Division	PT IJS		Priority 1

5 Activity Description

5.1 Within PT IJS Concession

The activities outlined in the recovery plan are executed within the PT IJS concession, focusing specifically on the riparian area. The company conducted a High Conservation Value (HCV) assessment in 2015, resulting in the conservation of the riparian area within the concession. As part of the project aimed at addressing liabilities, PT IJS is obligated to plant and enrich vegetation in the degraded riparian areas within the concession.

The recommended vegetation for enrichment includes species listed in the HCV assessment, particularly those categorized as Critically Endangered (CR) or Endangered (ER). Enrichment of the riparian areas begins with the development of buffer zones. These riparian buffer zones serve the dual purpose of preserving the natural state of the riparian area and acting as natural firebreaks to prevent the spread of burned areas. The table below provides detailed information on ecosystem recovery activities.

Table 6. Detailed Ecosystem Recovery Plan related to HCV in the Concession

Overview of Remediation	Activity Details	PIC and Implementation Team	Measurable Indicator	Timeline	Cost
Mapping of Riparian Buffer Zone	Mapping of Degraded Area.	Sustainability Division, GIS Team, Recovery Team	Riparian area boundaries for remediation are in place, installation of boundary signs.	Year 1-2	
	Development of a management and monitoring plan for designated riparian area and swamp remediation areas, including management aspects, such as delineation of riparian area and swamp boundaries. Sampling for water quality monitoring.	Sustainability Division, GIS Team, Recovery Team	Approved and signed management and monitoring plan document	Year 1-2	
Planting and Maintenance of Vegetation in targeted remediation area	Preparation of Nursery	Sustainability Division, Recovery Team	Nursery Profile	Year 3-4	
	Collection of seedlings from the nearest forest area	Sustainability Division, Recovery Team	Nursery database	Year 3-4	
	Development of a database of plant species, including information on their protection and distribution status	Sustainability Division, Recovery Team	Nursery database	Year 3-4	
	Seedling management: Maintenance and monitoring	Sustainability Division, Recovery Team	Nursery report	Year 3-4	
	Tree planting and marking	Sustainability Division, Recovery Team	Planting report	Year 3-12	
	Census of each planted tree to identify mortality and sample growth rate based on the species	Sustainability Division, Recovery Team	Annual mortality report	Year 3-12	
	Replacement of dead vegetation	Sustainability Division, Recovery Team	Tree database	Year 3-12	
	Incorporation of remediation vegetation monitoring database.	Sustainability Division, Recovery Team	Monitoring database is incorporated	Year 3-12	
The company is prepared to implement fire prevention and response measures	Preparation of annual map of fire risk Development of fire management procedure (SOP) Information dissemination and training on fire management and prevention	1. Sustainability division is responsible for preparing annual map of fire risk and SOPs 2. Estate and security staff are responsible for training and implementation.	1. Annual map of fire risk 2. Completion of fire prevention procedure (SOPs) 3. Information dissemination and training on fire management and prevention	Year 3-25	

Overview of Remediation	Activity Details	PIC and Implementation Team	Measurable Indicator	Timeline	Cost
Monitoring and evaluation of the remediation	1. Monitoring and evaluation of vegetation growth and mortality rate. 2. Monitoring of land cover in remediation area. 3. Periodic measurement of water quality.	Sustainability Division, GIS Team, Recovery Team	A. Percentage of growth, diameter, height, and mortality rate B. Drone-based mapping of forest cover percentages C. Measurement of water quality after planting	Year 4-25	
Development	Review and evaluation of remediation area management, including the entire remediation process and schedule	Sustainability Division, Recovery Team	Annual Report for reviewing progress and improvement recommendations	Year 4-25	
	Review of riparian area management and relevant SOPs	Sustainability Division, Recovery Team	Revision of riparian area management and supporting SOPs	Year 4-25	
	Review of remediation area management process	Sustainability Division, Recovery Team	Management plan revision	Year 4-25	

5.2 Outside PT IJS Concession

In addition to the recovery programme within the PT IJS concession, it is deemed necessary to extend them beyond the concession area, as the impacts of liabilities may extend to areas outside the concession.

The recovery programme planned and offered by YAHYWA, as the developer of recovery plan, is outlined as follows.

- Bupul Nature Reserve (NR) in Merauke. It has an approximate area of 81,996.82 ha. It is located in two subdistricts (Merauke and Muting). A distinguishing feature of Bupul NR is the presence of bamboo forests, which serve as the boundary between rainforest and savannah. These forests are intermixed with eucalyptus and tristania trees. Endemic wildlife within the reserve includes species such as *Aplonis mystacea*, *Ptilinopus wallacii*, and *Micropsitta keiensis-keiensis*. In addition, species such as *Planigale novaeguineae*, *Sminthopsis virginiae*, *Isoodoi macrouru*, and *Maecropus agilis*¹ can also be found in the reserve.

Activities conducted within the Bupul NR are focused on strengthening its ecological functions, which include the following programmes.

- a. Facilitation of biodiversity inventory training.
- b. Facilitation of biodiversity management by strengthening biodiversity database.
- c. Facilitation of the enhancement of area security: patrols, prevention of forest and land fires (Karhutla).
- d. Facilitation of community empowerment in the surrounding areas through activities such as information dissemination and training on conservation, strengthening local economic institutions, and improving community income.

¹ Directorate of Nature Conservation Patterning and Information (2016). [Informasi 521 Kawasan Konservasi Region Maluku-Papua](#) (PDF). Bogor: Directorate of Nature Conservation Patterning and Information Disseminating. pages 50

Table 7. Detailed Ecosystem Recovery Plan beyond Concession

Activity Overview	Activity Details	PIC and Implementation Team	Measurable Indicator	Timeline	Cost
Bupul NR Protection Plan	Information Dissemination of PT IJS Recovery Plan	PT IJS and Recovery Team	Activity Report	Year 1	
	Site Licensing of Recovery Plan	PT IJS and Recovery Team	Activity Report	Year 1	
	Merauke Natural Resource Conservation Center (BKSDA) and Bupul NR Memorandum of Understanding (MoU) on Recovery Plan Activity	PT IJS and Recovery Team	MoU Signing	Year 1	
Supports from PT IJS:					
Biodiversity inventory training	Bupul NR's Human Resource Inventory	PT IJS and Recovery Team	Activity Report	Year 2-4	
	Inventory of Bupul NR's Human Resource Training	PT IJS and Recovery Team	Activity Report	Year 2-4	
	Inventory of training needs at Bupul Nature Resource	PT IJS and Recovery Team	Activity Report	Year 2-4	
	Facilitation of training needs for Bupul Nature Resource's human resource	PT IJS and Recovery Team	Activity Report	Year 2-4	
Facilitation of biodiversity management Database enhancement	Identification and protection of critical habitat for biodiversity	PT IJS and Recovery Team	Activity Report	Year 2-4	
	Supports for damaged ecosystem restoration	PT IJS and Recovery Team	Activity Report	Year 2-4	
Facilitation for strengthening site surveillance: patrols, preventive measures	Fire management training for local community and Bupul NR's personnels	PT IJS and Recovery Team	Activity Report	Year 2-4	
	Facilitation for Fire-aware Village establishment	PT IJS and Recovery Team	Activity Report	Year 2-4	

Activity Overview	Activity Details	PIC and Implementation Team	Measurable Indicator	Timeline	Cost
Facilitation for local community empowerment: information dissemination and training on conservation Community livelihood improvement; local economic structure enhancement	Preparation of annual map of fire risk Development of fire management procedure (SOP)	PT IJS and Recovery Team	1. Annual fire risk map preparation 2. Hotspot map	Year 2-4	
	Information dissemination and training on fire management and prevention	PT IJS and Recovery Team	Activity Report	Year 2-4	
	Identification of local economic potentials (Non-timber forest products (NTFPs))	PT IJS and Recovery Team	Activity Report	Year 5-25	
	Facilitation for strengthening local economic institutions	PT IJS and Recovery Team	Activity Report	Year 5-25	
	Facilitation of capacity building for local independent economy	PT IJS and Recovery Team	Activity Report	Year 5-25	
Monitoring and evaluation of the remediation	1. Monitoring and evaluation of recovery plan 2. Monitoring of land cover in remediation area.	PT IJS and Recovery Team	1. Proficiency in flora/fauna inventory 2. Proficiency in creating and inventorying Bupul NR database	Year 5-25	
Development	Review and evaluation of Remediation Area Management, including the entire remediation process and schedule	PT IJS and Recovery Team		Year 5-25	
	Review of relevant conservation management and SOPs	PT IJS and Recovery Team	SOPs Revision	Year 5-25	
	Review of remediation area management process	PT IJS and Recovery Team	Revision of management	Year 5-25	

6 Risks, Monitoring and Evaluation

6.1 Risks and Risk Mitigation

The project shall adhere to the Performance Standards outlined by the International Finance Corporation/IFC (2012) for the management of environmental and social risks and impacts. These risks encompass potential reversals stemming from internal factors (e.g. local community capacity and the inability to control illegal logging), external factors (conflict, political fluctuations, and economic crises), as well as natural disasters (floods, landslides, and droughts).

Key risk factors to the Bupul NR include:

- a. forest degradation due to uncontrolled timber production; Fees paid by illegal loggers have historically provided a significant source of cash income for landowners; and
- b. Land clearance for small-scale farming, which is expected to expand if left unmanaged.
- c. Uncontrolled hunting and trapping.

6.1.1. Internal Risks

Based on the management and monitoring of HCV areas in PT IJS, the challenge is the province's existing social and legal constraints, which demand extraordinary effort to maintain. Risk mitigation and management will be established in a participatory approach. Prioritizing local community, government agencies, and key stakeholders' involvement will be the focus of each project stage. The project will include the establishment of a grievance mechanism to ensure that it meets the aspirations of local communities. Sources and impacts of risks will be discussed with the community on a regular basis. We are convinced that our approach, which emphasizes stakeholder participation and builds trust through participatory processes, will help to mitigate risks and handle potential conflicts.

6.1.2. Illegal logging

Forest degradation due to unregulated illegal logging poses a significant risk to the forest conservation area. It is notoriously difficult to tackle and control. To effectively combat this threat, it is imperative to have a thorough understanding of the local context and the magnitude of the issue, as well as to acknowledge that illegal logging heavily relies on the complicity of organized crime groups and politicians. It's also important to recognize the connections between illegal logging and other issues, particularly the need for a source of income. In collaboration with local communities and project partners, the company intends to address this issue through the following.

- a. Assessing the threats in the proposed conservation area and the surrounding landscapes with meticulous attention to detail to determine the full scope of the issue.
- b. Disseminating information of the issue and its approach for solutions.
- c. Monitoring illegal logging on a regular basis in collaboration with the local community.
- d. Discussing law enforcement with local communities, facilitating agreements to regulate and manage timber harvesting, and supporting their implementation. If possible, organizing a community-wide call for improved law enforcement.
- e. Supporting alternative income-generating activities

PT IJS will not engage the Indonesian National Armed Forces (TNI) or the Indonesian National Police (POLRI) to enforce the law at any time during this project. The company seeks to encourage law enforcement in illegal logging cases with the help of local communities, as well as to assure them that achieving a sustainable livelihood is feasible without allowing illegal logging to occur. The conservation management plan will include discussions and continued development of approaches to reduce the threat of illegal logging in the landscape.

6.1.3. Uncontrolled hunting and trapping.

Since forests still cover a large portion of Papua, several species continue to be top targets for protein. Uncontrolled hunting can lead to local extinction and, in the case of rare species, total extinction. Trapping live birds for sale, such as cockatoos, also poses a risk to biodiversity in the province.

6.1.4. Fire Mitigation and Prevention

The company applies fire prevention and management procedures to mitigate land and forest fire within and around its concession. The company's concessions include firefighting infrastructure and equipment, as well as on-site firemen. Field personnel are also trained to be aware and ready to respond to fire incidents in a timely and decisive manner. Based on SOP No. EHS-005 on Fire Handling and Management, the following fire prevention and mitigation measures include:

- a. collaboration and awareness-raising among multi-stakeholders, including government agencies and local communities;
- b. providing information on risk and impact of land fires, preventive measures, fire emergency response plans to employees and local communities;
- c. Regular inspection of firefighting equipment on a regular basis to make sure they are sufficient and ready to extinguish fires.
- d. Training for firefighting emergency response teams to ensure they are prepared to deal with any fire incidents.
- e. Rapid response to identified hotspots within and around concessions.

6.2 Monitoring and Evaluation

The execution of activities and outcomes will be reviewed regularly to determine whether the programme's targeted impacts have been met, as well as to update corrective actions and revise/adjust the management plan in response to the monitoring outcomes. During monitoring and evaluation, risk identification and management strategies will be reviewed to address new threats that are not successfully monitored by existing procedures.

Recovery Plan monitoring will also look at work performance and duration to ensure that it is on track, within budget, and meets the specified time frames.

Results will be monitored and validated using indicators set by competent parties (experts/academics) and PT IJS. Monitoring procedures should be done consistently to enable a long-term comparison, (although new monitoring processes can be introduced, if needed). For example, if monitoring data indicates that vegetation reserves in riparian area are declining or failing to improve, or if expected benefits in biodiversity or water quality are not materializing, the management plan should be modified.

6.3 Reporting Plan

Prior to the start of monitoring, a system for analysing and reporting monitoring findings should be set in place to ensure that they are correctly stored, evaluated, reported, and followed up on as needed.

a. Quarterly Management Report

Quarterly reports will be prepared and submitted to the head office.

b. Annual Report

The company will provide updates on the management plan's implementation and results annually. It outlines activity progress and performance against all indicators specified in the project management and monitoring plan. This will inform annual activity and budget planning in the upcoming year.

7 Exit Strategy

The Recovery Plan project generally requires a relatively extended time, thus PT IJS needs to have an exit strategy or at least an overview of what success will entail, as well as roadmaps to sustainability and less external support.

The proposed exit strategy approach for the Bupul NR Conservation Area. Under this strategy, the responsibility for the program's activities is transferred to the Bupul NR and local communities. During program design and implementation, focus is placed on building institutional capacity so that the services delivered can be sustained by local organisations.

When establishing a phase-over exit strategy, numerous questions must be considered:

- a. How strong is the local ownership/commitment to continuing program activities?
- b. To what extent does the community value the program activities?
- c. What level of demand is there for "phased" services?
- d. Do community members, groups, and service providers have the expertise and skills needed to carry out program activities?
- e. Are local organisations carrying out phased activities equipped with sufficient institutional capacity and human resources?
- f. Are organisations in charge of carrying out phased operations resilient to shocks and changes in the political and social environment?
- g. Is there a feasible plan to generate the external resources required to carry out activities?

To ensure the long-term success of the project, the company considers five important strategies as follows:

- a. The implementation of collaborative governance into all aspects of forest management in the Bupul NR area. This will make partners be ready to take over the management. A joint agreement will be proposed between the government, non-governmental organisations (NGOs), and Indigenous Peoples who will be responsible manage the project.
- b. Support the government's facilitative function in assisting local communities in dealing with external threats beyond their control, such as the emergence of powerful business interests into the region.
- c. Maximise the government's regulatory role in community capacity building, for example, by assisting communities establishing new institutions through locally-based policymaking.

- d. Improve the successful development of strong sustainable businesses for Indigenous Peoples, including sustainable agriculture and fisheries, as well as ecosystem service-based businesses such as carbon, non-timber forest products (NTFPs), and ecotourism.
- e. Engage with green financing bodies and maintain the project profile through a creative communication process throughout the project to secure continual external support.

Management plans need to focus on conservation measures that strengthen the management capacity of customary forests, resulting in a stronger and more effective connection between local culture and forest conservation. Training activities will involve providing Indigenous Peoples with relevant experience, knowledge, and skills required for carrying out the plan in the future.



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