



ANJ



PT Austindo Nusantara Jaya Tbk.

Biodiversity Strategy

Published in 2023



Palm Oil Landscape at
SMM, Belitung Island.

The Company

PT. Austindo Nusantara Jaya Tbk. (ANJ) is an agribusiness company based in Indonesia that aspires to be a world-class agribusiness-based food company that elevates the lives of people and nature. Founded in April 1993 as PT. Austindo Teguh Jaya, the Company adopted its current name in 1998 and became a public company in 2013.

We engage both directly and through subsidiaries in the production and sale of crude palm oil (CPO), palm kernel (PK), palm kernel oil (PKO), and other food crops such as sago and edamame. We also have a renewable energy unit that produces electricity from biogas to power one of our plantations in Bangka Belitung and supplies the State Electricity Company (PLN) as an Independent Power Producer. Our plantations are in a geographically diverse range of landscapes across the Indonesian Archipelago from North Sumatra, South

Sumatra, Bangka Belitung, West Kalimantan, Southwest Papua, to East Java. Our head office sits in Jakarta.

ANJ is committed to responsible business practices which require that we take into consideration ethical, environmental, and social factors when striving for profitability. Our value philosophy of integrity, respect for people and the environment, and continuous improvement is articulated in our Vision, Mission, and Values statement.

Abbreviation

ANJ	: PT Austindo Nusantara Jaya Tbk.	KAL	: PT Kayung Agro Lestari
ANJA	: PT Austindo Nusantara Jaya Agri	PPM	: PT Permata Putera Mandiri
ANJAS	: PT Austindo Nusantara Jaya Agri Siais	PMP	: PT Putera Manunggal Perkasa
SMM	: PT Sahabat Mewah dan Makmur	ANJAP	: PT ANJ Agri Papua
GSB	: PT Galempa Sejahtera Bersama	KAL	: PT Kayung Agro Lestari

Indonesia-Megadiverse Nation

Indonesia is among the most biologically diverse nations on Earth, ranking second behind Brazil in terms of endemic species and third in terms of total species richness (Myers et al. 2000; Mittermeier et al. 2004). According to the Convention on Biological Diversity profile of Indonesia, there are 7 major biogeographic regions, centered on the major islands and their surrounding seas. Conservation International considers Indonesia to be one of the 17 “megadiverse” countries, with 2 of the world’s 25 “hotspots”, and 24 of Bird Life International’s “Endemic Bird Areas”. It also possesses 10% of the world’s flowering species (estimated 25,000 flowering plants, 55% endemic). For fauna diversity, about 12% of the world’s mammals (515 species) occur in Indonesia, ranking it second, after Brazil, at the global level. About

16% of the world’s reptiles (781 species) and 35 species of primate place Indonesia fourth in the world. Further, Indonesia supports the third largest expanse of tropical forest in the world with 92 million hectares, behind Brazil (497 million Ha) and the Democratic Republic of Congo (126 million Ha) (FAO 2020). Indonesia’s species-rich forests support some 37,000 types of vascular plant. These include more than 400 species of dipterocarps, the most valuable commercial timber trees in Southeast Asia, and the world’s greatest diversity of palms. The forests also provide a centre of diversity for a variety of unique plant taxa, such as the carnivorous pitcher plants (*Nepenthes*) and members of the genus *Rafflesia*, of which one species, *Rafflesia arnoldii*, produces the world’s largest flower.

The Biodiversity of Sundaland, Wallacea and Papua

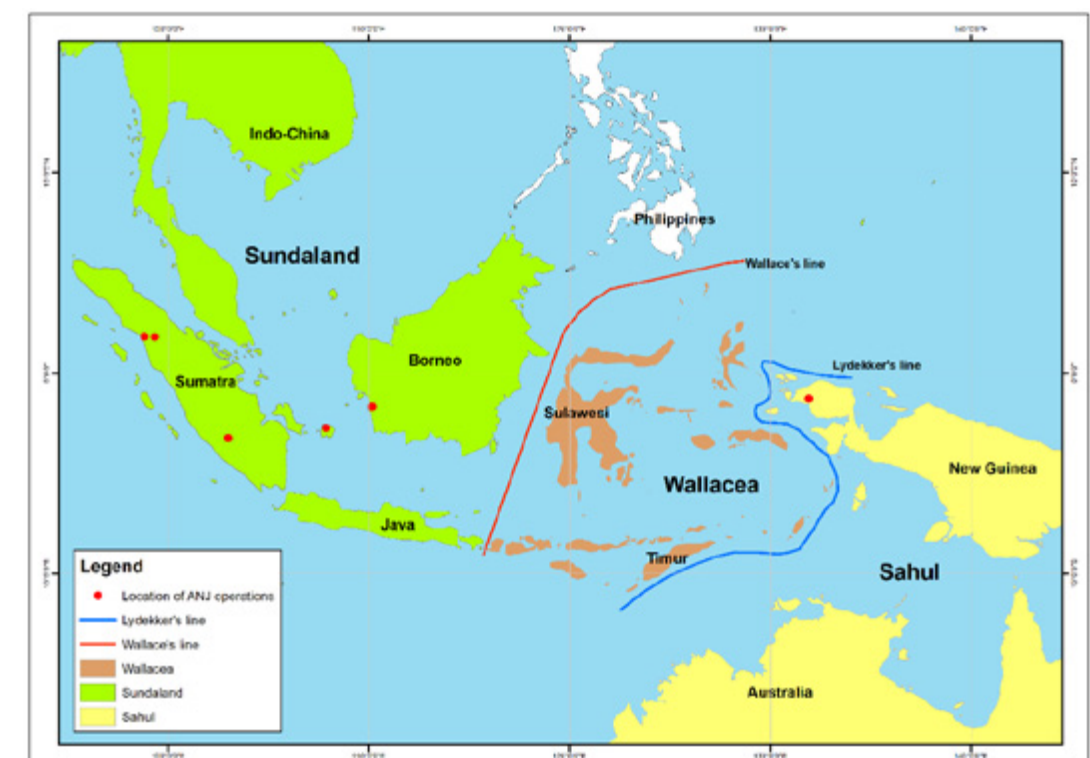
ANJ owns and manages seven oil palm concessions in a geographically diverse range of landscapes across the Indonesian Archipelago from North Sumatra, South Sumatra, Belitung Island, West Kalimantan to Southwest Papua. Indonesia is divided into different biogeographic zones, Sundaland, Wallacea and Papua, which originated with the nineteenth century naturalist Alfred Russel Wallace who recognized that the fauna of these three regions was strikingly different.

ANJ’s landbanks in Sumatra, Belitung and Kalimantan are located in the Sundaland Bioregion. Sundaland is among the most biologically diverse and endemically rich regions on Earth and is one of the biologically richest hotspots on Earth, holding about 25,000 species of vascular plants, 15,000 (60 percent) of which are found nowhere else. Of Sundaland’s more than 380 mammal species, over 172 are endemic to the hotspot. Borneo boasts the most endemic mammal species

of any island in the hotspot, with 25 species found nowhere else. Charismatic species of Borneo include the Asian elephant, Sumatran rhinoceros, banteng, Bornean orangutan, proboscis monkey, gibbons, sun bear, Bornean clouded leopard and numerous pheasants and hornbills. Of approximately 770 bird species that regularly occur in Sundaland, nearly 150 are endemic; Borneo alone supports nearly 30 endemic species, most of which are montane.

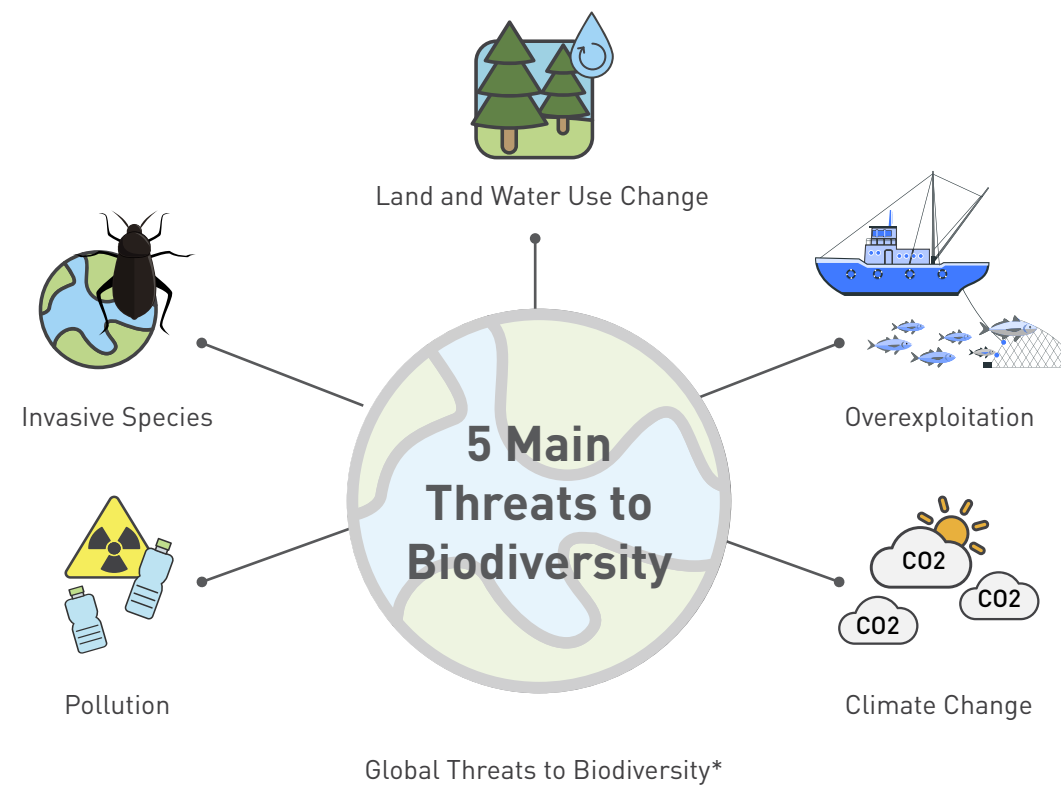
ANJ does not hold landbanks in the Wallacea region, which lies between Borneo to the west

and Papua New Guinea to the east, but it does own concessions in Papua, which is one of the world’s biodiversity hotspots, hosting incredibly high levels of biodiversity, much of which is unique to the region. This includes species typically with an affinity to Australian flora and fauna, including kangaroos, cassowaries, and cockatoos. This exceptional level of biodiversity and endemism reflects evolutionary diversification and radiation over millions of years in one of the world’s most geologically complex and active regions.



Wallacea Map

Threats to Biodiversity



Globally, biodiversity is under threat due to a combination of human population growth and resource use. The main threats to biodiversity are habitat loss, overharvesting, invasive species, climate change, and pollution. These threats are responsible for species extinctions and ecosystem degradation.

In Indonesia many terrestrial and marine species and their habitats are threatened by human activities. In terrestrial ecosystems, the major disturbances include logging, forest fires, and deforestation due to agriculture. Adverse climactic conditions related to ENSO events

have also been implicated in the occurrence of large-scale forest fires. Although a number of measures have been undertaken to stem the loss of marine and terrestrial habitats, these have often proved insufficient. To ensure the maintenance of a healthy natural environment in Indonesia, it is important to address the causes of habitat destruction and implement effective measures to mitigate the damage.

The pressures currently facing Indonesia's biodiversity have drawn high-level concern from the international community. Importantly, the International Union for the Conservation

of Nature (IUCN) has listed a high proportion of Indonesia's flora and fauna as Threatened with global extinction. The 2020 IUCN Red List of Threatened Species lists 14,710 Indonesian species, of which 7 are Extinct, 402 are Critically Endangered and 727 Endangered, indicating a high likelihood of extinction in the near future unless threats are effectively abated.

Biodiversity loss is a key priority for humanity and requires urgent action. The historic Kunming-Montreal agreement adopted by 196 countries at COP15 in December 2022 has put the spotlight on the level of action needed

to address the biodiversity crisis (CBD,2022). The new Global Biodiversity Framework (GBF) reinforces the necessity for all sections of society and all sectors to work together to halt and reverse nature loss by 2030. Central to this is the role of business, as set out in Target 15 of the Framework. For the first time in a multi-lateral agreement, governments have explicitly committed to require all large and transnational companies and financial institutions to assess and disclose their risks, impacts and dependencies on nature, through their operations, supply and value chains, and portfolios.

Our Impact

ANJ acknowledges that agricultural expansion is recognized as the leading cause of biodiversity loss. This has led to international concern regarding the environmental impact of oil palm as production expanded across the Tropics. Oil palm grows best in low-lying tropical areas with high rainfall, which equates to a zone naturally occupied by moist tropical rainforests, and the Earth's most biologically rich and endangered terrestrial ecosystems. Efforts to mitigate the impacts of oil palm expansion are the result of civil society's push

for environmental responsibility, third-party certification and corporate social responsibility (CSR). This demands biodiversity protection as well as addressing other concerns such as social welfare.

The largest environmental and social impacts are generally experienced in the plantation development phase when, depending on the location, the land clearing process can result in biodiversity loss, habitat fragmentation and degradation. Once operational, plantation



*J Reference: Kate Berrisford. 5 Main Threats to Biodiversity. 2021

activities also have the potential to cause pollution and contamination of soils and water due to the application of chemicals such as fertilizers, herbicides, pesticides, or rodenticides. Wastewater from palm oil mills can potentially leach into rivers while boilers release smoke, dust, and noise. Secondary impacts of plantation development often involve increased human and economic activity as roads and new infrastructure improve access to previously inaccessible areas. This may have positive impacts on the local economy, but also negative impacts on biodiversity and carbon emissions as lands and forests are cleared either legally or illegally to build residential areas and facilitate new agricultural activities, as well as logging, hunting, and poaching. We are aware that biodiversity-related impacts are not only a result of our own activities but also those of our third-party suppliers and other entities downstream of the value chain.

Negative impacts associated with oil palm development need to be considered in relation to other oil crops and in the context of growing global demand for oils and fats. Oil palm has higher yields than most other oil crops and thus requires less land, while fertilizer needs of oil palm are also low compared to other crops. Furthermore, oil palm is a perennial crop grown in 25-year cycles. Compared to annual crops such as soybean or rapeseed, oil palm provides more ecological opportunities for other species, and thus biodiversity in oil palm is relatively high, especially in estates where natural ecosystems have been protected.



The above pictures were all taken by citizen scientists involved in PENDAKI at ANJ Group’s sites.

Biodiversity Values

We acknowledge that we operate in areas of high biodiversity value. All of our estates contain areas classified for their High Conservation Values and many of our estates are located near to designated conservation areas as defined in the Ministry of Environment and Forestry’s (MoEF) Protected Area System and/or classified as protected areas by the International Union for the Conservation of Nature (IUCN), see Table below.

Operational Site	Province	Regency	Geo Location		HGU Area (Ha)	Sector	Nearest Protected Area	IUCN Protected Area Category	Distance (km)
			Lat	Long			National Legislation (MoEF)		
ANJA	North Su-matra	North Padang Lawas	1°28'07"N	99°55'37"NE	9,465	Palm Oil	Batang Gadis National Park	II	57
ANJAS	North Su-matra	South Tapanuli	1°9'36"N	99°9'16"E	9,182	Palm Oil	Siondop Protected Forest	-	adjacent
SMM	Bangka Belitung	East Belitung	2°56'17"S	107°52'57"E	16,277	Palm Oil	Senusur Sembulu Protected Forest	-	4
KAL	West Kalimantan	Ketapang	1°26'49"S	110°13'41"E	10,920	Palm Oil	Gunung Palung National park	II	2
GSB	South Su-matra	Empat Lawang	3°44'10"S	102°45'28"E	12,800	Palm Oil	Nature Park Bukit Kaba	V	15.4
PPM	Southwest Papua	South Sorong	1°54'15"S	132°21'19"E	32,025	Palm Oil	Suabor Protected Forest	-	3.5
PMP	Southwest Papua	South Sorong & Maybrat	1°50'17"S	132°28'18"E	22,678	Palm Oil	Suabor Protected Forest	-	adjacent
ANJ	Southwest Papua	Maybrat	1°43'07"S	132°32'33"E	36,506	Palm Oil	Suabor Protected Forest	-	adjacent
ANJAP	Southwest Papua	South Sorong	1°57'28"S	132°13'50"E	40,000 (IUPH-HBK-Sagu)	Sago	Suabor Protected Forest	-	adjacent

- Notes:
- IUPHHBK-HA: Izin UsaPemanfaatan Hasil Hutan Bukan Kayu - Hutan Alam (Business License for the Utilization of Non-Timber Forest Products - Natural Forest)
 - IUCN Protected Area Categories are used to classify protected areas.
 - Category Ia : Strict Nature Reserve
 - Category Ib : Wilderness Area
 - Category II : National Parks
 - Category III : Natural Monument or Feature
 - Category IV : Habitat/Species Management Area
 - Category V : Protected Landscapes or Seascapes
 - Category VI : Protected Area with Sustainable use of Natural Resources

The overall area set aside for conservation within our concessions as of 2022 is 97,682.31 Ha, see Table below. These HCV areas are managed in partnership with the local government and community. Conservation experts and relevant nongovernmental organizations (NGOs) are involved in the initiatives. Based on objective expert assessments, our conservation initiatives strive to conserve, if not expand, biodiversity and species richness in our conservation areas. In 2022, we have been working to develop specific biodiversity targets focusing on key species in our conservation areas.

Operational Site	Conservation Area (Ha)	Concession Area (Ha)			% of total Concession Area
		Nucleus	Plasma	Total	
ANJA	349.47*	9,465.00	-	9,465.00	3.69%
ANJAS	1,464.03	9,182.00	157.50	9,339.50	15.68%
SMM	1,360.09	16,277.00	948.10	17,225.10	7.90%
KAL	3,973.73**	10,920.12	2,958.12	13,878.24	28.63%
GSB	1,373.00	12,800.00	-	12,800.00	10.73%
ANJ	36,505.93	30,515.75	5,990.18	36,505.98	100%
PMP	17,131.74	18,860.30	3,818.11	22,678.41	75.54%
PPM	27,374.32	26,570.70	5,454.48	32,025.18	85.48%
ANJAP	8,150.00		40,000.00	40,000.00	20.38%

* Conservation Areas were added at ANJA
** 129.21 Ha of conservation areas at KAL was added as self-declared conservation

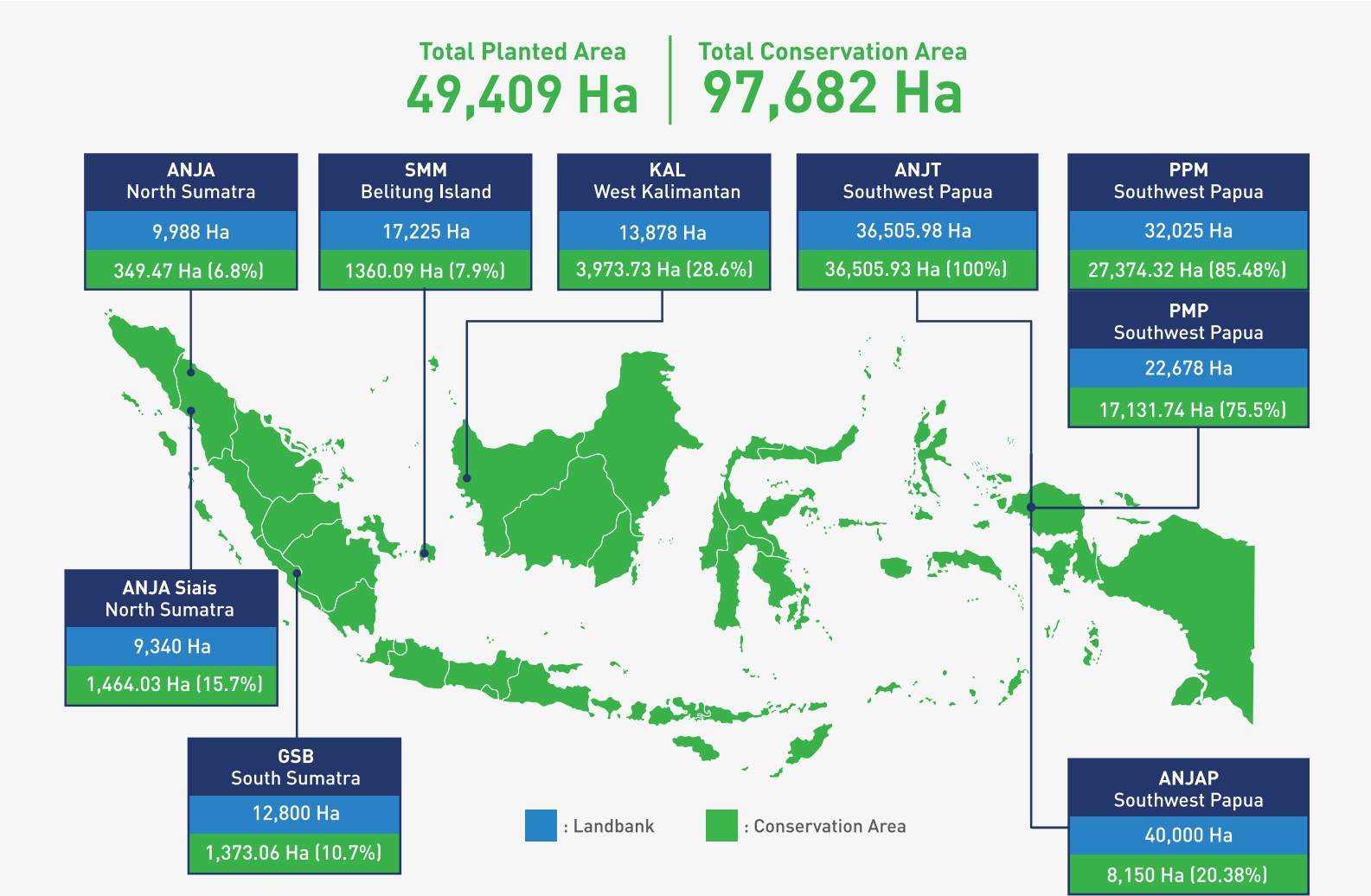
Biodiversity surveys have resulted in the reliable identification of at least 732 species of fauna and flora across our oil palm and sago concessions and in protected natural ecosystems within these areas. Of these fauna species, at least 7 are Critically Endangered including the Orangutan (*Pongo pygmaeus*), Pangolin (*Manis javanica*), Helmeted Hornbill (*Rhinoplax vigil*), and Black-spotted Cuscus (*Spilogiscus rufoniger*), while 26 species of fauna are considered to be Endangered, including some turtle species, primates, and otters. We have recorded 7 Critically Endangered and 12 Endangered species of flora species all from the class Magnoliopsida. These numbers are indicative only, because the more we survey, the more species we will discover. The key message,

however, is that our areas of operation contain species that are highly threatened and require careful management to ensure that these populations are maintained.

There are numerous examples of the rich biodiversity found in our concessions. For example at our ANJAS estate in North Sumatra, which is adjacent to a designated protection forest, and includes riparian buffer zones and forested areas, species found include the Sambar Deer (*Rusa unicolor*), Great Argus Pheasant (*Argusianus argus*), and rare nepenthes (*pitcher plants*). On Belitung Island, the conservation area at our SMM estate is mostly composed of riparian areas planted with forest and fruit plants as well as the Balok forest, a habitat for

the Tarsier (*Cephalopachus bancanus saltator*), the smallest primate in the world. We involve the local community in Belitung to manage the forest through a variety of initiatives such as forest patrols, ecotourism, and education. At our KAL estate in West Kalimantan, in the Essential Ecosystem Area we collaborate closely with International Animal Rescue Indonesia, the Natural Resources Conservation Agency of the Indonesian Government (BKSDA), and independent environmental researchers to protect the habitat of orangutans. Meanwhile, in Southwest Papua, we discovered more than 58 fauna and 25 flora species on the IUCN Red List including rare orchid and bird species such as the Twelve-wired Bird of Paradise (*Seleucidis melanoleucus*).

Management of high biodiversity values in our concessions is primarily done through protection of areas of High Conservation Value (protected forest and riparian zones), where hunting and poaching, illegal logging and fire are key threats that we are effectively abating. Based on our species surveys we realize that effective wildlife management requires that we manage our entire estate for biodiversity, because many species also make use of planted oil palm areas, waterways, and sedimentation ponds. It is evident that our wildlife and threat management is increasing the presence of species that are overhunted elsewhere, such as hornbills, magpie robins, and hill mynahs.



Data per December 2022



Belitong Tarsier
(*Cephalopachus bancanus saltator*)

Biodiversity Risk

On an annual basis, ANJ reviews and reports on the material topics or risks which have materiality for the business.

Our material topics are aligned with the environmental and social impacts of our operations as well as with the concerns of stakeholders. In 2022, greenhouse gas emissions (GHG) emissions and carbon footprint remained ANJ's highest material risk, followed by protecting forests and biodiversity, and supply chain practices. The material topics determine our strategic priorities and commitments and are pivotal to operating sustainably. All our strategic priorities have associated time-bound targets which we review annually.

We recognize that for our business, biodiversity loss presents physical, regulatory, financial and reputational risks. Monitoring and managing biodiversity risks forms a key part of our business strategy. Biodiversity risks can change from year to year depending on the effectiveness of our on the ground management, prevailing

weather and climatic conditions, human-wildlife conflict, and third-party activities in the wider landscape in which we operate. We anticipate risk and have management in place that reduces these risks. We monitor the effectiveness of our management interventions through patrolling of our conservation areas, and with our citizen science based biodiversity monitoring system (PENDAKI). Weather and climate events present a risk to biodiversity in our concession areas and we mitigate this risk for example through our forest fire monitoring and prevention program, as well as through engagement with surrounding communities on fire prevention particularly in peatland areas. We also implement flood prevention strategies through the construction of river embankments in estates where there is high flood risk, which negatively affects our plantations and conservation areas.



Pacific Golden Plover
(*Pluvialis fulva*)

Foundation of the Biodiversity Strategy

This Biodiversity Strategy presents our overall approach to avoiding, minimizing and managing impacts and implementing positive outcomes for biodiversity in our areas of operation and the wider landscape. The Strategy presents our vision, fundamental principles, key success factors and core programs for achieving the vision.

Company Values

The Biodiversity Strategy is founded on our Company Values. ANJ is committed to responsible business practices which require that we take into consideration ethical, environmental, and social factors when striving for profitability. Our value philosophy of integrity, respect for people and the environment, and continuous improvement is articulated in our Vision, Mission, and Values statement.

Our Corporate Vision is to be a world-class agribusiness-based food company that elevates the lives of people and nature.

Our Corporate Missions are:

- People and nature oriented: People and nature as the North Star of the Company, guiding every aspect of all business activities.
- Striving for world-class excellence: A continuous quest to comply with and exceed local and global standards, exercising good corporate governance.
- Sustainable growth for prosperity: Achieving widespread economic prosperity while being environmentally responsible.
- Integrity: Doing the right thing at all times, in all circumstances.

Sustainability Policy

The Biodiversity Strategy is guided by the ANJ Sustainability Policy which is our commitment to Sustainable Development in our business. The Sustainability Policy was last updated on October 31, 2019 (ANJ, 2019), making our commitments clear with regards to avoiding and minimizing the impacts of activities on communities and the environment in compliance with the Roundtable on Sustainable Palm Oil (RSPO) Principles & Criteria (P&C 2018) and other international benchmarks. It is formulated in a way that supports the United Nations 17 Sustainable Development Goals (SDGs) and links them to our sustainable development approach. The Sustainability Policy is complemented with an Implementation Guidance that can be revised for continuous improvement or to reflect

any changes in the RSPO P&C. In 2021, the Sustainability Policy Implementation Guidance was updated to add more clarity in several sections of the document (ANJ, 2021).

The guiding principles of Corporate and Social Responsibility, Transparency, and No Exploitation are present throughout the entire policy. The foundation of the policy has three key elements: (1) Long-term economic viability (Prosperity), (2) Human well-being (People), and (3) Stewardship of natural resources and management of the environment (Planet). This policy aims to balance economic prosperity, the well-being of people, and environmental stewardship and management.



Aek Rundung Waterfall at ANJAS, North Sumatra

Specifically related to biodiversity, the Sustainability Policy makes the following commitments:

Protection of the Environment

ANJ's sustainable development approach considers the social, environmental, and economic needs. We take an integrated approach conserving high value areas within and adjacent to our operation sites.

We aim to achieve these targets through the following:

- Responsible development of new areas incorporating an integrated landscape approach;
- Total protection and conservation of independently identified High Conservation Value – High Carbon Stock (HCV-HCS) areas and primary forest and protection of all rare, threatened and endangered species;

- No land clearing for oil palm in independently identified HCV and HCS areas following RSPO protocols. Development of identified HCS areas pertaining to legacy cases will strictly follow RSPO's requirements and protocols;
- No new development in peat areas of any depth and conservation of peatland;
- Commitment to reducing Greenhouse Gases (GHG) emissions;
- Zero Land Burning;
- Precaution when developing on fragile soils, slopes and water ways (including river basins);
- Implementing Integrated Pest Management;
- Minimizing the use of pesticides and non-organic fertilizer; and
- Effective engagement of the workforce in the monitoring and management of wildlife in our concessions.

Measuring Biodiversity

Biodiversity can be measured at many different levels including genetic, species, community, and ecosystem. One approach to measure biodiversity is to assess species richness of an ecosystem, which is the total number of distinct species within a local community. Another common way to measure biodiversity is to count the total number of species living within a particular area. Biodiversity may also be measured as the diversity of a region's endemic species which are restricted to one location; they do not occur anywhere else in the world.

Our conservation staff leads biodiversity monitoring, which is assisted by our employees and local communities through field surveys and camera trapping. The IUCN Red List, the Convention on International Trade in Endangered Species (CITES), and government regulations are used to identify and record species. Our conservation efforts are audited by third parties, such as RSPO and ISPO. From time to time external scientific experts assist in conducting surveys.

In 2019, we also launched the PENDAKI or *Peduli Keanekaragaman Hayati* (Caring for Biodiversity) citizen science program to improve our biodiversity monitoring capabilities. The PENDAKI system encourages employees to record any flora and fauna they observe while working in our conservation and plantation areas.



Biodiversity Targets

Biodiversity loss presents physical, regulatory, financial, and reputational risks. Businesses can improve competitiveness by responding to societal concerns and consumer preferences. Through setting science-based targets for nature, companies can play their part in halting biodiversity loss while improving business performance. On an annual basis we will review these targets and assess them against prevailing biodiversity risks and business priorities.

In 2021, we communicated our first publicly stated biodiversity targets (ANJ, 2022), which are:

- To maintain stable populations for species which trigger HCV.
- To achieve zero human-wildlife conflict in our areas of operation, related to IUCN Threatened and Protected Species, based on Indonesian regulations.

In 2023, we moved a step further by developing our first time-bound biodiversity targets. Certified oil palm production has long sought to comprehend the correlation between managed zones, preserved forests, and the prospects of safeguarded and endangered species. The task of constructing reliable biodiversity metrics remains a challenge, hindered by complexity and costs. Companies commonly rely on species lists to detect high conservation value species within their estates, which falls short of providing actionable insights. ANJ, facing similar obstacles, has turned to citizen science to overcome this conundrum through the PENDAKI initiative.

Our time-bound targets are:

- To have a robust biodiversity monitoring program in place by 2025
- To include biodiversity accounting of at least two business units into the reporting system by 2030

Prevost's Squirrel
(*Callosciurus prevostii*)



ANJ Biodiversity Vision

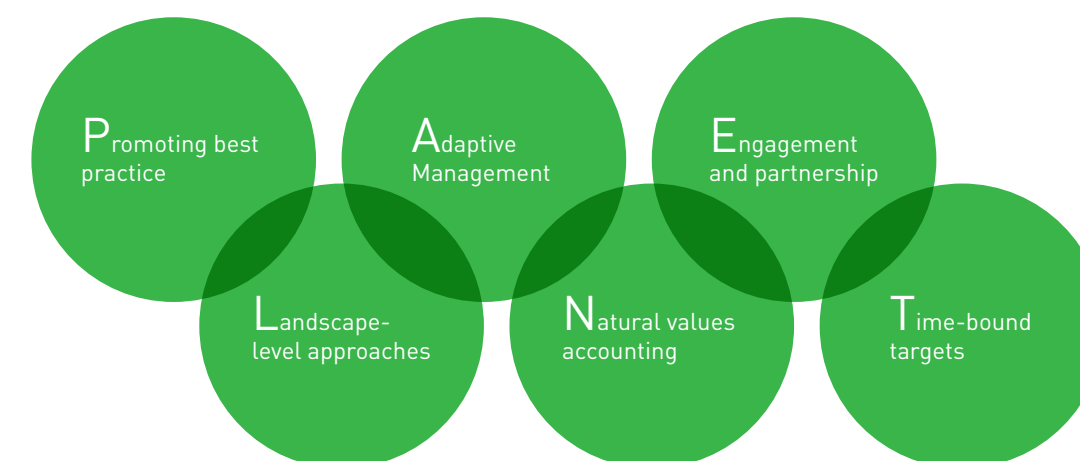
ANJ's Biodiversity Vision is to protect and enhance biodiversity in our areas of operation and the wider landscape through sustainable management practices and conservation efforts.

Fundamental Principles

We are guided by a set of six fundamental principles that involve being acutely aware of our biodiversity-related impacts. We apply the Mitigation Hierarchy by avoiding impacts where possible and minimizing the impact of our operations whilst recognizing opportunities to also contribute to better biodiversity outcomes outside the boundaries of our plantations in the larger landscape.

The Biodiversity Strategy aims to reduce threats to biodiversity, to manage identified risks, to

engage with employees, communities and other key stakeholders and build social capital, as well as to proactively support the development of knowledge in biodiversity conservation. We achieve these through engagement, partnership and collaboration with biodiversity professionals, government, the community, non-government organisations (NGOs), researchers and appropriate individuals as part of achieving a high standard of biodiversity and conservation management.



P

Fundamental 1 – Promoting best practice of biodiversity monitoring and management

- The focus of ANJ’s biodiversity management is the mitigation hierarchy, which, first of all, aims to avoid negative impacts, then to minimize any remaining impacts at the site and landscape level.
- ANJ recognizes that biodiversity values occur across the concessions, both in protected natural ecosystems such as conservation set asides and riparian zones, and developed and planted areas, which means that biodiversity monitoring and management has to be an integral part of estate management.
- ANJ adopts the innovative citizen-science-based PENDAKI method to engage large parts of the workforce in biodiversity monitoring and management. Unlike simple species presence lists, this approach generates reliable quantitative data on spatial and temporal trends in species occurrence, which we monitor to inform adaptive estate and protected areas management.

L

Fundamental 2 – Embracing landscape-level approaches that support and encourage positive biodiversity outcomes where we operate.

- ANJ engages with external stakeholders for management of biodiversity beyond concession boundaries at the larger landscape level, including neighbouring concessions, communities, and the government.

A

Fundamental 3 - Applying adaptive management through continuous improvement in biodiversity management and monitoring.

- ANJ will research and incorporate opportunities from other approaches to biodiversity management and implement improvement, replication, transferring knowledge and capturing the benefits.
- ANJ aims to develop in-house capacity whenever possible so that biodiversity monitoring can be fully carried out by company staff, thus generating greater buy-in and internal support and communication. This includes biodiversity data collection, data management, data analysis, and translation of data into actionable management recommendations.

N

Fundamental 4 – Acknowledging natural values provided by ecosystem services and wildlife to become part of our formal financial accounting process.

- ANJ recognizes that protecting natural ecosystems is not only a cost to the company but also has significant benefits. This includes water storage in protected peat forests, maintaining healthy soil biota, using natural pest control and pollination services, and accounting for rare, threatened and endangered (RTE) species as valuable company assets.
- ANJ aspire to develop an ecological accounting system that formally accounts for the values of ecosystem services and wildlife. This means that not only the costs of biodiversity management are included into the Company’s accounts, but also the benefits, measured as monetary and non-monetary assets.

E

Fundamental 5 – Fostering engagement and partnerships, both internal engagement with our employees and engagement with external stakeholders to raise awareness and concern for biodiversity conservation.

- ANJ engages and consults with local communities and key stakeholders to ensure their concerns and aspirations regarding biodiversity conservation are fully considered in decision-making. ANJ will form partnerships with industry, government and other stakeholders to contribute to biodiversity conservation.
- ANJ engages with internal stakeholders and develops induction and training materials so as to achieve leading practice;
- ANJ puts in place a communications plan to disseminate information about the activities and performance of the Biodiversity Strategy to internal and external stakeholders with a view to generating a more informed public view about the biodiversity context of responsible oil palm management.

T

Fundamental 6 – Setting time-bound measurable targets for biodiversity.

- Our methods allow us to set time-bound targets for biodiversity management, which are linked to Key Performance Indicators of key directors and managers within the company.
- Measurable and time-bound biodiversity targets will be developed for each estate based on local biodiversity priorities.
- Location-specific Biodiversity Management Plans will be developed that aim to meet biodiversity targets. The plans will capture habitat set-asides, vegetation management requirements and ecological connectivity, threat management, and local monitoring methods.

HCV Forest at KAL,
West Kalimantan





Nepenthes sumatrana

Key Success Factor

Our key success factors relate directly to our biodiversity targets:

1. To maintain stable populations for species which trigger HCV.
2. To achieve zero human-wildlife conflict in our areas of operation, related to IUCN Threatened and Protected Species, based on Indonesian regulations.
3. To have a robust biodiversity monitoring program in place by 2025.
4. To include biodiversity accounting of at least two business units into the reporting system by 2030.

1. Maintaining stable populations for species which trigger HCV

Species that trigger HCV are generally species that are concentrations of biological diversity including endemic species, and rare, threatened and endangered (RTE) species that are significant at global, regional or national levels. National regulation and RSPO Principles and Criteria require that ANJ protects or enhances these species. Species naturally fluctuate in abundance, however, depending on migration and availability of ecological resources.

ANJ therefore uses compound metrics of selected species for each concession and with different indicator values (e.g., forest quality, water quality, absence of poaching), and weighted for conservation importance based on IUCN Red List criteria. Each concession decides which species they will monitor and manage for and uses the compound metric to set a time-bound target. These metrics should be good indicators for the population stability of HCV species as well as for the ecological integrity of the entire concession and the landscape context in which it sits.

They provide immediate input into concession management when the metrics show a negative trend that require adaptive management interventions.

2. Achieving zero human-wildlife conflict

In human-dominated agricultural landscapes used by both people and wildlife, there is a high likelihood of conflict, for example, when wildlife feeds on or destroys crops. ANJ aims to achieve zero human-wildlife conflict for species which trigger HCV by employing SOPs on wildlife encounters in the concessions and by having a no-killing and no-harming policy for species triggering wildlife.

Some species need to be controlled because of the damage caused to oil palms and fruit. As much as possible, ANJ aims to use biological control methods to reduce the impacts of these species.

3. To have a robust biodiversity monitoring program in place by 2025

Since 2019, ANJ has spearheaded a pioneering strategy across seven oil palm estates, engaging over 1000 staff members in biodiversity data collection through PENDAKI. Incentives, including performance targets and awards, encourage contributions. This effort, combined with biodiversity teams and employees like mill workers, has amassed an impressive database of nearly 100,000 species records. Now, the focus shifts to advanced statistical techniques translating citizen science data into robust species trends to inform estate management.

For this ANJ has launched in 2023 a new app to monitor indicator species, facilitating trend analysis for crucial populations like orangutans and tarsiers. The new system

measures progress against baseline estimates and towards time-bound targets, fostering accountability. By incorporating our quantified biodiversity outcomes at the estate level into the company accounts, i.e., biodiversity accounting, we will transparently share our verifiable progress towards biodiversity targets.

4. To include biodiversity accounting of at least two business units into the reporting system by 2030

Recognizing the values of natural capital within ANJ's concessions is an increasingly important part of our business strategy. The health of our business requires that the ecological systems we work in are resilient and strong. We depend, among others, on healthy soils to produce good yields and natural water storage capacity to buffer our planted areas from floods and provide water during droughts. We also rely on natural pest control and pollination services. Maintaining the health of this ecological system is a cost, but also a significant benefit to our company.

ANJ is committed to piloting and rolling out the measuring and accounting systems that allow us to be transparent about ecological costs and benefits and how these relate to overall company functioning. Specifically, we will start piloting a Biodiversity Accounting program in one of our concessions in 2023, using the PENDAKI citizen science program to provide species trend data for 25 indicator species. We will subsequently scale up this program to other business units.

This way, we will be able to consistently and transparently value the biodiversity associated with our plantations and report this value in our company accounts by 2030.



The PENDAKI Program

Since 2019, ANJ has pioneered a new approach to collecting biodiversity information across its seven oil palm estates by engaging citizen science – a program called PENDAKI (short for *Peduli Keanekaragaman Hayati* – Caring for Biodiversity). Through a smart system of incentives ranging from key performance indicators, senior management instructions, and small awards, more than 1,000 company staff have voluntarily contributed information about the wildlife they encounter during their work. In addition to contributions from ANJ's biodiversity teams, this includes records from mill workers, security guards, drivers, and estate managers – all with an interest in and knowledge of biodiversity.

Through the program, a remarkable database of over 75,000 species records has been compiled of a total of more than 700 reliably identified species. This mostly includes birds and mammals, with fewer records for reptiles, amphibians, fish, insects and other species groups. Nearly 40% of these records were obtained in the planted oil palm areas, and the remainder in forest set-asides, freshwater areas and mill ponds, and near estate infrastructure.

ANJ is employing new statistical techniques that can translate opportunistically collected citizen science data into statistically robust species trends. This will provide us with the

tools to determine the trend in iconic species such as the Critically Endangered orangutan populations in our West Kalimantan estate, tarsier populations in Belitung, or birds of paradise in Southwest Papua. In turn, this will result in a much-improved ability to adapt our estate management to the needs of these species.

PENDAKI will provide the Company with the means to quantify progress towards time-bound biodiversity targets, against baseline population estimates. These baselines were already determined for key species such as orangutans in 2011, and for others they will refer to the citizen science baseline set in 2019. Because citizen science is cheap and technologically simple, the PENDAKI system can also be scaled up to our smallholder suppliers for which biodiversity monitoring is even more challenging than for the plantations.

We strongly believe that these new approaches to biodiversity management will set a trend towards greater accountability and transparency regarding the impact of oil palm management on threatened and protected wildlife, and also the role the sector can play in maintaining viable wildlife populations in multi-functional landscapes. This work is cutting edge, not just in oil palm but in the broader context of tropical agriculture.

Biodiversity Strategy Core Programs

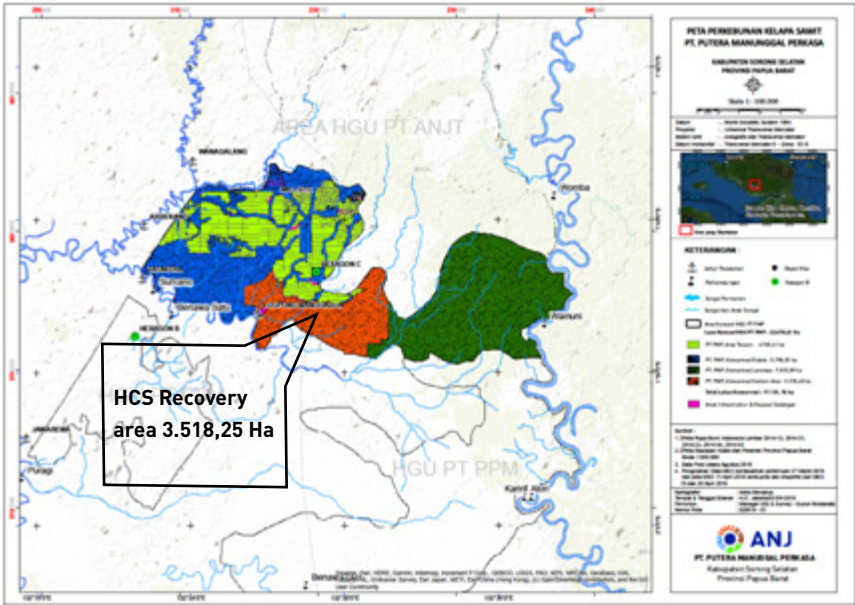
HCS Area Loss and Recovery Plan

In 2020, building on our Sustainability Policy commitments, we commenced implementation of a High Carbon Stock (HCS) Loss Declaration and Recovery Plan. We designed this voluntary initiative as part of our No Deforestation, No Peat, and No Exploitation (NDPE) and High Carbon Stock Assessment (HCSA) commitments. A study and an independent reassessment found that a total of 2,958.51 Ha of HCS area at SMM, PMP, and PPM were cleared for oil palm development between January 1, 2016, and December 31, 2018. To make up for this loss, our HCS Recovery Plan, which we started in April 2020, designated a 3,518 Ha consolidated block in one of ANJ’s concessions in Southwest Papua as a recovery site and a form of remediation. We added 8.3 Ha of forest to this block in 2021.

The HCS recovery area is an integral part of our strategy for protecting biodiversity and is one of the reason the site was chosen. The recovery site contains good quality natural habitat and biodiversity values, as well as the potential

to contribute to landscape-level conservation management. Two in-depth biodiversity surveys have been conducted since 2020 resulting in the identification of 161 species of fauna. Of these 161 species, 77 species are categorized as Rare, Threatened or Endangered status meaning that they are have either an IUCN status (CR, EN, VU), a CITES Appendix (I, II, III), a protected status under P.106 /2018 or are endemic to the island of Papua New Guinea. In terms of flora, as many as 325 plant species from 89 families have been identified in the recovery site. The majority of the species found are typical of lowland dry forests or a lowland dry forest variant interspersed with swamp areas.

We recognize that the recovery plan will require efforts on our behalf to ensure success for what is a challenging initiative to implement. We will involve, engage, and work closely with multiple stakeholders to achieve consensus and ultimately a successful outcome for our sustainability commitments.



Mitigation of Impacts

ANJ implements Standard Operating Procedures and related best management practices to minimize negative impacts on biodiversity in its High Conservation Value (HCV) forest areas as well as the planted areas. We have conducted a full assessment of our biodiversity impacts as articulated on an annual basis in our Sustainability Report. Furthermore, ANJ uses input from the PENDAKI program to inform decisions about HCV management, restoration of riparian and other corridors, and reduction of threats from hunting, fire and other

illegal activities.

In both HCV and degraded areas, we have reforestation projects to recover ecosystems and boost biodiversity values. In 2022, we reforested 80 in riparian buffer zones through our replanting projects in North Sumatra. These areas were previously palm plantations, but during our replanting program we decided to introduce forest plants instead as a food source and habitat for animals. We have also reforested 50 Ha in total at KAL in West Kalimantan.

Protection and Management

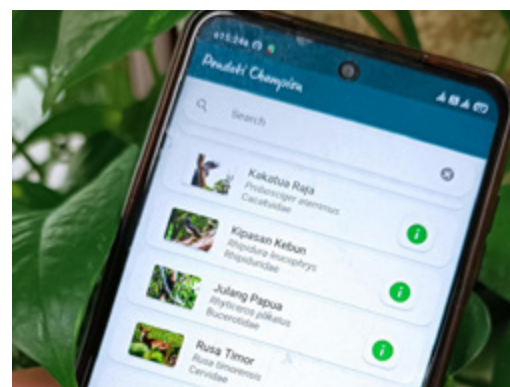
Protection and management of natural ecosystems within plantation areas is the cornerstone of our biodiversity strategy. These protected areas provide safe core habitats for wildlife, which then disperses through planted oil palm areas and corridors to move between protected areas. In this way, an ecological network is created at the landscape level that maximizes the viability of wildlife populations. Independently identified HCV/HCS sites and biodiversity inside our planted areas, other areas within our land title borders, and areas surrounding our land title boundaries that are within our control or influence will be fully protected and conserved in accordance with our Sustainability Policy. That includes commitments to stay out of conservation areas and primary forests with high biodiversity. Peat ecosystems, riparian zones, and hilly areas with

a slope grade of more than 40% are protected in our operations, and we are committed to their complete preservation.

We comply with the relevant rules and regulations relating to the protection and conservation of the environment and we have released a Conservation Policy, as well as relevant procedures concerning HCV and HCS and procedures for the conservation of protected flora and wildlife. We firmly prohibit harvesting, poaching, and hunting of protected flora and fauna, as well as all rare, threatened, and endangered species. Only hunting of unprotected and non-threatened species is permitted when sustainable use or sustainable hunting principles are used. This protocol must be rigorously followed by our suppliers.

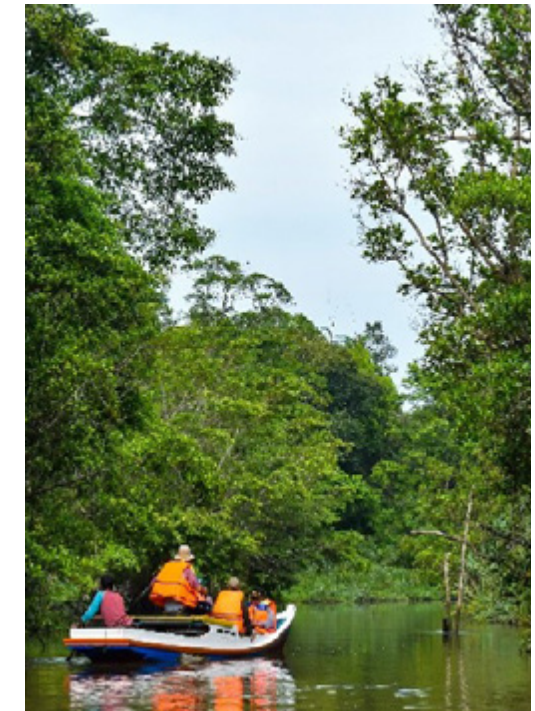
Estate Wide and Landscape Level Approaches

ANJ engages external stakeholders such as NGOs, local communities and local government to protect natural ecosystems outside its concession boundaries. Protecting these areas is important for the viability of RTE species populations, but also provides important ecosystem services such as water storage. In addition, ANJ works with other nearby companies and smallholder suppliers to improve landscape level management of wildlife and their habitats, especially looking at protecting corridors areas that connect HCV set asides.



of species – especially if microbial diversity in soils is included – and we cannot measure everything. Our biodiversity accounting system therefore uses indicator species for which we estimate abundance in different parts of our concessions, including plantations, protected forests and riparian areas, and also aquatic ecosystems. Our system assigns greater weight to species that are globally endangered and legally protected, although it also acknowledges the significance of common species in maintaining the functionality of the ecological systems within which we operate.

We are currently piloting the biodiversity monitoring system that uses PENDAKI data as input, and the next step will be to translate these species data into either monetary or non-monetary accounting values.



Biodiversity Accounting

Biodiversity accounting is a type of environmental accounting that measures and communicates the costs and benefits of a company's impact on the diversity and abundance of wildlife associated with our plantations. Biodiversity accounting can help improve decision-making, reduce environmental risks, and promote sustainability. Recognizing the value of natural capital, as exemplified by biodiversity, within ANJ's concession is an increasingly important part of our business strategy. The health of our business requires that the ecological systems we work in are resilient and strong, and rich

and stable biodiversity is a powerful indicator for that health. We depend, among others, on healthy soil to produce good yields and natural water storage capacity to buffer our planted areas from floods and have access to water during droughts.

The challenge in ecological accounting in general and biodiversity accounting more specifically is that values need to be measured in a way that provides the company with reliable, replicable, and consistent measures of biodiversity. "Biodiversity" in our estates consists of millions

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Biodiversity Strategy 2023

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