

ANTAM Raih 14 Penghargaan *Good Mining Practice* ANTAM Won 14 Good Mining Practice Awards

Pada tahun 2023, ANTAM kembali meraih penghargaan Prestasi Penerapan Kaidah Teknik Pertambangan Mineral dan Batubara yang Baik (*Good Mining Practice Award*) tahun 2023 yang diselenggarakan oleh Kementerian Energi dan Sumber Daya Mineral (ESDM) Republik Indonesia. Perusahaan meraih 14 penghargaan berupa 1 Trofi, 1 penghargaan peringkat Aditama, 2 penghargaan peringkat Utama, dan 10 penghargaan peringkat Pratama, atas komitmen dalam pelaksanaan praktik pertambangan yang baik melalui unit bisnis dan entitas anak usaha.

Apresiasi Pemerintah melalui *Good Mining Practice Award* ini merupakan salah satu wujud bagaimana ANTAM secara konsisten menerapkan tata kelola pertambangan dan bisnis yang sesuai dengan kaidah teknik pertambangan yang baik dan regulasi yang berlaku. ANTAM terus berkomitmen dalam menerapkan praktik operasi yang berkelanjutan, mengutamakan keselamatan, ramah lingkungan, serta mampu bersinergi dengan seluruh pemangku kepentingan agar dapat memberikan manfaat terbaik bagi Negara, pemegang saham, dan masyarakat.

In 2023, ANTAM once again won the 2023 Good Mining Practice Award organized by the Ministry of Energy and Mineral Resources (ESDM) of the Republic of Indonesia. In this award, ANTAM won 14 awards in the form of 1 Trophy, 1 Aditama Rank Award, 2 *Utama* Rank Awards and 10 *Pratama* Rank Awards for its commitment in implementing good mining practices through business units and subsidiaries.

The Government appreciation through the Good Mining Practice Award is a manifestation of how ANTAM consistently implements mining and business governance following the good mining. ANTAM remains committed to implementing sustainable operating practices, prioritizing safety, being environmentally friendly, and being able to synergize with all stakeholders to provide the best benefits to the government, shareholders, and society.

KEANEKARAGAMAN HAYATI DAN KONSERVASI

Komitmen dan Kebijakan Keaneekaragaman Hayati [GRI 3-3]

Menjaga kelestarian keaneekaragaman hayati di sekitar wilayah operasi merupakan komitmen dan tanggung jawab ANTAM guna meminimalkan dampak lingkungan atas kegiatan operasi yang dilakukan. Dua wilayah operasi ANTAM berada di dalam dan/atau berdekatan dengan kawasan status dilindungi yakni UBP Emas dan UBP Nikel Maluku Utara. Oleh karena itu, ANTAM secara berkelanjutan melakukan berbagai rencana dan upaya pengelolaan keaneekaragaman hayati terutama bagi habitat ekosistem dan flora-fauna yang berada di kedua wilayah tersebut. Khusus di wilayah UBP Nikel Maluku Utara, upaya pengelolaan dan konservasi dilakukan di darat dan laut. Meski demikian, rencana pengelolaan keaneekaragaman hayati juga dimiliki seluruh unit bisnis yang tercantum dalam dokumen lingkungan dan dijalankan secara konsisten.

ANTAM terus melanjutkan berbagai kegiatan *nursery* dan konservasi seperti fasilitas konservasi Jalak Putih, konservasi Burung Paruh Bengkok,

BIODIVERSITY AND CONSERVATION

Commitment and Policy on Biodiversity [GRI 3-3]

Preserving biodiversity around the operational area is ANTAM's commitment and responsibility to minimize the environmental impact of Our operations. Two of ANTAM's operational areas are within and/or adjacent to protected status areas, namely Gold Mining Business Unit and North Maluku Nickel Mining Business Unit. Therefore, ANTAM continuously carries out various plans and efforts to manage biodiversity, especially for ecosystem habitats and flora and fauna in these two areas. Specifically in the North Maluku Nickel Mining Business Unit area, management and conservation efforts are carried out on land and at sea. Nevertheless, biodiversity management plans are also owned by all business units listed in environmental documents and carried out consistently.

ANTAM continues various nursery and conservation activities such as the White Starling conservation facility, Parrot conservation, Deer breeding, Komodo

penangkaran rusa, program penetasan telur Komodo (*Haciko Eggs*), dan penanaman bakau. Pada tahun 2023, ANTAM juga berinisiatif melakukan budidaya tanaman endemik, arboretum hutan lindung, *vertical nursery* terumbu karang, hingga konservasi tanaman saninten dengan metode *ex-situ*. Selain itu, reklamasi dan revegetasi pada lahan bekas tambang juga terus dilakukan dan menjadi kewajiban yang harus dijalankan Perusahaan.

Lokasi Operasional yang Berdekatan dengan Kawasan Lindung dan Kawasan dengan Nilai Keanekaragaman Hayati Tinggi [OJK F.9][GRI 304-1]

Di UBP Emas, sebagian wilayah operasi Perusahaan berada di Area Penggunaan Lain (APL) dan hutan lindung yang berdekatan dengan Taman Nasional Gunung Halimun Salak (TNGHS). Dalam menjalankan aktivitas operasional, UBP Emas telah mendapatkan izin dari pemerintah, seperti Izin Pinjam Pakai Kawasan Hutan (IPPKH) dan izin dari pemerintah berdasarkan SK Menteri Kehutanan Republik Indonesia No. SK 413/Menhut-II/2013 tentang Izin Pinjam Pakai Kawasan Hutan (IPPKH), serta telah memiliki perpanjangan IPPKH yakni nomor SK 102/MENLHK/Setjen/PLA.0/3/2021 dan selanjutnya diperpanjang kembali dengan SK. 1123/Menlhk/Setjen/PLA.0/10/2022 untuk kegiatan operasi produksi emas dan mineral pengikutnya dengan pola pertambangan bawah tanah yang terletak di Kabupaten Bogor, Jawa Barat, seluas 22,38 hektar.

Sesuai SK.207/MENLHK/SETJEN/PLA.0/3/2019 tanggal 6 Maret 2019, UBP Nikel Maluku Utara beroperasi dengan luas IPPKH Pulau Pakal sebesar 456 ha dan Nomor SK.493/MENLKH/SETJEN/PLA.0/5/2022 tanggal 19 Mei 2022 Pulau Gee seluas 26,26 ha. Operasional di UBP Nikel Maluku Utara saat ini dilakukan dengan cara penambangan terbuka yang berdampak terhadap bentang alam. Untuk menangani dampaknya, ANTAM telah melakukan upaya dengan sistem rehabilitasi lahan yang progresif.

Dragon egg hatching program (*Haciko Eggs*), and mangrove planting. In 2023, ANTAM also took the initiative to cultivate endemic plants, protected forest arboretum, coral reef vertical nursery, and in addition, the reclamation and revegetation of post mining land will continue. This is an obligation that the Company is required to fulfill.

Operational Sites Adjacent to Protected Areas and Areas of High Biodiversity Value [OJK F.9][GRI 304-1]

In the Gold Mining Business Unit, some of the Company’s operating areas are located in Other Use Areas (APL) and protected forests adjacent to Gunung Halimun Salak National Park (TNGHS). In carrying out operational activities, the Gold Mining Business Unit has obtained permits from the government, such as the Borrow-to-Use Forest Area Permit (IPPKH) and permits from the government based on the Decree of the Minister of Forestry of the Republic of Indonesia No. SK 413/Menhut-II/2013 concerning Borrow-to-Use Forest Area Permit (IPPKH), and has had an extension of IPPKH, namely Decree number 102/MENLHK/ Setjen/PLA.0. /3/2021 and further extended with Decree No. 1123/Menlhk/ Setjen/PLA.0/10/2022 for gold and its associated minerals production operations with an underground mining pattern located in Bogor Regency, West Java, covering an area of 22.38 hectares.

According to Decree No. 207/MENLHK/SETJEN/PLA.0/3/2019 dated March 6, 2019, the North Maluku Nickel MBU operates with an IPPKH area of Pakal Island of 456 ha and Decree No. 493/MENLKH/SETJEN/PLA.0/5/2022 dated May 19, 2022, Gee Island of 26.26 ha. The North Maluku Nickel Mining Business Unit is currently operated by open pit mining, impacting the landscape. To deal with the impact, ANTAM has made efforts with a progressive land rehabilitation system.

**Dampak Signifikan dari Kegiatan, Produk, dan Jasa pada Keanekaragaman Hayati [GRI 304-2] [GRI 304-3]
Significant Impacts of Activities, Products, and Services on Biodiversity [GRI 304-2] [GRI 304-3]**

Unit Business Business Unit	Bentuk Dampak Form of Impact	Sumber Dampak Source of Impact	Program Pengelolaan Management Program
UBP Nikel Kolaka Kolaka Nickel Mining Business Unit	Terganggunya sistem System disruption	Kegiatan penambangan Mining activities	Reklamasi dan revegetasi. Reclamation and revegetation.
	Terganggunya ekosistem perairan Disruption of aquatic ecosystems	Aktivitas manusia Human activity	Transplantasi terumbu karang metode <i>Coral spider</i> . Reef transplantation with Coral Spider method.

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Unit Business Business Unit	Bentuk Dampak Form of Impact	Sumber Dampak Source of Impact	Program Pengelolaan Management Program
UBP Nikel Maluku Utara North Maluku Nickel Mining Business Unit	Perubahan bentang alam dan lapisan tanah. Landscape and subsoil changes.	Penambangan terbuka. Open pit mining.	Sistem rehabilitasi lahan yang progresif, mengembalikan keanekaragaman hayati di hutan lindung seperti semula dengan menanam kembali jenis tanaman lokal sesuai dengan Peraturan Menteri Lingkungan Hidup dan Kehutanan. UBP Nikel Maluku Utara juga menggunakan tanggul alami yang berfungsi sebagai penahan air limpasan sehingga tidak mencemari badan air dan merusak keanekaragaman hayati. A progressive land rehabilitation system, restoring biodiversity in protected forests to its original state by replanting local plant species by the Minister of Environment and Forestry Regulation. North Maluku Nickel Mining Business Unit also uses natural barriers that function as runoff water retention so as not to pollute water bodies and damage biodiversity.
UBP Emas Gold Mining Business Unit	Lahan Terbuka. Open Land.	Lahan terbuka akibat kegiatan PETI. Open land due to unlicensed miners (PETI) activities.	Rehabilitasi lahan. Land rehabilitation.
UBPP Logam Mulia Precious Metals Processing and Refinery Business Unit	Terancam punah. Endangered.	Turunnya kualitas semen banteng jawa. Decrease in the quality of Javanese bull cement.	Bekerja sama dengan Taman Safari Indonesia, koleksi semen Banteng Jawa menggunakan betina pemancing yang dikombinasikan dengan alat reproduksi betina buatan untuk menghasilkan kualitas dan volume semen yang bagus dan tidak ada kelainan. In collaboration with Taman Safari Indonesia, the Javanese Banteng semen collection uses breeding females combined with artificial female reproductive organs to produce good semen quality and volume with no abnormalities.
	Rentan terhadap kepunahan. Vulnerable to extinction.	Tempat tinggal dan perairan di sekelilingnya tercemar akibat sampah dan perikanan ilegal serta pariwisata yang tidak bertanggung jawab merupakan salah satu faktor utama selain perburuan dan perambahan oleh manusia. Their habitats and surrounding waters are polluted by garbage and illegal fishing as well as irresponsible tourism is one of the main factors in addition to hunting and encroachment by humans.	Bekerja sama dengan Taman Safari Indonesia, membangun Habitat Pre-Exhibit Untuk Pertumbuhan Pemeliharaan Anakan Komodo dalam Upaya Konservasi dengan Metode Eksitu yang disingkat dengan BIBIT KOMODO (Habitat Pre-Exhibit Komodo). In collaboration with Taman Safari Indonesia, building a Pre-Exhibit Habitat for the Growth of Komodo Pods in Conservation Efforts with Exitu Methods abbreviated as BIBIT KOMODO (Komodo Pre-Exhibit Habitat).
	Penurunan kualitas udara. Decrease in air quality.	Polusi dari sumber emisi tidak bergerak dan sumber emisi bergerak. Pollution from non-mobile and mobile emission sources.	1. Penanaman bakau dan tanaman penyerap karbon lainnya di lingkungan UBPP Logam Mulia; 2. Penghijauan kota bekerja sama dengan masyarakat dan pemerintah setempat. 1. Planting mangroves and other carbon-sequestering plants within the Precious Metals Processing and Refinery Business Unit; 2. Urban reforestation in collaboration with the community and local government.



Dampak Signifikan dari Kegiatan, Produk, dan Jasa pada Keanekaragaman Hayati [GRI 304-2] [GRI 304-3]
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Unit Business Business Unit	Bentuk Dampak Form of Impact	Sumber Dampak Source of Impact	Program Pengelolaan Management Program
	Terancam punah. Endangered.	<ol style="list-style-type: none"> 1. Minimnya area hijau dan penanaman yang dilakukan. 2. Tumbuhan langka memiliki karakteristik yang unik dan sulit beradaptasi dengan lingkungannya contohnya seperti butuh penyesuaian terhadap temperatur dan kelembaban. 	<p>Konservasi Tumbuhan Langka:</p> <ol style="list-style-type: none"> 1. Penanaman tanaman langka; 2. Edukasi tanaman langka; 3. Penyerahan bibit tanaman langka kepada masyarakat dan pemerintah kota. <p>Rare Plant Conservation:</p> <ol style="list-style-type: none"> 1. Planting rare plants; 2. Rare plant education; 3. Handover of rare plant seeds to the community and city government.
	Rentan terhadap kepunahan. Vulnerable to extinction.	<ol style="list-style-type: none"> 1. Semakin berkurangnya tanaman endemik DKI Jakarta. 2. Minimnya pengetahuan masyarakat terkait tanaman endemik DKI Jakarta. 	<p>Konservasi Tanaman endemik:</p> <ol style="list-style-type: none"> 1. Penanaman tanaman Endemik DKI Jakarta; 2. Edukasi tanaman endemik DKI Jakarta 3. Penyerahan bibit tanaman Endemik DKI Jakarta kepada masyarakat dan pemerintah kota. <p>Endemic Plant Conservation:</p> <ol style="list-style-type: none"> 1. Penanaman of endemic plants of DKI Jakarta; 2. Education of endemic plants of DKI Jakarta 3. Handover of DKI Jakarta Endemic plant seeds to the community and city government.
UBP Bauksit Kalimantan Barat West Kalimantan Bauxite Mining Business Unit	Perubahan bentang daratan. Landuse change.	Penambangan terbuka. Open pit mining.	Reklamasi Lahan Bekas Tambang Bersama Kelompok Mamalam. Reclaiming Ex-Mine Land together with Mamalam Group.
	Hilangnya kandungan unsur hara tanah. Loss of soil nutrients.	Penambangan terbuka. Open pit mining.	Teknologi Ameliorasi Presisi untuk Reklamasi Lahan Pasca Penambangan Bauksit Secara Berkelanjutan bekerja sama dengan Universitas Tanjungpura. Precision Amelioration Technology for Sustainable Post-Bauxite Mining Land Reclamation in collaboration with Tanjungpura University.
	Terganggunya keberadaan dan Keanekaragaman jenis dan populasi biota darat. Disruption of the existence and diversity of species and populations of terrestrial biota.	Kegiatan penambangan dan rehabilitasi lahan bekas tambang. Mining activities and rehabilitation of ex-mining land.	<ul style="list-style-type: none"> • Membuat papan pengumuman tentang larangan menebang pohon dan berburu biota darat yang dilindungi. • Membuat papan pengumuman tentang daerah-daerah yang menjadi lalulintas satwa liar. • Melakukan penyuluhan tentang jenis-jenis flora dan fauna dilindungi. • Menanam kembali area bekas tambang dengan tanaman pencegah erosi dan tanaman kehutanan/perkebunan. <ul style="list-style-type: none"> • Make signboard about prohibiting cutting down trees and hunting protected land biota. • Make signboard about areas for wildlife traffic. • Conduct counselling on the types of protected flora and fauna. • Replanting ex-mining areas with erosion prevention plants and forestry/plantation plants.

Dampak Signifikan dari Kegiatan, Produk, dan Jasa pada Keaneekaragaman Hayati [GRI 304-2] [GRI 304-3]
Significant Impacts of Activities, Products, and Services on Biodiversity [GRI 304-2] [GRI 304-3]

Unit Business Business Unit	Bentuk Dampak Form of Impact	Sumber Dampak Source of Impact	Program Pengelolaan Management Program
	Terganggunya Keberadaan dan Keaneekaragaman jenis dan populasi biota air. Disruption of the existence and diversity of aquatic biota species and populations.	Kegiatan penambangan, operasional instalasi pencucian bijih Bauxit dan rehabilitasi lahan bekas tambang. Mining activities, operation of the Bauxite ore washing plant, and rehabilitation of former mine land.	<ul style="list-style-type: none"> Pembuatan saluran air hujan darurat yang disalurkan ke saluran intermiten pada awal konstruksi. Membangun <i>sediment pond</i>, kolam pengendapan dan perangkap sedimen untuk memisahkan material padatan dari cairan serta mencegah bahan padatan tersebut keluar ke lingkungan sekitar. Penanaman jenis tumbuhan yang dapat menahan laju aliran permukaan serta yang dapat menimbulkan rasa nyaman dan udara segar. Construction of emergency stormwater drains that are channeled into intermittent drains at the start of construction. Constructing sediment ponds, settling ponds and sediment traps to separate solids from liquids and prevent solids from escaping into the surrounding environment. Planting plant species that can withstand surface flow rates and create a sense of comfort and fresh air.

Pada tahun 2023, ditemukan beberapa spesies IUCN baru di beberapa wilayah operasi ANTAM. Sebanyak 4 spesies kategori *Endangered* (EN), 2 spesies kategori *vulnerable*, 2 spesies kategori *Near Threatened* (NT), 22 spesies kategori *Least Concern* (LC), dan 1 spesies kategori *Not Evaluated* (NE). Detail daftar merah IUCN dan Spesies Daftar Konservasi Nasional dengan Habitat dalam Wilayah yang Terkena Efek Operasi Sampai 2023 dapat dilihat pada tabel berikut:

In 2023, there were several new IUCN species identified in ANTAM's operational areas. A total of 4 Endangered (EN) species, 2 vulnerable species, 2 Near Threatened (NT) species, 22 Least Concern (LC) species, and 1 Not Evaluated (NE) species. Details of the IUCN Red List and National Conservation List Species with Habitats within the Affected Area until 2023 can be seen in the following table:

Spesies Daftar Merah IUCN dan Spesies Daftar Konservasi Nasional dengan Habitat dalam Wilayah yang Terkena Efek Operasi [GRI 304-4]
IUCN Red List Species and National Conservation List Species with Habitat in Areas Affected by Operation [GRI 304-4]

Status of IUCN	Jumlah Spesies Number of Species
Extinct In The Wild (EW)	3
Critically Endangered (CR)	2
Endangered (EN)	8
Vulnerable (VU)	17
Near Threatened (NT)	8
Least Concern (LC)	136
Data Deficient (DD)	2
Not Evaluated (NE)	33

Catatan : Untuk data lengkap spesies yang ditemukan pada wilayah konservasi di masing-masing unit bisnis ANTAM dapat dilihat pada Lampiran 1
Notes: Complete data on Species found in conservation areas in each ANTAM business unit can be seen in Appendix 1.

Inisiatif dan Pencapaian ANTAM pada Aspek Keanekaragaman Hayati 2023 [GRI 304-3] ANTAM's Biodiversity Initiatives and Achievements 2023 [GRI 304-3]

Keanekaragaman Hayati Biodiversity

UBP Nikel Maluku Utara North Maluku Nickel Mining Business Unit

- Meningkatnya indeks kehati biota laut >1,5, kerja sama multipihak dalam upaya perlindungan kehati dan ditetapkannya kawasan Konservasi Biota Laut.
- Meningkatnya indeks kehati biota laut >2, kerja sama multipihak dalam upaya perlindungan kehati dan ditetapkannya kawasan Konservasi Terrestrial.
- Peningkatan luasan tutupan hijau di area reklamasi, penurunan tingkat erosi di area pengembangan sabuk hijau pada pesisir IUP, serta pelibatan berbagai masyarakat sekitar operasional dalam melaksanakan kegiatan pengolahan lahan pascatambang melalui program Reklamasi Berkelanjutan.
- Increased biodiversity index of marine biota >1.5, multi-stakeholder cooperation in biodiversity protection efforts, and the establishment of Marine Biota Conservation areas.
- Increased biodiversity index of marine biota >2, multi-stakeholder cooperation in biodiversity protection efforts, and establishment of Terrestrial Conservation areas.
- Increased green cover area in reclamation areas, decreased erosion rates in green belt development areas on the IUP coast, and involvement of various communities around operations in carrying out post-mining land treatment activities through the Sustainable Reclamation program.

UBP Nikel Kolaka Kolaka Nickel Mining Business Unit

- Peningkatan indeks kehati biota laut >2, terciptanya objek wisata di wilayah Hakatutubu dan peningkatan kepedulian masyarakat terhadap lingkungan dengan program rehabilitasi Karamba (Transplantasi Terumbu Karang).
- Meningkatkan serapan karbon di area operasi *stockyard* dengan program Pomalaa Green Belt melalui penataan lahan dan pelibatan masyarakat.
- Penyediaan area konservatif di Pomalaa dan tercapainya peningkatan jumlah spesies tanaman langka dan endemik sebesar 5% setiap tahunnya melalui program RAHA ELAPO (Rumah Flora Endemik, Langka dan Produktif).
- Increasing the biodiversity index of marine biota >2, creating tourism objects in the Hakatutubu area, and increasing community awareness of the environment with the Karamba rehabilitation program (Coral Reef Transplantation).
- Increasing carbon sequestration in the stockyard operation area with the Pomalaa Green Belt program through landscaping and community involvement.
- Provision of conservative areas in Pomalaa and achieving an increase in the number of rare and endemic plant species by 5% annually through the RAHA ELAPO program (Endemic, Rare, and Productive Flora House).

UBP Emas Gold Mining Business Unit

- Restorasi Pemulihan Ekosistem Taman Nasional Gunung Halimun Salak Pada Kawasan Hutan Lindung.
- Restorasi [Pengkayaan] Longsoran Lereng Cepu di Area Taman Nasional Gunung Halimun Salak.
- Konservasi Keanekaragaman Hayati secara *In Situ* melalui *In Breeding & Re-introduction* burung jalak putih dengan status Endangered Critical-Red List IUCN.
- Konservasi Tanaman Asli Taman Nasional Gunung Halimun Salak melalui program Pembangunan dan Pengembangan Pusat Konservasi Keanekaragaman Hayati Taman Nasional Gunung Halimun Salak (TNGHS) - Pembangunan Fasilitas Pusat Pendidikan & Penelitian Pohon dan Tanaman Asli (P4TA) dengan jumlah total 349.056 batang.
- Konservasi Genetik Tanaman Palahlar Endangered Plant pada area Taman Nasional Gunung Halimun Salak (TNGHS).
- Ecosystem Restoration of Mount Halimun Salak National Park in Protected Forest Area.
- Restoration [Enrichment] of Cepu Slope Avalanche in the Mount Halimun Salak National Park Area.
- In Situ Biodiversity Conservation through In Breeding & Re-introduction of white starlings with Endangered Critical-Red List status IUCN.
- Conservation of Native Plants of the Mount Halimun Salak National Park through the Construction and Development of the Center for Biodiversity Conservation of the Mount Halimun Salak National Park (TNGHS) - Construction of Education & Research Center Facilities for Trees and Native Plants (P4TA) with a total of 349,056 trunks.
- Genetic Conservation of Endangered Plant Palahlar in the area of the Mount Halimun Salak National Park (TNGHS).

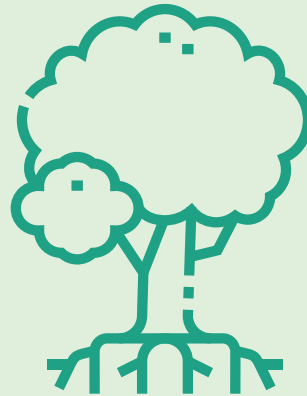


UBP Bauksit Kalimantan Barat West Kalimantan Bauxite Mining Business Unit

- Peningkatan indeks kehati flora dan fauna >3, peningkatan kualitas tanah pascatambang dengan program konservasi Ekosistem Hutan Heterogen melalui pengadaan tankos, penanaman dan pemeliharaan tanaman *Legume Cover Crop* (LCC), endemik dan budidaya, pengadaan pot organik dari *red mud* untuk kebutuhan reklamasi.
- Peningkatan indeks kehati flora dan fauna >3, membudidayakan tanaman endemik dan produktif sebanyak 1.500 bibit/tahun, serta peningkatan jumlah jenis dan individu tanaman endemik dan produktif dengan program bertajuk Taman Rotasi Ulin Kehati.
- Peningkatan indeks kehati flora dan fauna >3, budidaya tanaman jambu kristal, konservasi tanaman anggrek, penyediaan habitat satwa dilindungi, peningkatan koleksi ikan hias dan endemik di Aquarium Danau Laet.
- Peningkatan indeks kehati flora >3, budidaya tengkawang dan tanaman produktif lainnya, budidaya madu hitam dan produksi sebanyak 5-10 liter/2-3 bulan melalui program Arboretum Hutan Lindung Nek Bindang.
- Increased biodiversity index of flora and fauna >3, improved post-mining soil quality with the Heterogeneous Forest Ecosystem conservation program through the procurement of tankos, planting, and maintenance of Legume Cover Crop (LCC), endemic, and cultivated plants, procurement of organic pots from red mud for reclamation needs.
- Increasing biodiversity index of flora and fauna >3, cultivating endemic and productive plants as many as 1,500 seedlings/year, as well as increasing the number of species and individuals of endemic and productive plants with a program entitled Ulin Kehati Rotation Park.
- Increasing biodiversity index of flora and fauna >3, cultivating crystal guava plants, conserving orchid plants, providing habitat for protected animals, increasing the collection of ornamental and endemic fish in the Lake Laet Aquarium.
- Increased biodiversity index of flora >3, cultivation of tengkawang and other productive plants, cultivation of black honey, and production of 5-10 liters/2-3 months through the Nek Bindang Protected Forest Arboretum program.

UBPP Logam Mulia Precious Metal Processing and Refinery Business Unit

- Pemanfaatan pohon bakau sebanyak 111 pohon sebagai upaya konservasi ekosistem wilayah perairan.
- Penanaman dan perawatan pohon Saninten sebanyak 10 pohon/tahun di area internal.
- Pelestarian tanaman endemik sebanyak 100 pohon/tahun.
- Penanaman 1.000 pohon/tahun untuk mencapai Net Zero Emission 2060.
- Utilization of 111 mangrove trees as an effort to conserve the ecosystem of the water area.
- Saninten tree planting and maintenance of 10 trees/year in internal areas.
- Endemic plant preservation of 100 trees/year.
- Planting 1,000 trees/year to achieve Net Zero Emission in 2060.



Fauna

UBP Nikel Maluku Utara North Maluku Nickel Mining Business Unit

- Meningkatnya jumlah dan jenis burung paruh bengkok, penurunan angka perburuan burung buruh bengkok,
- Meningkatnya jumlah sarang Maleo di Kawasan Pulau Pakal dan Gee, serta meningkatnya jumlah Maleo dan menurunnya angka kematian Maleo di area tambang melalui pengadaan konservasi Burung Gosong Maluku/ Burung Maleo.
- Meningkatnya jumlah dan jenis burung migran di Kabupaten Halmahera Timur melalui kegiatan inventarisasi dan publikasi inventarisasi burung migran.
- Increased number and species of parrots, decreased hunting rate of parrots,
- Increased the number of Maleo nests in Pakal and Gee Island areas, as well as increasing the number of Maleo and decreasing the number of Maleo deaths in the mining area through the procurement of Maluku Gosong Bird/Maleo Bird conservation.
- Increased the number and species of migratory birds in East Halmahera Regency through inventory activities and publication of migratory bird inventory.

UBP Emas Gold Mining Business Unit

Konservasi Satwa Asli- Pelepasliaran dan pemantauan Elang Ular Bido, Owa Jawa, dan Elang Jawa.

Native Animal Conservation - Release and monitoring of Bido's Snake Eagle, Javan Gibbon, and Javan Eagle.

UBP Bauksit Kalimantan Barat West Kalimantan Bauxite Mining Business Unit

Pelestarian tiga spesies/tahun satwa endemik dan dilindungi melalui program Konsatli (Konservasi Satwa Liar) melalui kerja sama dengan BKSDA Kalimantan Barat dan perguruan tinggi untuk penyelamatan dan pelepasliaran satwa.

Preservation of three species/year of endemic and protected animals through the Konsatli (Wildlife Conservation) program in collaboration with West Kalimantan BKSDA and universities for animal rescue and release.

UBPP Logam Mulia Precious Metal Processing and Refinery Business Unit

Pelaksanaan program ANIMAL CARE, perbaikan kualitas semen (sperma) satwa langka Banteng Jawa sebanyak satu ekor/tahun.

Implementation of the ANIMAL CARE program, improving the quality of semen (sperm) of endangered Javanese Bulls by one animal per year.



Konservasi Biota Laut Pulau Pakal dan Pulau Gee Pakal Island and Gee Island Marine Biota Conservation

UBP Nikel Maluku Utara berupaya melestarikan habitat dan ekosistem biota laut yang berada di sekitar operasional dengan berkomitmen menjadikan area Pulau Pakal dan Pulau Gee sebagai kawasan konservasi. Pelestarian tersebut dilakukan dalam bentuk kebun bibit atau plasma nutfah lamun dan terumbu karang, sekaligus mengembalikan fungsi ekologis biota laut di area kedua pulau tersebut. Pemantauan biota laut dilakukan secara rutin, mulai dari proses pengamatan, pencatatan, pengukuran, dan pendokumentasian secara verbal dan visual menurut standar prosedur tertentu terhadap komponen biologi.

Dalam implementasinya, UBP Nikel Maluku Utara melakukan kegiatan restorasi terumbu karang dan lamun, membuat papan penunjuk di titik-titik krusial biota laut, dan melakukan monitoring evaluasi keanekaragaman hayati secara berkala. Kegiatan itu dilakukan dengan menjalin kemitraan lokal bersama kelompok penyelam kecamatan dan ahli kelautan dari Universitas Hasanuddin.

Pada periode Desember 2023, berdasarkan Laporan Hasil Pemantauan Biota Laut, menunjukkan adanya peningkatan nilai tutupan lamun dan karang hidup di Pulau Gee dan Pulau Pakal. Persentase tutupan lamun berkisar antara 28,2-46,0% di Pulau Gee dan 26,8-31,4% di Pulau Pakal dengan rata-rata peningkatan tutupan lamun adalah 13,6% di Pulau Gee dan 27,1% di Pulau Pakal. Keanekaragaman lamun yang tinggi dengan 9 jenis lamun mewakili 70% dari total jenis lamun di Indonesia, menandakan pemulihan alami yang progresif.

Selain itu, terjadi peningkatan jumlah ikan dengan kelimpahan ikan di Pulau Gee rata-rata 1.773 ekor/ha (kisaran 1.600-2.000 ekor/ha) dan di Pulau Pakal rata-rata 1.200 ekor/ha (kisaran 1.040-1.320 ekor/ha). Keanekaragaman ikan yang berasosiasi dengan padang lamun tercatat sebanyak 44 jenis dari 15 famili dan 28 genera.

Penutupan makroalga di Pulau Pakal konsisten dengan data sebelumnya, namun terjadi peningkatan pada Stasiun 2 dan Stasiun 4 hingga menjadi data tertinggi sejak pemantauan Mei 2022. Sedangkan ekosistem terumbu karang memperlihatkan kondisi yang relatif stabil dengan nilai tutupan karang hidup yang berkisar 23-28% di Pulau Gee dan 24,6-26,6% di Pulau Pakal.

The North Maluku Nickel Mining Business Unit seeks to preserve the habitat and ecosystem of marine life around its operations by committing to make the Pakal Island and Gee Island areas a conservation area. The conservation is carried out in the form of seagrass and coral reef nurseries or germplasm while restoring the ecological function of marine biota in the area of the two islands. Marine biota monitoring is carried out routinely, starting from the process of observing, recording, measuring, and documenting verbally and visually according to certain standard procedures for biological components.

In its implementation, the North Maluku Nickel Mining Business Unit conducts coral reef and seagrass restoration activities, makes signboards at crucial points of marine biota, and conducts regular biodiversity evaluation monitoring. The activities were carried out by establishing local partnerships with sub-district diving groups and marine experts from Hasanuddin University.

In the period of December 2023, based on the Marine Biota Monitoring Report, seagrass and live coral cover values increased on Gee Island and Pakal Island. The percentage of seagrass cover ranged from 28.2-46.0% on Gee Island and 26.8-31.4% on Pakal Island with an average increase in seagrass cover of 13.6% on Gee Island and 27.1% on Pakal Island. Seagrass diversity was high with nine seagrass species representing 70% of the total seagrass species in Indonesia, indicating progressive natural recovery.

There was an increase in the number of fish with fish abundance on Gee Island averaging 1,773 fish/ha (range 1,600-2,000 fish/ha) and on Pakal Island averaging 1,200 fish/ha (range 1,040-1,320 fish/ha). The diversity of fish associated with seagrass beds was recorded at 44 species from 15 families and 28 genera.

Macroalgae cover on Pakal Island was consistent with previous data. However, there was an increase at Station 2 and Station 4 to the highest data since monitoring in May 2022. Meanwhile, the coral reef ecosystem showed a relatively stable condition with live coral cover values ranging from 23-28% on Gee Island and 24.6-26.6% on Pakal Island.

Transplantasi Terumbu Karang di Teluk Lasolo Coral Reef Transplantation in Lasolo Bay

ANTAM melalui UBP Nikel Konawe Utara bekerja sama dengan Balai Konservasi Sumber Daya Alam (BKSDA) Provinsi Sulawesi Tenggara melaksanakan kegiatan program transplantasi terumbu karang di Taman Wisata Alam (TWA) Teluk Lasolo. TWA Teluk Lasolo merupakan kawasan konservasi yang memiliki peran penting dalam siklus karbon yang mampu mengendalikan pemanasan global. Program transplantasi terumbu karang dilakukan di Desa Labengki pada blok pemanfaatan TWA dengan menggunakan metode Spider Mars sebanyak 75 unit rangka Spider Mars.

ANTAM, through the North Konawe Nickel Mining Business Unit, in collaboration with the Natural Resources Conservation Agency (BKSDA) of Southeast Sulawesi Province carried out coral reef transplantation program activities at the Lasolo Bay Nature Tourism Park (TWA). The Lasolo Bay TWA is a conservation area that has an important role in the carbon cycle that can control global warming. The coral reef transplantation program was carried out in Labengki Village in the TWA utilization block using the Spider Mars method with 75 units of Spider Mars frames.

ANTAM Lepasliarkan Puluhan Satwa Liar ke Habitat Alami ANTAM Released Dozens of Wildlife to Natural Habitat

Dalam rangka memperingati Hari Konservasi Alam Nasional, ANTAM melalui UBP Bauksit Kalimantan Barat berkolaborasi dengan Balai Konservasi Sumber Daya Alam (BKSDA) Kalimantan Barat, Fakultas Kehutanan Universitas Tanjungpura, dan Yayasan Planet Indonesia, melakukan pelepasliaran puluhan satwa liar ke habitat alaminya di hutan pendidikan dan pelatihan (Diklat) Kawasan Hutan Dengan Tujuan Khusus (KHDTK) Universitas Tanjungpura, Kabupaten Kubu Raya. Satwa-satwa tersebut berasal dari hasil penyelamatan satwa liar yang dilakukan oleh BKSDA Kalimantan Barat dan sudah danau laetirehabilitasi di Wak Gatak Conservation Center.

Di antara satwa-satwa yang dilepasliarkan merupakan satwa yang dilindungi dan masuk dalam daftar IUCN Red List dengan beberapa kategori, seperti seekor Kucing Kuwuk *Prionailurus bengalensis* (Risiko Rendah /Least Concern), seekor Musang Pandan *Paradoxurus hermaphroditus* (Risiko Rendah /Least Concern), seekor Kukang *Nycticebus menagensis* (Rentan /Vulnerable) dan 30 ekor burung Serindit Melayu *Loriculus galgulus* (Risiko Rendah /Least Concern). Sementara itu dari jenis satwa yang tidak dilindungi terdapat burung Madu Bakau *Leptocoma calcostetha* (Risiko Rendah /Least Concern) sebanyak 20 ekor.

In commemoration of National Nature Conservation Day, ANTAM, through the West Kalimantan Bauxite Mining Business Unit, in collaboration with the West Kalimantan Natural Resources Conservation Agency (BKSDA), the Faculty of Forestry of Tanjungpura University, and the Planet Indonesia Foundation, released dozens of wild animals into their natural habitat in the education and training forest (Diklat) of the Tanjungpura University Special Purpose Forest Area (KHDTK), Kubu Raya Regency. The animals came from wildlife rescues conducted by the West Kalimantan BKSDA and have been rehabilitated at the Wak Gatak Conservation Center.

Among the released animals are protected animals listed in the IUCN Red List with several categories, such as a Kuwuk Cat *Prionailurus bengalensis* (Low Risk/Least Concern), a Pandanus Weasel *Paradoxurus hermaphroditus* (Low Risk/Least Concern), a Kukang *Nycticebus menagensis* (Vulnerable) and 30 Malay Serindit birds *Loriculus galgulus* (Low Risk/Least Concern). Meanwhile, from the non-protected species, there were 20 Madu Bakau birds *Leptocoma calcostetha* (Low Risk/Least Concern).

Pemantauan Elang Ular Bido Bido Snake Eagle Monitoring

Sebagai upaya dalam menjaga kelestarian fauna, UBP Emas telah melakukan pelepasliaran dan pemantauan 12 elang ular bido. Setelah dilakukan pelepasliaran, UBP Emas juga memantau satwa tersebut bekerja sama dengan Balai Taman Nasional Gunung Halimun Salak yang menjadi tujuan pelepasliaran satwa. Pemantauan dilakukan guna memastikan populasi satwa asli yang ada di alam maupun hasil pelepasliaran masih tetap terjaga. Harapannya, populasi elang ular bido dapat semakin meningkat tiap tahunnya.

As an effort to preserve fauna, the Gold Mining Business Unit has released and monitored 12 bido snake eagles. After the release, the Gold Mining Business Unit also monitors the animals in collaboration with the Mount Halimun Salak National Park which is the destination of the release of the animals. Monitoring is carried out to ensure that the population of native animals in nature and the results of the release are still maintained. We hope that the population of bido snake-eagles can increase every year.

RENCANA DAN REALISASI REKLAMASI

Reklamasi dan rehabilitasi lahan bekas tambang menjadi salah satu fokus utama ANTAM. Hal ini sejalan dengan komitmen Perusahaan untuk melakukan reklamasi lahan bekas tambang dengan baik dan sesuai dengan ketentuan serta peraturan yang berlaku. ANTAM juga berupaya agar lahan bekas tambang tersebut dapat memberikan nilai tambah dan bermanfaat untuk masyarakat.

Komitmen ANTAM ini sejalan dengan Tujuan Nomor 14 SDGs tentang Ekosistem Perairan (*Life Below Water*) dan Tujuan Nomor 15 SDGs tentang Ekosistem Daratan (*Life on Land*) tentang mengelola hutan atau lahan secara berkelanjutan, merehabilitasi kerusakan lahan, hingga mencegah kepunahan keanekaragaman hayati yang berada di darat maupun perairan.

ANTAM memiliki strategi perencanaan dan pelaksanaan reklamasi yang berpedoman pada perencanaan tahunan dan lima tahunan. Upaya ANTAM dalam perencanaan reklamasi dan rehabilitasi mengacu pada UU Nomor 3 Tahun 2020 tentang Perubahan Atas UU Nomor 4 tahun 2009 tentang Pertambangan Mineral dan Batubara, di mana pemegang izin konsesi tambang wajib melaksanakan reklamasi dan pascatambang dengan tingkat keberhasilan 100 persen, serta pemberian sanksi bagi pemegang izin yang tidak melaksanakan reklamasi dan pascatambang.

RECLAMATION PLAN AND REALIZATION

Reclamation and rehabilitation of ex-mining land is one of ANTAM's main focuses. It is in line with the Company's commitment to reclaim ex-mining land properly and in accordance with applicable regulations. ANTAM also strives to make the ex-mining land can provide added value and benefit the community.

ANTAM's commitment is in line with Goal Number 14 of the SDGs on Life Below Water and Goal Number 15 of the SDGs on Life and Land on managing forests or land sustainably, rehabilitating land damage, and preventing the extinction of biodiversity on land and water.

ANTAM has a reclamation planning and implementation strategy that is guided by annual and five-year plans. ANTAM's efforts in reclamation and rehabilitation planning refer to Law Number 3 of 2020 concerning Amendments to Law Number 4 of 2009 concerning Mineral and Coal Mining, in which mining concession license holders are required to carry out reclamation and post-mining with a 100 percent success rate, as well as sanctions for license holders who do not carry out reclamation and post-mining.