

GREEN CARBON INITIATIVE, CARA PERTAMINA DUKUNG PERCEPATAN PEMULIHAN LINGKUNGAN

GREEN CARBON INITIATIVE, PERTAMINA'S SUPPORT FOR ENVIRONMENT REHABILITATION ACCELERATION

Pada 2065, diprediksi hampir dua pertiga lapisan ozon bumi lenyap yang berdampak pada peningkatan radiasi ultraviolet (UV) sehingga mengakibatkan kanker kulit, mutasi DNA dan kulit terbakar hanya dalam lima menit. Inilah gambaran suram masa depan yang diprediksi ilmuwan NASA, Universitas John Hopkins dan Netherlands Environmental Assessment Agency apabila lapisan ozon terus menipis dan rusak.

Karena itu, Pemerintah mendorong percepatan pemulihan lingkungan, di antaranya melalui upaya rehabilitasi dan konservasi mangrove serta reforestasi hutan di Indonesia. Pertamina sebagai BUMN pun ikut mendukung komitmen tersebut. Sejak 2022, Pertamina melalui Pertamina Foundation menggandeng berbagai pihak menggulirkan program *green carbon initiative* sebagai *project nature based solution* untuk menurunkan laju degradasi-deforestasi dan emisi gas rumah kaca.

Ada beberapa proyek rehabilitasi dan konservasi mangrove serta reforestasi yang digulirkan Pertamina Foundation, yaitu Blora Project, Mahakam Project, Bontang Project, Lembata Project, dan Cenderawasih Kwatisore Project.

"*Blue Carbon Initiative* menjadi milestone bagi perusahaan untuk mewujudkan Pertamina Lestari lewat integrasi Hutan Pertamina, Desa Energi Berdikari, konservasi keanekaragaman hayati, pemberdayaan masyarakat, dan

In 2065, it was predicted that two out of third ozone layer would disappear and result in the raise of ultraviolet (UV) radiation that cause skin cancer, DNA mutation, and skin burn in only 5 minutes of exposures. Such description was reported by scientists from NASA, John Hopkins University, and Netherlands Environmental Assessment Agency for the impact of thinning and destruction of ozone layer.

Therefore, the government called for acceleration for the environment rehabilitation, including the rehabilitation and conservation of mangrove and reforestation in Indonesia. As the leading state-owned firm, Pertamina supports the commitment. Since 2022, Pertamina Foundation had collaborated with related stakeholders to carry out the green carbon initiative program as nature based solution project on slowing down the degradation-deforestation rate and green house gas emission.

Several projects of mangrove rehabilitation and conservation from Pertamina Foundation are Blora Project, Mahakam Project, Bontang Project, Lembata Project, and Cendrawasih Kwatisore Project.

"Blue Carbon Initiative became the milestone



penerapan teknologi energi baru dan terbarukan. Ini adalah wujud komitmen Pertamina melalui Pertamina Foundation untuk berkarya, berbagi, dan bergerak untuk kesejahteraan masyarakat, serta umur bumi lebih panjang," kata Ketua Pembina Pertamina Foundation Mulyono.

Untuk Blora Project, Pertamina Foundation menggandeng Universitas Gadjah Mada (UGM) untuk melakukan reforestasi Hutan Pertamina-UGM di Kampus Lapangan Getas, Blora, Jawa Tengah, yang diresmikan pada Minggu (18/9/2022). Reforestasi Hutan Pertamina UGM dapat mengurangi CO₂ yang merusak ozon dan berpotensi memangkas emisi gas rumah kaca setara lebih dari 170 ribu ton CO₂ selama 10 tahun.

Selain penyerapan karbon, skema agroforestri Hutan Pertamina-UGM juga mendukung Desa Energi Berdikari Pertamina melalui pemenuhan kebutuhan *biofuel green refinery* di Cilacap. Limbah dari tanaman pun dapat dimanfaatkan menjadi pakan ternak dan pupuk kompos. Program ini memberdayakan 8.000 pesanggem (penggarap lahan) dari berbagai desa di area KHDTK Ngandong-Getas.

Pada Mahakam Project, Pertamina Foundation bersinergi dengan PT Pertamina Hulu Mahakam (PHM) dan Fakultas Kehutanan Universitas

for the company to realize Pertamina Lestari with integration of Pertamina Forest, Energy Resilient Village, biodiversity conservation, community development, and application of the renewable energy. This has been the commitment from Pertamina through Pertamina Foundation to dedicate, share, and take action for the community prosperity and longer life of the earth," said the Chairman of Pertamina Foundation Mulyono.

For Blora Project, Pertamina collaborated with Gadjah Mada University (UGM) for reforestation of Pertamina Forest-UGM at Lapangan Getas Campus, Blora, Central Java, inaugurated in Sunday, 18 September 2022. Reforestation to Pertamina Forest-UGM will reduce the destructive CO₂ to the ozone layer and will potentially cut the emission of the green house gas by around 170,000 ton of CO₂ for 10 years.

In addition of the carbon absorption, the scheme of agroforestry for Pertamina Forest-UGM will also support Pertamina's Energy Resilient Village for the need of biofuel green refinery in Cilacap. The waste from the plants will be utilized for livestock feed and compost. The program will involve 8,000 land farmer or locally known as pesanggem from various village of KHDTK Ngandong-Getas.

In Mahakam Project, Pertamina Foundation

Mulawarman melalui Hutan Pertamina Mahakam di areal Persetujuan Penggunaan Kawasan Hutan (PPKH) pada Kawasan Hutan Produksi Tetap di Delta Mahakam, Kabupaten Kutai Kartanegara, Kalimantan Timur.

Pertamina Foundation juga menandatangani MoU dengan Badan Restorasi Gambut dan Mangrove tentang Dukungan Pelaksanaan Percepatan Rehabilitasi Mangrove. MoU tersebut menekankan pada empat poin, yaitu pelaksanaan percepatan rehabilitasi mangrove, pemberdayaan masyarakat sekitar lokasi kegiatan rehabilitasi mangrove, penguatan kelembagaan masyarakat, dan peningkatan kapasitas SDM.

Rehabilitasi mangrove dalam kawasan Hutan Pertamina Mahakam ini dilakukan secara bertahap seluas 2.303,46 Ha dengan estimasi pengurangan emisi gas rumah kaca sebesar 120 ribu ton CO₂ selama satu tahun.

Untuk Bontang Project, Pertamina Foundation berkolaborasi dengan Badak LNG meresmikan Hutan Pertamina Badak LNG. Pada lahan seluas 40 hektar di lingkungan operasi Badak LNG di kota Bontang, akan ditanam 400.000 bibit mangrove. Hutan Pertamina Badak LNG ini sejalan dengan komitmen PT Badak LNG yang mereduksi emisi karbon sebanyak 42.021 Ton CO₂e pada 2022.

Masih ada dua *project* lagi yang digarap Pertamina

collaborated with PT Pertamina Hulu Mahakam (PHM) and Forestry Faculty of Mulawarman University for managing Pertamina Mahakam Forest at Temporary Rent-and-Use of Forest Area (PPKH) at Production Forest Area in Mahakam Delta, Kutai Kartanegara Regency, East Kalimantan.

Pertamina Foundation also signed the MoU with Peatland and Mangrove Restoration Agency regarding the Support and Acceleration for the Mangrove Rehabilitation. The MoU emphasized on 4 points; acceleration for the mangrove rehabilitation, community development at the area nearby the mangrove rehabilitation, strengthening the community institution, and human capital capacity building.

Mangrove rehabilitation at Pertamina Mahakam Forest area had been gradually conducted for 2,303.46 hectares of land with estimation of emission reduction of 120,000 ton of CO₂ for a year.

For Bontang Project, Pertamina Foundation collaborated with Badak LNG for inaugurating Pertamina Badak LNG Forest. On the land of 40 hectares at Badak LNG operational area in

PROGRAM LINGKUNGAN

Hutan Pertamina

102,61 Total luas lahan Mangrove
Hektar

1.907 Social Return of Investment – per Des 2022

1.043.147 Realisasi Penanaman Mangrove
Pohon

BLUE CARBON INTERNATIONAL SYMPOSIUM 2022 BY

UNIVERSITAS PERTAMINA

REGISTRASI **SRN - KLHK**

PUBLISHED JOURNAL “THE ROLE OF BLUE CARBON IN REDD+ AND NDC” BY

UNIVERSITAS PERTAMINA

JENIS TANAMAN

- RHIZOPHORA SP (BAKAU)
- BRUGUIERA SP (TANCANG)
- EXCOECARIA SP (BUTA - BUTA)
- SONNERATIA SP (PEREPAT)
- AVICENNIA SP (MANGROVE API-API)
- CERIOPS SP (TENGAR)

- MORINDA CRITRIFOLIA (PACE)
- HERITIERA LITTORALIS (DUNGUN KECIL)
- XYLOCARPUS GRANATUM (NYIREH)
- SONNERATIA OVATA (PEDADA)
- CERIOPS TAGAL (SOGA TINGI)

Foundation untuk menyukseskan program *Blue Carbon Initiative*, yaitu *Lembata Project* dan *Cenderawasih Kwatisore Project*.

Yang pasti, per Desember 2022, program restorasi dan konservasi mangrove telah melakukan penanaman 1.043.147 pohon di lahan seluas 102,61 hektare. Program ini berhasil melakukan *social return of investment* (SROI) 1,907. Artinya, setiap Rp1 biaya program menghasilkan perubahan positif senilai Rp1,907 atau lebih dari satu setengah kali lipat anggaran yang telah diinvestasikan pada program hanya dalam beberapa bulan.

Sedangkan untuk program reforestasi, per Desember 2022, Pertamina telah melakukan penanaman 401.043 pohon di lahan hutan terestrial seluas 400,61 hektare dengan SROI mencapai 1,607.

Pencapaian ini menjadi bukti keseriusan Pertamina dan menjadi prioritas perusahaan dalam rangka pencapaian Sustainable Development Goals yang mengedepankan aspek *Environmental, Social, dan Governance* (ESG), serta *Blue Carbon Initiative* yang menjadi bagian dari 16 Inisiatif ESG Prioritas Pertamina. ■

Bontang city, 400,000 seedlings of mangrove will be planted. Pertamina Badak LNG Forest has been part of PT Badak LNG commitment to reduce the carbon emission of 42,021 ton CO2e in 2022.

The remaining 2 projects from Pertamina Foundation as part of Blue Carbon Initiative are Lembata Project and Cendrawasih Kwatisore Project.

For certain, as of December 2022, mangrove restoration and conservation projects had planted 1,043,147 trees at 102,61 hectares of land. The program has resulted in social return of investment (SROI) of 1.907 which means every Rp 1 cost of the program has resulted in Rp 1,907 or more than one and half value of the allocated investment on the program within only few months.

As for reforestation program, as of December 2022, Pertamina has replanted 401,043 trees at terrestrial forest of 400.61 hectares with 1.607 value of SROI.

The achievements have been the commitment of Pertamina to prioritize the Sustainable Development Goals (SDGs) with environment, social, and governance (ESG) aspects, as well as the Blue Carbon Initiative which is part of 16 initiatives on Pertamina's ESG Priority. ■

400,61 Total luas lahan Hutan Terestrial
Hektar

1.607 Social Return of Investment - per Des 2022

461.043 Realisasi Penanaman Pohon
Pohon

JENIS TANAMAN

- KAYU PUTIH;
- NYAMPLUNG;
- KEPUH;
- JAMBU METE;
- JATI;
- NANGKA.

