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MARET-MARCH 2021

BERGERAK BERSAMA DEMI KELAS DUNIA

**WORKING TOGETHER
FOR A WORLD-CLASS COMPANY**



DWIBAHASA
BILINGUAL



PUSAT LAYANAN PRODUK PERTAMINA

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PERTAMINA
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#Call135



INFO KETERSEDIAAN BBM
FUEL AVAILABILITY INFO



INFO KETERSEDIAAN LPG
LPG AVAILABILITY INFO



UNTUK TOILET SPBU LEBIH NYAMAN
FOR MORE COMFORTABLE TOILETS AT THE GAS STATION



UNTUK LAYANAN LEBIH BAIK
FOR BETTER SERVICES



INFO KETERSEDIAAN PELUMAS
INFO ON LUBRICANT AVAILABILITY

PENGEMBANGAN BISNIS KILANG DAN PETROKIMIA

Setelah diamanahkan menjadi *holding* BUMN migas, Pertamina membentuk *subholding* yang bertujuan untuk mendukung perubahan tersebut. *Holding* berperan untuk mengelola portofolio dan sinergi bisnis di seluruh grup *holding*, mempercepat pengembangan usaha baru, serta menjalankan program-program nasional.

Sedangkan anak perusahaan yang ditetapkan sebagai *subholding* berperan untuk mendorong *operational excellence* melalui pengembangan dan sinergi dalam bisnisnya masing-masing, mempercepat pengembangan usaha dan kapabilitas di bisnis *existing*, serta meningkatkan kemampuan dan fleksibilitas dalam kemitraan dan pendanaan.

Salah satu anak perusahaan yang ditunjuk sebagai *subholding refining and petrochemical* adalah PT Kilang Pertamina Internasional (KPI), yang saat ini secara serius menggarap beberapa proyek kilang strategis nasional.

Karena itu, kami mengupas kiprah PT KPI sebagai bahasan utama edisi Maret 2021. Kami berharap ulasan ini dapat memberikan gambaran kepada pembaca setia Energia tentang perkembangan bisnis kilang dan petrokimia Pertamina sekarang.

Selamat membaca. ■

DEVELOPMENT OF REFINERY AND PETROCHEMICAL BUSINESS

After being mandated to become the holding of oil and gas SOE, Pertamina formed subholdings which aim to support the change. A holding plays a role in managing portfolios and business synergies across the holding group, accelerating new business development, and running national programs.

Meanwhile, the subsidiaries designated as the subholdings have the role of encouraging operational excellence through development and synergies in their respective businesses, accelerating business development and capabilities in existing businesses, and increasing capability and flexibility in partnerships and funding.

One of the subsidiaries appointed as the refining and petrochemical subholding is PT Kilang Pertamina Internasional (KPI), which is currently working on several national strategic refinery projects.

Therefore, we highlight the progress of PT KPI as the main topic of the March 2021 edition. We hope that this review will give loyal readers of Energia an overview of the current development of Pertamina's refinery and petrochemical business.

Happy reading. ■



Cover Story

BERGERAK BERSAMA DEMI KELAS DUNIA WORKING TOGETHER FOR A WORLD-CLASS COMPANY

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FROM SURVIVORS
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PRIORITAS TUJUAN PEMBANGUNAN BERKELANJUTAN (TPB) PERTAMINA

PERTAMINA'S SUSTAINABLE DEVELOPMENT GOAL's (SDGs) PRIORITIES

Tujuan Pembangunan Berkelanjutan (TPB) dideklarasikan pada tanggal 25 September 2015 di Kantor Pusat PBB New York oleh 193 negara sebagai komitmen Agenda Pembangunan Global. Sejak deklarasi ini, implementasi TPB semakin menguat dari tahun ke tahun. Seperti tercermin dari *Private Equity Responsible Investment Survey* 2019 yang dilakukan PricewaterhouseCoopers (PwC), dimana sebanyak 67% responden dari *private equity* (perusahaan investasi) di 35 negara/wilayah telah mengidentifikasi dan memprioritaskan TPB yang relevan dengan investasinya. Jumlah ini merupakan peningkatan dari hasil survei PwC yang sama di tahun 2016, di mana hanya 38% responden yang telah melakukan hal tersebut.

Fenomena tumbuhnya kesadaran akan implementasi TPB ini tak hanya terjadi di perusahaan manca negara. Pertamina,

The Sustainable Development Goals (SDGs) was declared on 25 September 2015 at the United Nations Headquarters in New York, by 193 countries, as a commitment to the Global Development Agenda. Following the declaration, SDGs implementation is growing year by year. According to the 2019 Private Equity Responsible Investment Survey conducted by PricewaterhouseCoopers (PwC), 67% of respondents from private equity firms, from 35 countries/regions, have identified and prioritized the SDGs that are relevant to their investment. The result shows an increase in comparison to similar survey in 2016, in which only 38% respondents did the identification.

The concern of SDGs implementation has increased and become phenomena that is not only occurred in global companies but also Indonesia. As one of the strategic



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sebagai salah satu BUMN strategis di Indonesia, turut mendukung pencapaian TPB melalui pelaksanaan program berbasis Lingkungan – Sosial – Tata Kelola (LST) di seluruh wilayah operasionalnya. Sesuai dengan arahan Kementerian BUMN, telah dipetakan sepuluh prioritas terbaru TPB untuk dijalankan Pertamina dan tiga perusahaan lainnya dalam kluster energi, yakni Tujuan 1 Tanpa Kemiskinan, Tujuan 4 Pendidikan yang Berkualitas, Tujuan 5 Kesetaraan Gender, Tujuan 7 Energi Bersih dan Terjangkau, Tujuan 8 Pekerjaan Layak dan Pertumbuhan Ekonomi, Tujuan 12 Konsumsi dan Produksi yang Bertanggung Jawab, Tujuan 13 Penanganan Perubahan Iklim, Tujuan 14 Ekosistem Laut, Tujuan 15 Ekosistem Darat, dan Tujuan 16 Perdamaian, Keadilan, dan Kelembagaan yang Tangguh.

State-Owned Enterprises (SOEs) in Indonesia, Pertamina continuously supports the achievement of SDGs by implementing programs based on environmental, social, and governance (ESG) aspects in its entire operation. In the implementation, the company also refers to Letter No. 348 MBU DS 11 2020 from the Ministry of State-Owned Enterprises (SOEs) regarding the Preparation of the SOEs' Corporate Social Responsibility Program in 2021, stating 10 SDG Priorities for the Energy, Oil and Gas Cluster. Those priorities are SDG 1, No Poverty; SDG 4, Quality Education; SDG 5, Gender Equality; SDG 7, Clean and Affordable Energy; SDG 8, Decent Work and Economic Growth; SDG 12, Responsible Consumption; SDG 13, Climate Action; SDG 14, Life Below Water; SDG 15, Life on Land; and SDG 16, Peace, Justice and Strong Institutions.

Sepuluh prioritas TPB Pertamina tersebut juga menggambarkan harmonisasi antara tujuan berkelanjutan Pertamina sebagai perusahaan energi dengan tujuan yang menjadi prioritas pemerintah dengan mengusung tujuan-tujuan yang terkait dengan kerja dan pertumbuhan ekonomi, energi yang terjangkau dan bersih, perubahan iklim, pendidikan yang inklusif dan berkualitas serta penghilangan kemiskinan. Selain sepuluh prioritas di atas, Pertamina juga turut mendukung prioritas TPB lainnya melalui berbagai inisiatif dan program-program terkait peningkatan kualitas LST.

Bertumbuhnya perhatian Pertamina pada TPB dan integrasi LST mencerminkan kesadaran perusahaan terhadap manajemen risiko yang lebih komprehensif dan dampaknya yang dapat menghasilkan sentimen positif dari pemangku kepentingan terhadap perusahaan. Hal ini selaras dengan arahan dari Committee of Sponsoring Organizations of the Treadway Commission (COSO) dan World Business Council for Sustainable Development (WBCSD) yang mempercayai bahwa kerangka kerja manajemen risiko perusahaan (*Enterprise Risk Management*) harus dimanfaatkan untuk menangani masalah LST sehingga akan mendukung perusahaan untuk mencapai tujuan bisnis dan meningkatkan nilai jangka panjang. ■

The 10 SDG priorities of Pertamina also illustrates the harmonization between Pertamina's sustainability goals as an energy company with government's priorities by carrying out goals related to work and economic growth, affordable and clean energy, climate change, inclusive and quality education, and poverty alleviation. In addition to the 10 priorities, Pertamina strives to achieve other SDGs through various initiatives and programs in relation to ESG.

Pertamina's growing concern on SDGs and ESG integration reflects the company's awareness about comprehensive risk management and its impacts, which can generate positive sentiment from the company's stakeholders. This resonates with the suggestion from the Committee of Sponsoring Organisations of the Treadway Commission (COSO) and the World Business Council for Sustainable Development (WBCSD) who believe that a company's Enterprise Risk Management (ERM) framework should be leveraged to address ESG issues so that it will support the company to achieve business goals and increase long-term value. ■

Bertumbuhnya perhatian Pertamina pada TPB dan integrasi LST mencerminkan kesadaran perusahaan terhadap manajemen risiko yang lebih komprehensif dan dampaknya yang dapat menghasilkan sentimen positif dari pemangku kepentingan terhadap perusahaan.

Pertamina's growing concern on SDGs and ESG integration reflects the company's awareness about comprehensive risk management and its impacts, which can generate positive sentiment from the company's stakeholders.

10 PERTAMINA'S SUSTAINABLE DEVELOPMENT GOAL'S (SDGS) PRIORITIES

As one of the strategic State-Owned Enterprises (SOEs) in Indonesia, Pertamina continuously supports the achievement of SDGs by implementing programs based on Environmental, Social, and Governance (ESG) aspects in its entire operation. These are 10 SDG's priorities, Nevertheless are also include in our programs.

1 NO POVERTY



- Infrastructure investment: built 60 Km roads in Bante Tirus Regency, Central Kalimantan

5 GENDER EQUALITY



- 33,2% women in PERTAMINA's Board of Directors composition 16% female employees in management
- Women empowerment through entrepreneurial health program especially Posyandu and educational activities activities and public

8 DECENT WORK AND ECONOMIC GROWTH



- Decent work and economic growth
 - CSR Pertamina Berdikari: Rp72,52 billion CSR cost realization in 2020 (Desa Binaan, Desa Sejahtera COVID-19, Desa Wiskita, Desa Mandiri Rangon)
 - Pertamina Partnership Program: more than IDR 475 billion cost realization in 2020 from various sectors.
 - 96,69% local suppliers in PERTAMINA's supply chain, supporting 25% local content target in 2020
- Increasing production and adding oil and gas reserves
- Revamping and upgrading existing Refinery Unit (RU) and development of new refineries
- Upholding Human Rights in employment relationship

13 CLIMATE ACTION



Climate action

- Emission release lining in 2020 to renew 30% Emission Reduction Roadmap in 2030
- IDR 19,11 billion CSR cost for Pertamina Hijau: Mangrove planting, processing waste using methane gas for household / UKM needs, utilizing village embankments as mitigation of forest and land fires.

16 PEACE JUSTICE AND STRONG INSTITUTIONS



Life below water

- Anti-Fraud Program and Integrity Policy
- ISO 37001:2016 SMAP Certification
- Whistleblowing system & New PERTAMINA Clean
- State Official Asset Report Obligation
- GCG Assessment
- Digital Transformation to improve governance and risk compliance
- GCG Assessment
- State Official Asset Report

QUALITY EDUCATION

4 INCLUSIVE EDUCATION



- Pertamina Cerdas CSR with IDR 33,40 billion CSR cost realization (Kompetisi Sosial Bumi-Sekolah Tapel Batoe, Education for People with disabilities, ENDURO Student Program)
- Comprehensive trainings for employees: 2,5 million training hours of realization or equal to 182 hours per employee

- Internship programs for college students and students
- Top Talent Development Program and Talent Development Acceleration

Clean and affordable energy

7 AFFORDABLE AND CLEAN ENERGY



- Target of 20% increase in NGL (energy mix) in 2024
- Increase in total generating capacity to 10,2 Giga Watt through the development of HRE projects
- Allocation of 7% of the Capital Expenditure for HRE in the Company's Long-Term Plan Expenditure for HRE in the Company's Long-Term Plan
- Contribution of 15,000 kWh in SBO conversion kits for Banten and Jawa
- Implementation of Solar Power Plants at 63 Pertamina Gas Stations with a total of 385 kWp
- Solar Panel CSR Programs, Biogas Innovation, Solar and Wind Power, Water Risk Management, and Micro Hydro-Power Plant

Responsible consumption

12 RESPONSIBLE CONSUMPTION AND PRODUCTION



- Pink Movement: Realization of Rp48,311 billion for 267 outlets and 146 small businesses
- Bintoro fruit utilization program to absorb oil in PEP Tambun Field, to reduce chemicals by 32%/34%
- FT Moss superior seed rice development program million per year with a reduction in the use of chemical fertilizers by up to 30%
- Entrepreneurship Education Program and FT Revolu food independence
- Processing of used cooking oil into biodiesel

Life below water

14 LIFE BELOW WATER



- Coastal CleanUp Program
- Reef conservation and Mangrove planting to become Marine Ecosystem
- Seaweed Cultivation
- Educational collaboration program with Banten and NGOs

Life on land

15 LIFE ON LAND



- Biodiversity program/conservation for flora and fauna with endangered, threatened, vulnerable, and almost threatened status)

REPOSI SI BISNIS KILANG PERTAMINA

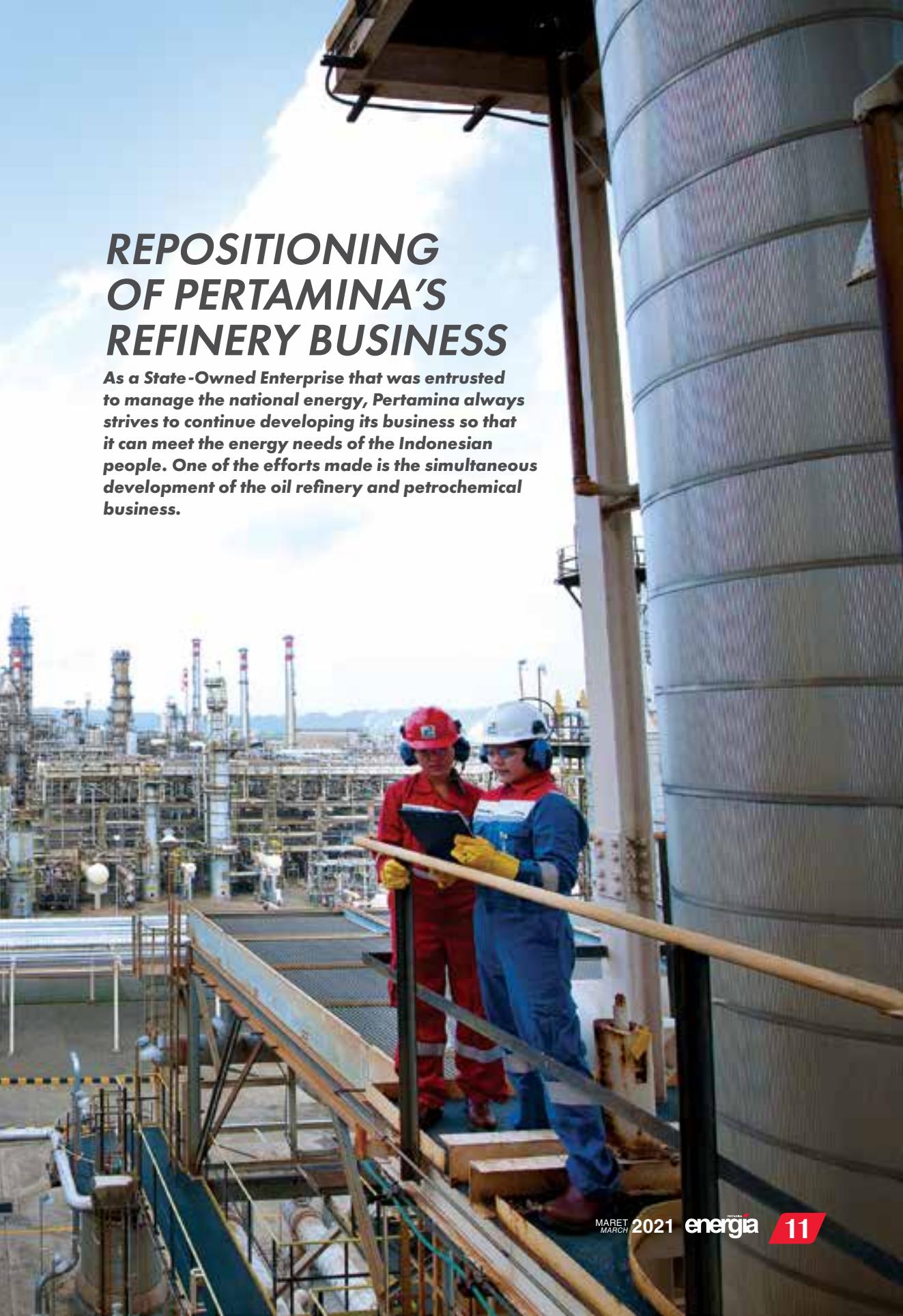
Sebagai Badan Usaha Milik Negara yang diamanahkan untuk mengelola energi nasional, Pertamina selalu berupaya terus mengembangkan usahanya agar dapat memenuhi kebutuhan energi masyarakat Indonesia. Salah satu upaya yang dilakukan adalah pengembangan bisnis kilang minyak dan petrokimia secara simultan.

Dua pekerja RU VI Cilacap sedang melakukan pengecekan fasilitas produksi dikilang RU IV Cilacap.
Two workers of RU VI Cilacap are checking the production facilities at RU IV Cilacap factory

 PERTAMINA

REPOSITIONING OF PERTAMINA'S REFINERY BUSINESS

As a State-Owned Enterprise that was entrusted to manage the national energy, Pertamina always strives to continue developing its business so that it can meet the energy needs of the Indonesian people. One of the efforts made is the simultaneous development of the oil refinery and petrochemical business.





TO ENERGIA/ADITYO PRATOMO

Dalam berbagai kesempatan, Direktur Utama Pertamina Nicke Widyawati mengungkapkan, tujuan utama pengembangan bisnis kilang minyak dan petrokimia tersebut agar produksi dari kilang Pertamina dapat memenuhi kebutuhan dalam negeri. "Dengan begitu, Indonesia tidak perlu lagi mengandalkan impor produk BBM dan petrokimia sehingga tercipta kemandirian dan ketahanan energi nasional," ujarnya.

Karena itu, pada 13 November 2017, Pertamina mendirikan PT Kilang Pertamina Internasional (KPI). PT KPI dibentuk sebagai *Special Purpose Vehicles* (SPV) Pertamina yang fokus dalam melaksanakan

On various occasions, Pertamina President Director Nicke Widyawati has said that the main objective of developing the oil refinery and petrochemical business is so that production from Pertamina's refineries can meet domestic needs. "That way, Indonesia no longer needs to rely on imports of fuel and petrochemical products, which will result in national energy independence and security," she said.

Therefore, on 13 November 2017, Pertamina established PT Kilang Pertamina Internasional (KPI). PT KPI was formed as Pertamina's Special Purpose Vehicles (SPV) which focuses on managing



Menurut CEO Refinery & Petrochemical Subholding (PT KPI), Djoko Priyono, KPI berupaya maksimal menjalankan tugas untuk menyediakan produk BBM dan non-BBM dengan baik.

According to the CEO of Refinery & Petrochemical Subholding (PT KPI), Djoko Priyono, KPI is trying its best to carry out its duties to provide fuel and non-fuel products properly.

pengelolaan investasi serta mitra, khususnya dalam bisnis kilang pengolahan dan petrokimia.

PT KPI juga menjadi wakil dari Pertamina dalam pembentukan dua perusahaan lainnya, yaitu Kilang Pertamina Balikpapan (KPB) yang fokus dalam pengembangan Kilang Balikpapan dan Pertamina Rosneft Pengolahan dan Petrokimia (PRPP) yang merupakan *joint venture* antara Pertamina dan Rosneft untuk pembangunan kilang Grass Root Refinery (GRR) Tuban.

Sesuai dengan aspirasi Pertamina menjadi *global energy champion* pada 2024, pada 13 Juni 2020, PT KPI diamanahkan untuk menjadi induk salah satu *subholding* Pertamina,

investment and partners, especially in the refinery and petrochemical business.

PT KPI is also a representative of Pertamina in the formation of two other companies, namely the Pertamina Balikpapan Refinery (Kilang Pertamina Balikpapan/KPB) that focuses on the development of the Balikpapan Refinery and Pertamina Rosneft Processing and Petrochemical (PRPP) that is a joint venture between Pertamina and Rosneft for the construction of Tuban Grass Root Refinery (GRR).

In accordance with Pertamina's aspiration to become a global energy champion in 2024, on 13 June 2020, PT KPI was entrusted to

yaitu *subholding refining & petrochemical* (subholding R&P). Subholding ini mengelola bisnis kilang secara end-to-end, mulai dari pengelolaan minyak mentah, pengoperasian kilang, dan komersialisasi produk. Dengan penunjukan tersebut, PT KPI diharapkan bisa menjalankan bisnis kilang menjadi lebih fokus, fleksibel, independen, dan berorientasi profit sehingga dapat menorehkan kinerja yang semakin baik.

Menurut CEO Refinery & Petrochemical Subholding (PT KPI) Djoko Priyono, KPI berupaya maksimal menjalankan tugas untuk menyediakan produk BBM dan non-BBM dengan baik. Djoko menjelaskan, upaya tersebut merupakan implementasi dari visi menjadi perusahaan kilang minyak dan petrokimia berkelas dunia. PT KPI juga berupaya menjalankan bisnis kilang minyak dan petrokimia secara profesional serta berstandar internasional dengan prinsip keekonomian yang kuat dan berwawasan lingkungan.

“Dalam menjalankan visi misi tersebut, kami juga berpegang pada Tata Nilai AKHLAK, yaitu Amanah, Kompeten, Harmonis, Loyal, dan Kolaboratif, yang merupakan nilai utama BUMN serta didukung dengan penerapan Critical Five Behavior (C5B) untuk

become the parent company of one of Pertamina’s subholdings, namely refining & petrochemical (R&P) subholding. This subholding manages the refinery business in an end-to-end manner, starting from crude oil management, refinery operations, and product commercialization. With this appointment, PT KPI is expected to make the refinery business more focused, flexible, independent, and profit-oriented so that it can give better performance.

According to the CEO of Refinery & Petrochemical Subholding (PT KPI) Djoko Priyono, KPI is trying its best to carry out its duties to provide fuel and non-fuel products properly. Priyono explained that this effort was an implementation of its vision to become a world-class oil refinery and petrochemical company. PT KPI also strives to run the oil refinery and petrochemical business professionally and according to international standards with strong economic principles and an environmental perspective.

“In carrying out this vision and mission, we also adhere to the AKHLAK Values, namely Trustworthy, Competent, Harmonious, Loyal, and Collaborative, which are the main values of SOEs and are supported by the implementation of the Critical



Djoko Priyono
CEO Refinery & Petrochemical Subholding (PT KPI)
CEO of Refinery & Petrochemical Subholding (PT KPI)

“Fokus kami dalam lini ini adalah mengolah minyak mentah yang ekonomis serta menjaga stock level sehingga dapat meningkatkan efisiensi dan margin kilang. Selain itu, kami sedang mengkaji inisiatif lainnya, seperti inventory hedging dan supplier held stock,”

“Fokus kami dalam lini ini adalah mengolah minyak mentah yang ekonomis serta menjaga stock level sehingga dapat meningkatkan efisiensi dan margin kilang. Selain itu, kami sedang mengkaji inisiatif lainnya, seperti inventory hedging dan supplier held stock,”



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mencapai kinerja terbaik," ujarnya.

Ia mengatakan PT KPI memiliki beberapa lini bisnis. *Pertama*, pengelolaan minyak mentah mulai dari pengadaan minyak mentah yang diolah di dalam kilang serta melaksanakan optimasi *feedstock*.

"Fokus kami dalam lini ini adalah mengolah minyak mentah yang ekonomis serta menjaga *stock level* sehingga dapat meningkatkan efisiensi dan margin kilang. Selain itu, kami sedang mengkaji inisiatif lainnya, seperti *inventory hedging* dan *supplier held stock*," katanya.

Kedua, pengoperasian kilang untuk melakukan pengolahan minyak mentah melalui enam kilang yang tersebar di Indonesia dengan kapasitas terpasang mencapai ~1 juta barel per hari.

"Dalam hal ini, keandalan dan efisiensi kilang menjadi fokus kami. Karena itu, kami telah menyusun sejumlah program inisiatif, baik yang tergolong *value protection* ataupun *value*

Five Behavior (C5B) to achieve the best performance," he said.

According to him, PT KPI has several business lines. The first is the management of crude oil, from procuring crude oil that is processed in refineries to implementing feedstock optimization.

"Our focus in this business line is to process economical crude oil and maintain stock levels so as to increase refinery efficiency and margins. Apart from that, we are currently reviewing other initiatives, such as inventory hedging and supplier held stock," he said.

The second is the operation of refineries to process crude oil through six refineries spread across Indonesia with an installed capacity of ~1 million barrels per day.

"In this case, the reliability and efficiency of refineries is our focus. Therefore, we have compiled a number of initiative programs, classified as either value protection or value

creation untuk menjadikan kilang Pertamina dalam posisi Q1/top quartile,” ujarnya.

Ketiga, pengelolaan dan komersialisasi produk, yaitu optimasi pengelolaan produk kilang. KPI terus berupaya untuk dapat menghasilkan produk BBM dan petrokimia bernilai jual tinggi sehingga dapat memaksimalkan profit margin di kilang.

“Kami juga berupaya untuk mengoptimalkan anak-anak perusahaan Pertamina lainnya sebagai *trading arm* dalam komersialisasi produk petrokimia dan excess produk,” kata Djoko.

Keempat, pengembangan infrastruktur kilang, seperti Proyek Refinery Development Master Plan (RDMP) dan Grass Root Refinery (GRR) yang merupakan penugasan dari pemerintah dan termasuk dalam proyek strategis nasional.

“Melalui pengembangan ini, maka kilang kita nantinya akan mampu untuk memenuhi

creation to make Pertamina’s refineries in the Q1/top quartile position,” he said.

The third is product management and commercialization, which is the optimization of refinery product management. KPI strives to be able to produce fuel and petrochemical products with high selling value so as to maximize profit margins at refineries.

“We also try to optimize other Pertamina subsidiaries as a trading arm in the commercialization of petrochemical and excess products,” said Priyono.

The fourth is the development of refinery infrastructure, such as the Refinery Development Master Plan (RDMP) and the Grass Root Refinery (GRR) Projects which are an assignment from the government and are included in a national strategic project.

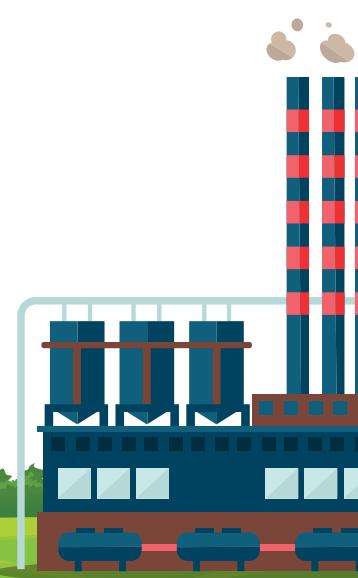
“Through this development, our refineries will be able to meet the needs of domestic fuel,

BUSINESS LINES OF PT KILANG PERTAMINA INTERNASIONAL

Management of crude oil from procuring crude oil that is processed in refineries to implementing feedstock optimization.



Operation of refineries to process crude oil through six refineries spread across Indonesia with an installed capacity of ~1 million barrels per day.



kebutuhan produk BBM, Non BBM serta Petrokimia dalam Negeri sehingga dapat mengoreksi defisit neraca perdagangan," jelasnya.

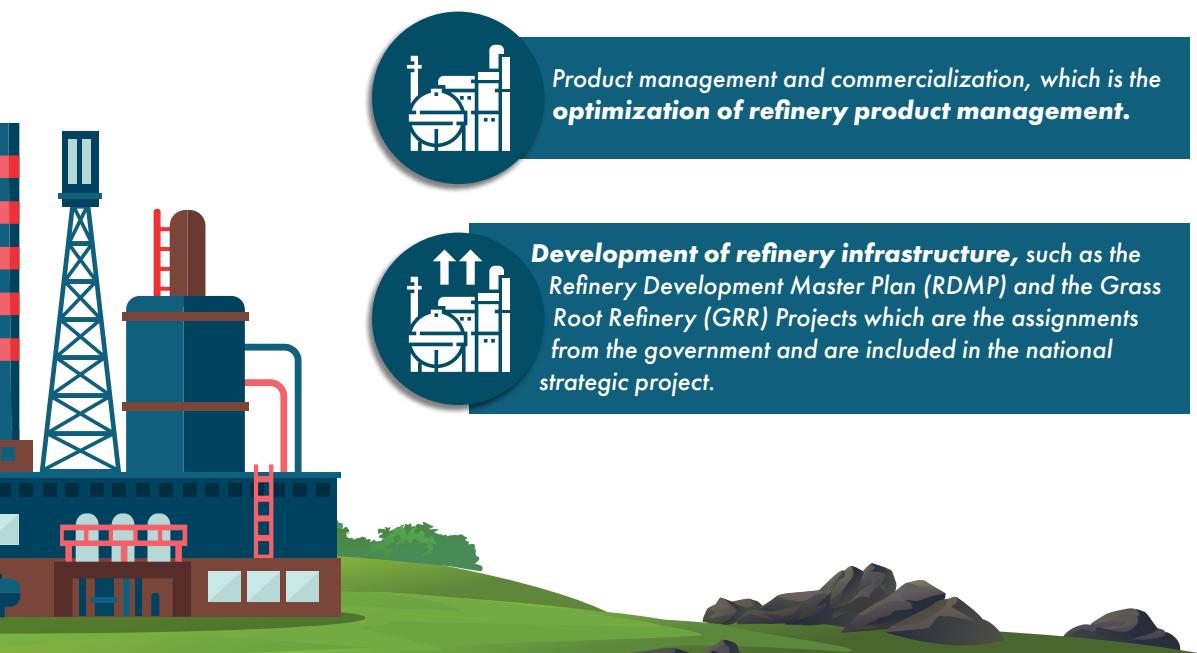
Bukan hanya memfokuskan diri dalam pengembangan di empat lini bisnis, PT KPI juga menjalankan program *community development* yang mengacu kepada ketentuan *Corporate Social Responsibility* (CSR) dan Tanggung Jawab Sosial Lingkungan (TJSL) Pertamina serta salah satu pilar prioritas strategis dari Kementerian BUMN, yaitu *Economic and Social Value for Indonesia*. Program CSR KPI di antaranya pemberdayaan serta pemberian edukasi kepada masyarakat, perbaikan sarana dan prasarana sosial, bantuan santunan, bantuan kesehatan akibat dampak COVID-19 dan penggunaan tenaga kerja lokal khususnya di sekitar wilayah proyek.

"Program CSR kami banyak ragamnya. Kami menjalankan bisnis berkelanjutan sehingga sangat mendorong program serta kebijakan yang dapat membangun ekonomi di sekitar wilayah kerja Pertamina, seperti di area operasi kilang, termasuk di lokasi proyek," ucap Djoko. ■

non-fuel and petrochemical products so that they can correct the trade deficit," he explained.

Not only focusing on development in four business lines, PT KPI also runs a community development program that refers to Pertamina's Corporate Social Responsibility (CSR) and Environmental Social Responsibility (TJSL) provisions as well as one of the strategic priority pillars of the Ministry of SOEs, namely Economic and Social Value for Indonesia. KPI's CSR programs include community empowerment and education, improvement of social facilities and infrastructure, compensation assistance, health assistance due to the impact of Covid-19 and the use of local labor, especially around the project areas.

"We have a variety of CSR programs. We are running a sustainable business so we really encourage programs and policies that can build the economy around Pertamina's working areas, such as the refinery operation areas, including the project sites," said Priyono. ■



KETAHANAN ENERGI DI TANGAN KPI

Agresivitas PT Kilang Pertamina Internasional (KPI) tidak hanya ditunjukkan melalui pengembangan lini bisnis. CEO Refinery & Petrochemical Subholding (PT KPI) Djoko Priyono menjelaskan, KPI juga memiliki program unggulan yang telah disusun secara sistematis.



ENERGY SECURITY IN THE HANDS OF KPI

The aggressiveness of PT Kilang Pertamina Internasional (KPI) is not only shown through the development of business lines. CEO of Refinery & Petrochemical Subholding (PT KPI) Djoko Priyono, explained that KPI also had excellent programs that had been arranged systematically.



Ada beberapa program unggulan KPI untuk meningkatkan kinerja perusahaan agar lebih baik," ujar Djoko dalam wawancara dengan Energia, 1 Maret lalu.

Pertama, Crude & Product Optimization, yaitu program untuk mengoptimalkan *feedstock* melalui optimasi pemilihan *crude* yang lebih ekonomis serta optimasi produk dengan memaksimalkan produksi Pertelite dan juga Dexlite untuk meningkatkan profit margin kilang.

Kedua, Inventory Management, yaitu pengelolaan *inventory crude* di kilang, seperti *level stock management*, *inventory hedging* dan *supplier held stock*.

Ketiga, Energy Efficiency, yaitu program pemanfaatan energi yang lebih ekonomis seperti PLN-isasi kilang, pemanfaatan eksternal gas, serta penggunaan energi alternatif (PLTS/Pembangkit Listrik Tenaga Hybrid).

Keempat, Reliability Improvement, yaitu program peningkatan keandalan kilang, seperti digitalisasi kilang, implementasi *Performance Service Agreement* (PSA) untuk peralatan kritis dan implementasi *Long Term Service Agreement* (LTSA) untuk pekerjaan perawatan kilang.

Kelima, Operational Cost Efficiency berisikan program-program lainnya yang berorientasi kepada penghematan biaya, seperti realokasi pembebanan komponen biaya *blending* dan aditif (FAME, dll) ke *subholding commercial & trading*, reformulasi harga jual produk petrokimia, optimalisasi anak perusahaan Pertamina lainnya sebagai *trading arm* produk petrokimia dan *excess* produk, optimalisasi *freight cost* HOMC antar-RU, optimalisasi *blending medium crude*, dan optimalisasi biaya katalis/aditif untuk proses operasi.

Menurut Djoko, untuk menjalankan program-program unggulan tersebut, PT KPI harus memperhatikan kapabilitas SDM-nya. Untuk



"**K**PI has several main programs to improve company performance," said Priyono in an interview with Energia, on 1 March.

The first is Crude & Product Optimization, which is a program to optimize feedstock through optimization of a more economical crude selection and product optimization by maximizing production of Pertelite and Dexlite to increase refinery profit margins.

The second is Inventory Management, which is the management of crude inventory at refineries, such as level stock management, inventory hedging and supplier held stock.

The third is Energy Efficiency, which is a more economical energy utilization program such as PLN refineries, external gas utilization, and alternative energy use (PLTS/Hybrid Power Plant).

The fourth is Reliability Improvement, such as refinery digitization, implementation of



Performance Service Agreement (PSA) for critical equipment and implementation of Long Term Service Agreement (LTSA) for refinery maintenance work.

The fifth is Operational Cost Efficiency, which consists of other programs that are oriented towards cost savings, such as reallocation of charges for blending and additive (FAME, etc.) components to commercial & trading subholding, reformulation of the selling prices of petrochemical product, optimization of other Pertamina subsidiaries as the trading arm for petrochemical product and product excess, optimization of HOMC freight cost between Refinery Units, optimization of medium crude blending, and optimization of catalyst/additive costs for operational processes.

itu, PT KPI juga menggulirkan program *Talent Development* untuk meningkatkan kompetensi para perwira melalui KPI Academy. Di akademi tersebut, terdapat pengembangan keahlian di berbagai bidang.

BUKTI KOMITMEN

Tidak hanya menjalankan program-program unggulan, komitmen PT KPI sebagai induk *subholding refining & petrochemical* juga ditunjukkan dengan menjalankan amanah pemerintah untuk melaksanakan proyek kilang strategis nasional melalui proyek Refinery Development Master Plan (RDMP) dan Grass Root Refinery (GRR).

“Terkait dengan pengembangan proyek kilang minyak dan petrokimia, saat ini kami sedang melakukan proses penyesuaian untuk memaksimalkan profitabilitas kilang, optimasi CAPEX, optimasi *balance supply demand*, serta menekan lebih banyak defisit neraca perdagangan,” tutur Djoko.

CEO Refinery & Petrochemical Subholding ini

According to Priyono, to carry out these main programs, PT KPI must pay attention to its HR capabilities. For this reason, PT KPI also launched a Talent Development program to improve the competence of perwira through the KPI Academy. At the academy, there are skill development programs for various fields.

EVIDENCE OF COMMITMENT

In addition to its main programs, PT KPI's commitment as the parent company of refining & petrochemicals subholding is also demonstrated by the execution of the government's mandate to work on the national strategic refinery project through the Refinery Development Master Plan (RDMP) and Grass Root Refinery (GRR) projects.

“Regarding the development of oil refinery and petrochemical projects, we are currently carrying out an adjustment process to maximize refinery profitability, optimize CAPEX, optimize the supply-demand balance, and reduce trade deficit,” said Priyono.

The CEO of Refinery & Petrochemical



Kilang Program Langit Biru Cilacap.

Cilacap Blue Sky Program Refinery.

menjelaskan, pelaksanaan proyek RDMP dan GRR juga merupakan salah satu dukungan KPI dalam transisi energi yang dilaksanakan oleh Pertamina. Hal ini juga sejalan dengan rencana pemerintah dalam mengembangkan bauran energi di Indonesia sesuai dengan Rencana Umum Energi Nasional (RUEN).

"Langkah-langkah yang telah kami susun, salah satunya yang berkaitan dengan implementasi biofuel adalah pengembangan *Green Refinery* Cilacap, dengan kapasitas di *Phase 1* sebesar 3 KBPD dari RBDPO, dan *Phase 2* sebesar 6 KBPD dari CPO. Kemudian pengembangan *Green Refinery* Plaju, dengan kapasitas sebesar 20 KBPD dari CPO. Selain itu kami juga terus laksanakan seperti utilisasi PLN/PLN-isasi di kilang, serta pemanfaatan eksternal gas, termasuk yang nantinya diperuntukkan untuk proyek kilang yang sedang berjalan saat ini," jelasnya.

Djoko menegaskan, target utama KPI tahun ini adalah profitabilitas. Dari aspek operasi, KPI menerapkan target yang lebih menantang dari tahun sebelumnya, di antaranya peningkatan

Subholding explained that the implementation of the RDMP and GRR projects was also one of KPI's supports in the energy transition carried out by Pertamina. This is also in line with the government's plan to develop the energy mix in Indonesia in accordance with the National Energy General Plan (RUEN).

"One of the steps that we have arranged in relation to the implementation of biofuel is the development of the Cilacap Green Refinery, with a capacity of 3 KBPD from RBDPO in Phase 1, and 6 KBPD from CPO in Phase 2. Then, there is also the development of the Plaju Green Refinery, with a capacity of 20 KBPD from CPO. In addition, we also continue to carry out other things such as the utilization of PLN/PLN refineries, as well as the use of external gas, including the one that will be allocated for refinery projects that are currently running," he explained.

Priyono emphasized that KPI's main target this year was profitability. From the operational aspect, compared to last year, KPI has implemented more challenging targets,

Dari aspek pengelolaan proyek, sesuai dengan kontrak manajemen, tahun ini PT KPI menargetkan beberapa *milestone*, di antaranya kontrak award untuk pekerjaan FEED *petrochemical to pharmaceutical project* yang akan dilaksanakan di Kilang Cilacap.

From the aspect of project management, according to the management contract, this year PT KPI is targeting several milestones, including the award contract for the FEED petrochemical to pharmaceutical project work which will be carried out at the Cilacap Refinery.

target Yield Available Product dari 75 persen menjadi 78,48 persen.

“Target produksi petrokimia juga kami naikkan dari 0,75 ton menjadi 0,94 juta ton. Alhamdulillah, saat ini bisa terealisasi 0,8 juta ton. Tahun lalu kami mampu melampaui target *Energy Intensity Index* (EII) dari 111 menjadi 109,56. Tahun ini, kami optimistis mampu mencapai 108,82,” katanya.

Dari aspek pengelolaan proyek, sesuai dengan kontrak manajemen, tahun ini PT KPI menargetkan beberapa *milestone*, di antaranya kontrak award untuk pekerjaan FEED *petrochemical to pharmaceutical project* yang akan dilaksanakan di Kilang Cilacap.

“Aspek lainnya yang merupakan turunan dari target *holding* (Pertamina, red), juga kami laksanakan, antara lain penyerapan TKDN, pembinaan *talent, risk management* dan lainnya. Masing-masing Direktorat sudah menyusun *initiative strategic* untuk pencapaian target PT KPI tahun ini,” ujar Djoko.

Djoko berharap kinerja PT KPI tahun ini lebih baik dibandingkan dengan tahun sebelumnya. Ia yakin, para perwira PT KPI dapat melakukan inovasi baru untuk mencapai target yang telah ditetapkan serta membangun bisnis kilang yang berorientasi pada profit.

“Alhamdulillah sejak terbentuknya PT KPI, para perwira PT KPI di bawah komando para General Manager di seluruh kilang sudah pola kerja menjadi *profit oriented*. Kami bergerak bersama-sama. Insyaa Allah pasti bisa,” tutupnya. ■

including an increase in the target of Available Product Yield from 75 percent to 78.48 percent.

“We also increase the petrochemical production target from 0.75 to 0.94 million tonnes. Alhamdulillah, currently 0.8 million tonnes can be realized. Last year, we were able to exceed our energy intensity index (EII) target from 111 to 109.56. This year, we are optimistic that we will be able to reach 108.82,” he said.

From the aspect of project management, according to the management contract, this year PT KPI is targeting several milestones, including the award contract for the FEED petrochemical to pharmaceutical project work which will be carried out at the Cilacap Refinery.

“We also carry out other aspects that are derived from the target of the holding (Pertamina, red), including the absorption of TKDN (local content requirement), talent development, risk management and others. Each directorate has developed strategic initiatives to achieve PT KPI’s targets this year,” said Priyono.

Priyono hopes that this year’s performance of PT KPI will be better than the previous year’s. He is sure that PT KPI’s perwira can make new innovations to achieve the set targets and build a profit-oriented refinery business.

“Alhamdulillah, since the formation of PT KPI, the perwira of PT KPI under the command of the General Managers at all refineries have become profit oriented. We move together. Insyaa Allah, we can do it,” he concluded. ■

PROGRESS OF OIL REFINERY AND PETROCHEMICAL PROJECT

Status February 2021

BALONGAN RDMP

PHASE 1:

- The development of physical works has reached **12.19%** as of 12 February 2021.
- Balongan RDMP project is targeted to come **onstream in the second quarter of 2022**.
- Will **increase the processing capacity** of the Balongan Refinery from 125 KBPD to 150 KBPD.

PHASE 2:

- Currently in **the finalization process** for the Rescaling study.

PHASE 3 OR WEST JAVA PETROCHEMICAL:

- Currently in **the process of finalizing land acquisition and negotiating key-terms** with CPC and LG Chem as potential partners.

BALIKPAPAN RDMP

PHASE 1:

- The development of physical works has reached **29.52%** as of 11 February 2021.
- Targeted to come **onstream in the third quarter of 2023**.
- Balikpapan refinery **processing capacity will increase from 260 KBPD to 360 KBPD**
- Increase product quality** to be equivalent to EURO V.

PHASE 2:

- The preparation of BED job bidding** is being carried out for the Sulfur Recovery Unit (SRU) and Hydrogen Manufacturing Unit (HMU).

CILACAP RDMP

- New DHT Scope:** currently BED work is being carried out.
- The Early Work has **reached more than 75.54%** as of 14 February 2021

PHASE 2:

- Finalization for the Rescaling study.

TUBAN GRR

- BED work has almost been completed, **reaching 99.4% as of 12 February 2021**, which will be continued with FEED work.
- **Payment for community land has been completed** and will continue with the commencement of land clearing for the area and ex-Perhutani land.

CILACAP BIOREFINERY

PHASE 1:

- The procurement process for Long Lead goods is currently underway.
- Phase 1 of the Cilacap Biorefinery is **targeted to be completed in December 2021**.
- Cilacap Refinery **will be able to process Green Diesel / D100** with a capacity of 3 KBPD which comes from RBDPO Feed.

PHASE 2:

- Currently working on FEED.
- Phase 2 of Cilacap Biorefinery is **targeted to come onstream in December 2022**.

PLAJU BIOREFINERY

- Currently an **integrated economic cooperation study is being carried out**.
- The FEED work is carried out in parallel.

PLAJU RDMP & DUMAI RDMP

- Currently in **the finalization process for the Rescaling study**
- Targeted to **complete in March 2021**.



KINERJA PROYEK STRATEGIS NASIONAL MAKIN TERARAH

NATIONAL STRATEGIC PROJECTS TO BECOME MORE FOCUSED

Sebagai BUMN energi, salah satu amanah pemerintah yang digarap serius oleh Pertamina adalah melaksanakan proyek kilang strategis nasional. Proyek tersebut yaitu Refinery Development Masterplan Program (RDMP) di empat kilang utama dan pembangunan kilang baru melalui Grass Root Refinery (GRR) di Tuban dan Bontang.

Peningkatan kapasitas kilang dimaksudkan untuk mengoptimalkan kuantitas dan kualitas produk BBM serta nafta. Bahkan untuk mengantisipasi penurunan *demand* terhadap

As an energy SOE, one of the government's mandates that Pertamina is seriously working on is implementing a national strategic refinery project. The project is the Refinery Development Masterplan Program (RDMP) that is done at four main refineries and the construction of new refineries through the Grass Root Refinery (GRR) in Tuban and Bontang.

The increase in refinery capacity is intended to optimize the quantity and quality of fuel and naphtha products. In fact, to anticipate



produk BBM di masa depan, Pertamina mengintegrasikan kilang BBM dengan petrokimia.

Komitmen Pertamina menjalankan amanah pemerintah tersebut mendapatkan apresiasi dari berbagai pihak, di antaranya pengamat minyak dan gas (migas) serta Anggota Dewan Perwakilan Rakyat Republik Indonesia (DPR RI) Komisi VII.

Pengamat Migas Indonesia Komaidi Notonegoro yang selama ini banyak menyoroti kinerja Pertamina mengakui proyek strategis yang sedang dilakukan oleh Pertamina melalui *subholding refining & petrochemical*, PT Kilang Pertamina International (PT KPI), sangat bagus karena merupakan kesinambungan program kerja dari direksi-direksi sebelumnya. Ia menilai, dengan adanya PT KPI kinerja proyek-proyek tersebut semakin terarah.

“Saya menilai implementasi kinerja proyek strategis nasional yang dikelola PT KPI sekarang cukup bagus. Sejak kepemimpinan Pak Dwi Soetjipto, Pak Massa Manik, sekarang Bu Nicke, sejak terbentuknya *holding* dan *subholding* semakin jelas tupoksinya untuk proyek-proyek strategis, seperti kilang,” ujarnya.

Menurutnya, proyek strategis nasional ini merupakan salah satu upaya Pertamina Group

the decline in demand for fuel products in the future, Pertamina has integrated fuel refineries with petrochemicals.

Pertamina's commitment to carry out the government's mandate has received appreciation from various parties, including oil and gas observers and members of the Commission VII of the House of Representatives of the Republic of Indonesia (DPR RI).

Indonesian Oil and Gas Observer Komaidi Notonegoro, who has observed Pertamina's performance thus far, acknowledged that the strategic projects carried out by Pertamina through the refining & petrochemical subholding, PT Kilang Pertamina International (PT KPI), was very good because it was a continuation of the work program of the previous directors. He assessed that with the presence of PT KPI, these projects have become more focused.

“I think that the current implementation of the national strategic projects that are managed by PT KPI is quite good. Under the leadership of Mr. Dwi Soetjipto, Mr. Massa Manik, and now Mrs. Nicke, since the formation of holding and subholdings, the main duties and functions of strategic projects, such as refineries, have become clearer,” he said.



© DOKUMEN ISTIMEWA

Komaidi Notonegoro

Pengamat Migas Indonesia
*Indonesian Oil and Gas
Observer*



“Saya menilai implementasi kinerja proyek strategis nasional yang dikelola PT KPI sekarang cukup bagus. Sejak kepemimpinan Pak Dwi Soetjipto, Pak Massa Manik, sekarang Bu Nicke, sejak terbentuknya holding dan subholding semakin jelas tupoksinya untuk proyek-proyek strategis, seperti kilang,”

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PT KILANG PERTAMINA INTERNASIONAL

dalam mewujudkan kemandirian energi sekaligus memberikan *multiplier effect* karena program ini akan menyerap tenaga kerja Indonesia yang cukup banyak.

“Dengan meningkatkan kapasitas kilang, jika kita terpaksa masih impor crude, paling tidak pengolahannya tetap di dalam negeri sehingga ada nilai tambah yang bisa dinikmati oleh masyarakat Indonesia. Penyerapan tenaga kerja lokal dan penggunaan TKDN akan memberikan manfaat ekonomi yang dapat berdampak secara nasional,” katanya.

Tugas PT KPI tidak bisa dipandang sebelah mata karena KPI juga harus memikirkan tren pertumbuhan ekonomi dan jumlah penduduk Indonesia dibarengi dengan pertumbuhan otomotif, baik motor maupun mobil sehingga perencanaan produksi BBM yang dilakukan harus matang. PT KPI juga harus menjalankan proyek strategis nasional sesuai dengan *roadmap* sehingga pelaksanaannya *clear and clean*.

“Harapannya proyek ini akan berjalan sesuai dengan target yang telah ditetapkan. Semoga PT KPI yang bagian dari Pertamina ini bisa memberikan kinerja yang terbaik menjadi ujung

According to him, this national strategic project is one of Pertamina Group's efforts in realizing energy independence while providing a multiplier effect as the program will absorb quite a lot of Indonesian workers.

“By increasing refinery capacity, if we still need to import crude oil, at least the processing will remain inside the country so that there is added value that can be enjoyed by the people of Indonesia. The absorption of local labor and the use of TKDN (local content requirement) will provide economic benefits that can have a national impact,” he said.

The task of PT KPI cannot be underestimated because KPI must also think about the trends in economic growth and the population of Indonesia, as well as the growth of automotive, both motorbikes and cars, so the fuel production must be planned properly. PT KPI must also carry out national strategic projects in accordance with the roadmap so that the implementation is clear and clean.

“Hopefully, the project will run according to the targets that have been set. We hope that PT KPI, which is part of Pertamina, can provide the

tombak atau bagian garda terdepan untuk memberikan pasokan energi di dalam negeri khususnya BBM, kemudian bisa menjadi upaya pemerintah dalam mewujudkan kemandirian dan ketahanan energi nasional," ujar Komaidi.

Senada, anggota DPR RI Komisi VII Fraksi PKB Abdul Wahid mengatakan program dalam proyek strategis nasional yang dikerjakan oleh KPI sangat membantu untuk kemandirian energi. Namun Pertamina perlu ingat bahwa ke depannya energi fosil akan semakin habis, dan Pertamina perlu melakukan terobosan-terobosan untuk mengembangkan *green energy* atau energi bersih.

Seperti diketahui, Pertamina juga mengembangkan *green energy* di kilang sebagai implementasi proyek strategis nasional dengan memaksimalkan salah satu potensi sumber daya energi baru terbarukan, yaitu minyak kelapa sawit yang melimpah. Ini adalah salah satu wujud nyata komitmen Pertamina untuk memenuhi kebutuhan alternatif *feed stock* sumber bahan baku. Memanfaatkan potensi energi dalam negeri, mengurangi impor *crude*, penggunaan energi ramah lingkungan karena sifatnya baru terbarukan. Saat ini, Pertamina mengembangkan *green refinery* untuk menghasilkan *green energy* tersebut

best performance as part of the front liners in the provision of energy supply, especially fuel, in the country, and hopefully it can become part of the government's efforts to realize national energy independence and security," said Notonegoro.

Likewise, a member of the PKB faction of Commission VII of the Indonesian House of Representatives, Abdul Wahid, said that the programs in the national strategic projects undertaken by KPI were very helpful for energy independence. However, Pertamina needs to remember that in the future, fossil energy will be increasingly depleted, and Pertamina needs to make breakthroughs to develop green energy.

As is well known, Pertamina also develops green energy at refineries as an implementation of the national strategic projects by maximizing one of the potential new and renewable energy resources, which is palm oil that is available in abundance. This is a concrete manifestation of Pertamina's commitment to meet the needs for alternative sources of feedstock, utilize potential domestic energy, reduce crude oil imports, and use





DOKUMEN ISTIMEWA

Abdul Wahid

Anggota DPR RI Komisi VII
Fraksi PKB
member of the PKB faction
of Commission VII of
the Indonesian House of
Representatives



Kalau energi baru terbarukan bisa dipikirkan dan dikelola dengan baik juga oleh Pertamina, tentu membuka peluang bagi kemandirian energi Indonesia karena garis pantai kita yang panjang bisa dibuat *solar home system* atau yang lain.

If new and renewable energy can be considered and managed properly by Pertamina, it certainly opens up opportunities for Indonesia's energy independence because our long coastline can be made into a solar home system or something else.

di Kilang Dumai, Kilang Plaju, dan Kilang Cilacap.

Sebagai wakil rakyat, ia berharap Pertamina bisa terus melakukan pekerjaannya dengan baik. Apa yang sudah direncanakan mengenai proyek strategis nasional seperti RDMP, GRR, PLBC, serta *Green Refinery* dilanjutkan sesuai dengan *roadmap*. Namun mulai sekarang Pertamina juga perlu memperhatikan atau fokus juga terhadap energi baru terbarukan karena potensi yang dimiliki Indonesia sangat besar.

"Kalau kilang, yes. Apa yang sudah direncanakan soal RDMP dan lainnya tetap dijalankan, tapi harus seimbang dengan pengembangan energi baru terbarukan. Kalau energi baru terbarukan bisa dipikirkan dan dikelola dengan baik juga oleh Pertamina, tentu membuka peluang bagi kemandirian energi Indonesia karena garis pantai kita yang panjang bisa dibuat *solar home system* atau yang lain. Jadi Pertamina terus melakukan terobosan untuk *green energy* lainnya. Tinggal pemerintah membuat regulasi serta insentifnya untuk *green energy* ini. Ketika Pertamina mengarah ke sana, harus dapat privilege dari negara," tuturnya. ■

environmentally friendly energy as it is renewable. Currently, Pertamina is developing a green refinery to produce the green energy at Dumai Refinery, Plaju Refinery and Cilacap Refinery.

As the people's representative, he hopes that Pertamina can continue to do its job well. What has been planned regarding national strategic projects such as RDMP, GRR, PLBC, and Green Refinery should be continued according to the roadmap. However, from now on, Pertamina also needs to pay attention to or focus on new and renewable energy because Indonesia has great potential.

"For refineries, yes. What has been planned regarding the RDMP and others should still be carried out, but it must be balanced with the development of new and renewable energy. If new and renewable energy can be considered and managed properly by Pertamina, it certainly opens up opportunities for Indonesia's energy independence because our long coastline can be made into a solar home system or something else. Therefore, Pertamina can continue to make breakthroughs for other green energy. Then, the government can make the regulations and incentives in regards with green energy. Once Pertamina makes the breakthrough, privileges from the country should be granted," he said. ■

Community Development



Hari Maulana



SEAD Jambi



Semua anak di Indonesia berhak mendapatkan pendidikan yang layak, tanpa terkecuali. Pendidikan yang layak tentunya sangat diharapkan anak-anak yang tinggal di daerah, termasuk anak-anak Suku Anak Dalam. Karena itu, Pertamina Hulu Energi (PHE) Jambi Merang bersama komunitas Sobat Eksplorasi Anak Dalam (SEAD) Jambi menyediakan pendidikan yang layak untuk mereka.

Suku Anak Dalam merupakan suku adat asli di pedalaman Jambi dan sebagian Sumatera Selatan yang hidup berpindah-pindah tempat (*nomaden*) atau melangun. Kebiasaan melangun itu dilakukan karena beberapa sebab, seperti salah satu anggota keluarga meninggal, hasil hutan di sekitar tempat tinggalnya habis, terjadinya musim buah, atau ada ancaman dari luar.

All children in Indonesia are entitled to a proper education, with no exception. A proper education is certainly expected by children living in remote areas, including the children of Suku Anak Dalam tribe. Therefore, Pertamina Hulu Energi (PHE) Jambi Merang works together with Sobat Eksplorasi Anak Dalam (SEAD) Jambi to provide them with proper education.

Suku Anak Dalam tribe is the nomadic indigenous tribe in the remote area of Jambi and parts of South Sumatra. The nomadic lifestyle is carried out due to several reasons, such as the death of a family member, increased scarcity of forest products around their residence, the occurrence of fruit season, or threats from outside.





MEMBUKA CAKRAWALA MASA DEPAN SUku Anak DALAM

CREATING A BRIGHTER FUTURE FOR SUKU ANAK DALAM TRIBE

Kepedulian PHE Jambi Merang terhadap anak-anak Suku Anak Dalam dimulai pada 2016. Anak usaha PHE ini melihat pentingnya pendidikan untuk anak-anak Suku Anak Dalam yang tinggal di sekitar fasilitas operasinya yang berlokasi di Sungai Kenawang .

Selama satu tahun, PHE Jambi Merang dan relawan SEAD melakukan pendekatan. Bukan hal yang mudah, tapi juga bukan tidak mungkin. Penolakan terjadi di awal ketika mereka memberikan pemahaman pentingnya pendidikan bagi anak-anak Suku Anak Dalam.

Gaya mengajar yang disesuaikan dengan keseharian mereka, memberikan efek positif dengan diterimanya pendidikan di wilayah Suku Anak Dalam ini. Pada akhirnya, di awal 2017 PHE Jambi Merang menghadirkan Istana Belajar yang disebut Sekolah Apung.

Sekolah Apung hadir untuk menjawab kebutuhan pendidikan di Suku Anak Dalam

PHE Jambi Merang's concern for Suku Anak Dalam children began in 2016. The subsidiary of PHE sees the importance of education for Suku Anak Dalam children who live around its operating facilities located on Kenawang River.

For one year, PHE Jambi Merang and SEAD volunteers made the efforts to approach the tribe. It was not an easy thing, but it was also not impossible. A rejection occurred at the beginning when they explained the importance of education for the children of Suku Anak Dalam tribe.

Teaching styles that are tailored to their daily routine gave a positive effect on the acceptance of education in the area of Suku Anak Dalam. In the end, at the beginning of 2017, PHE Jambi Merang established Istana Belajar (Learning Palace) called the Floating School.

The Floating School exists to meet the educational needs of Suku Anak Dalam tribe which has a nomadic lifestyle. Rapid progress



yang memiliki ciri berpindah-pindah ini. Kemajuan pesat dengan adanya Sekolah Apung ini yang juga bekerja sama dengan komunitas SEAD sebagai tenaga pengajar yang menyesuaikan kurikulum dan juga perilaku sehari-hari.

BUAH KESABARAN

Kesabaran dan ketekunan relawan pengajar SEAD mendidik anak-anak Suku Anak Dalam berbuah manis. Menurut salah satu relawan, Rischa Cosasi, delapan anak Suku Anak Dalam lulus ujian penyetaraan tingkat Sekolah Dasar. Pencapaian ini memacu semangat dan harapannya untuk terus menjalankan program pendidikan anak-anak Suku Anak Dalam tersebut.

"Kolaborasi awalnya itu dengan Reni Ayu Wulandari, Founder SEAD. Dia yang pertama langsung terjun ke lapangan untuk melakukan pendekatan teradap mereka. Sekarang ini setelah semuanya berjalan baik, saya meneruskan semangat

has been made with the existence of the Floating School, which also collaborates with the SEAD community members that work as teaching staff who adjust the curriculum with their daily behavior.

THE FRUIT OF PATIENCE

The patience and perseverance of SEAD teaching volunteers to educate the children of Suku Anak Dalam tribe finally bear sweet fruit. According to one of the volunteers, Rischa Cosasi, eight children of Suku Anak Dalam tribe passed the elementary school equivalency exam. This achievement ignited her enthusiasm and hope to continue carrying out the education program for the children of the Suku Anak Dalam tribe.

"The initial collaboration was with Reni Ayu Wulandari, founder of SEAD. She was the first one to go directly to the field to approach the members of the tribe. Now that everything is going well, I continue her

LEMBAR IMPIAN

SAD MUARA MEDAK



itu, progress-nya pun sangat bagus," ujar perempuan yang biasa dipanggil Coci.

Kini, delapan anak yang telah lulus ujian penyetaraan tingkat Sekolah Dasar tengah melanjutkan program pendidikan sekolah formal kelas 7 dan 8 sekolah menengah pertama di MTs Madaliyah, Kota Jambi.

HARAPAN KEBERLANJUTAN

Empat tahun bukanlah waktu yang singkat untuk menjalankan sebuah program yang berkelanjutan. Ada haru, tawa, canda, bahkan tangis mengiringi program pendidikan di Suku Anak Dalam.

Fajar Adha Zulmawan, Tim Corporate Social Responsibility PHE Jambi Merang, mengatakan, semua tantangan menjadi motivasi untuk terus lebih baik. "Program kami untuk Suku Anak Dalam di wilayah kerja PHE Jambi Merang merupakan program berkelanjutan," ujarnya.

"work in the same spirit, and the progress has been really good," said the woman who is better known as Coci.

Currently, the eight children who have passed the elementary school equivalency exam are continuing their formal school education program for grade 7 and 8 of junior high school at MTs Madaliyah, Jambi.

HOPE FOR SUSTAINABILITY

Four years is not a short time to run a sustainable program. Emotion, laughter, jokes, and even tears accompany the education program for Suku Anak Dalam tribe.

Fajar Adha Zulmawan, Corporate Social Responsibility Team of PHE Jambi Merang, said that all challenges faced became a motivation to get better. "Our program for the Suku Anak Dalam tribe around the work area of PHE Jambi Merang is a sustainable program," he said.



Risha Cosasi menerima penghargaan tingkat nasional atas kontribusi SEAD Jambi terhadap pemberantasan buta aksara. Penghargaan diserahkan langsung oleh Pendidikan dan Kebudayaan RI Pak Muhamdij Effendy pada Sabtu, 7 September 2019.

Risha Cosasi received a national award for the contribution of SEAD Jambi to the eradication of illiteracy. The award was handed over directly by Indonesian Education and Culture Pak Muhamdij Effendy on Saturday, September 7, 2019.

Fajar mengatakan, tantangan terakhir di program tersebut adalah menyusun exit strategy. "Harapan kami setelah bantuan ini selesai mereka tetap bisa bertahan dan mandiri seperti kehidupan masyarakat normal lainnya, tentu secara perlahan dan bertahap," ucapnya.

Coci juga berharap bahwa kolaborasi bersama PHE Jambi Merang akan terus berlanjut, tentunya dengan program yang lebih menarik lagi, khususnya untuk anak-anak Suku Anak Dalam agar terus difasilitasi hingga pendidikan tertinggi.

"Kami berharap, kolaborasi ini terus berlanjut tentunya dengan program yang lebih menarik lagi dan anak-anak ini terus difasilitasi," tutur Coci. ■

Fajar said that the final challenge in the program was to prepare an exit strategy. "Our hope is that after the assistance program is completed, they can still survive and be independent like other normal people, of course slowly and gradually," he said.

Coci also hopes that the collaboration with PHE Jambi Merang will continue, of course with even more interesting programs, especially for the children of Suku Anak Dalam tribe so that they can continue to be facilitated until they reach the highest education.

"We hope that this collaboration will continue, of course, with even more interesting programs and the children can continue to be facilitated," said Coci. ■



MAGGHA KARANEYA GEN Z YANG PEDULI DENGAN PENERUS GENERASI

MAGGHA KARANEYA
A GEN Z WHO CARES ABOUT
THE NEXT GENERATION

Siapa bilang generasi Z apatis dengan sekitarnya. Stereotip itu dipatahkan oleh Maggha Karaneya. Di saat gadis seusianya bersenang-senang dengan teman sebaya, perempuan kelahiran 3 Maret 1999 tersebut justru memilih untuk mengurus bayi-bayi terlantar dan calon ibu yang dikucilkan keluarganya, di Yayasan Metta Mama & Maggha yang terletak di Jalan Gunung Lawu No. 30, Denpasar, Bali.

TUMBUH DI KELUARGA FILANTROPI

Jiwa sosial Maggha ditanamkan sejak kecil oleh keluarganya hingga saat ini. Neneknya, Erlina Kang, terkenal di masyarakat Bali sebagai pribadi yang aktif dalam kegiatan amal. Orang tua Maggha, yakni Cahyadi dan Vivi Monata juga selalu melibatkan ketiga anak perempuan mereka dalam kegiatan amal sejak usia yang sangat muda.

Bahkan setiap perayaan ulang tahun selalu diisi dengan kegiatan sosial. Alih-alih memanjakan dengan pesta ulang tahun yang mewah, Cahyadi dan Vivi membawa mereka ke rumah orang-orang yang kurang beruntung dan merayakannya dengan memberikan sumbangan makanan.

Who says generation Z are apathetic to their surroundings? The stereotype is broken by Maggha Karaneya. When girls of her age are still having fun with their friends, the woman who was born on 3 March 1999 choose to take care of abandoned babies and mothers-to-be who are ostracized by their families, at the Metta Mama & Maggha Foundation which is located on Jalan Gunung Lawu No. 30, Denpasar, Bali.

GROWING IN A PHILANTROPICAL FAMILY

Karaneya's spirit of giving has been instilled by her family from her childhood days until today. Her grandmother, Erlina Kang, is well known in Balinese society as a person who is active in charity works. Not only that, Karaneya's parents, Cahyadi and Vivi Monata, have always involved their three daughters in charitable activities from a very young age.

In fact, every birthday celebration is always filled with social activities. Instead of treating them to lavish birthday parties, Cahyadi and Monata take them to the homes of the less fortunate and celebrate the occasion by giving food donations.



Metta Mama & Maggha Foundation
Jalan Gunung Lawu No. 30, Denpasar, Bali.





Pada 2015, Yayasan Metta Mama & Maggha resmi beroperasi dan bekerja sama dengan berbagai pihak terkait, seperti Dinas Sosial (Dinsos) Provinsi Bali.

In 2015, the Metta Mama & Maggha Foundation officially began operating. Since then, she has collaborated with various parties, such as the Bali Provincial Social Service.

"Sejak kecil, keluarga juga sering mengajak kami ke panti asuhan," cerita Maggha kepada Energia saat dihubungi secara daring, Sabtu 20 Februari 2021.

Budaya berbagi tersebut membentuk karakter Maggha. Hatinya tergerak untuk merangkul anak-anak kurang beruntung setelah mendengar banyak bayi terlantar di Bali. Maggha merasa terenyuh dan sangat khawatir jika bayi-bayi yang tersebut mengalami trauma di alam bawah sadarnya ketika tumbuh besar.

"Saya tidak ingin mereka hidup dengan trauma itu. Saya tidak ingin mereka merasa diterlantarkan, saya ingin mereka disayang," ucapnya.

Ia juga berpikir, bayi-bayi terlantar itu masih memiliki kesempatan kedua karena bisa kembali ke keluarga aslinya atau diasuh oleh keluarga baru yang bisa merawat dengan baik.

HOMESCHOOLING DEMI FOKUS KE YAYASAN

Maggha pun meminta izin sekaligus meyakinkan sang ibu untuk mendirikan sebuah yayasan sebagai tempat perlindungan bayi terlantar. Menurut Maggha, bayi-bayi tersebut akan memiliki kualitas hidup yang baik, serta mendapatkan cinta dan perhatian yang tulus. Bahkan Maggha memilih untuk menyelesaikan sekolah menengahnya melalui *homeschooling* agar bisa fokus mengelolanya dengan baik.

"Ibu saya mendukung. Waktu itu umur saya masih 15 tahun dan tidak memungkinkan saya

"Since we were young, our family often brings us along to the orphanage," said Karaneyha to Energia when contacted online, on Saturday, 20 February 2021.

The culture of sharing has formed Karaneyha's character. Her heart is moved to embrace the less fortunate children after hearing about the many neglected babies in Bali. Karaneyha is touched and worried if the babies would be traumatized in their subconscious mind when they grow up.

"I don't want them to live with the trauma. I don't want them to feel abandoned, I want them to feel loved," she said.

She also thinks that the abandoned babies still have a second chance because they can return to their original families or be cared for by a new family that can take good care of them.

HOMESCHOOLING TO FOCUS ON THE FOUNDATION

Karaneya then asked permission and convinced her mother to set up a foundation as a shelter for abandoned babies. According to Karaneyha, these babies will have a good quality of life and receive genuine love and attention. Karaneyha even decided to finish high school through homeschooling so that she could focus on managing the foundation.

"My mother was supportive. At the time, I was 15 years old and it wasn't possible



pribadi mendirikan yayasan, karena semua biaya, termasuk tanah berasal dari keluarga," ucapnya.

Pada 2015, Yayasan Metta Mama & Maggha resmi beroperasi. Sejak saat itu, ia bekerja sama dengan berbagai pihak terkait, seperti Dinas Sosial (Dinsos) Provinsi Bali. Yayasan pun dipercaya merawat puluhan bayi yang diterlantarkan oleh orang tuanya.

"Sekarang ada 25 bayi yang kami asuh. Kemarin ada 26, tapi sudah diadopsi satu. Sebelumnya, sudah lumayan banyak bayi yang diadopsi," tutur Maggha.

Untuk proses adopsi, Maggha menyatakan, yayasan mengikuti prosedur dan peraturan yang tegas dan ketat sesuai Peraturan Pemerintah (PP) Nomor 54 Tahun 2007, tentang pelaksanaan pengangkatan anak. Yayasan juga berkoordinasi dengan Dinsos Provinsi Bali dalam menjalankan aturan adopsi.

"Proses adopsi memakan waktu 8-10 bulan, sampai pengasuhan sementara, baru

for me personally to establish a foundation, because all costs, including land, came from my family," she said.

In 2015, the Metta Mama & Maggha Foundation officially began operating. Since then, she has collaborated with various parties, such as the Bali Provincial Social Service. The foundation is believed to care for dozens of babies who have been abandoned by their parents. "Now there are 25 babies that we care for. Yesterday there were 26 of them, but one has already been adopted. Previously, quite a number of babies have also been adopted," said Karaney.

For the adoption process, Karaney stated that the foundation followed strict procedures and regulations in accordance with Government Regulation Number 54 of 2007 concerning the implementation of adoption. The foundation also coordinates with the Bali Provincial Social Service in implementing adoption regulations.

"The adoption process takes 8-10 months until

penetapan pengadilan. Kami tetap pantau bayi-bayi yang diadopsi. Kami monitor kondisi bayi, terawat dengan baik atau tidak. Kami tidak berani tinggalkan karena kami sudah sayang," ujar Maggha.

Sejatinya, sebelum ada yang mengadopsi, yayasan yang dikelola Maggha juga melakukan mediasi dengan orang tua kandung atau keluarga bayi agar mau kembali menerima bayi tersebut dan merawatnya dengan baik.

Menurut Maggha, banyaknya kasus bayi terlantar biasanya karena ada tekanan yang sangat kuat terhadap ibu kandung sang bayi. Untuk itu, Maggha mengajak masyarakat Indonesia agar jangan menghakimi mereka. "Kita tidak berada di situasi mereka. Menurut saya, kalau kita tidak bisa menolong, minimal jangan menghakimi," katanya.

Perempuan muda yang dianugerahi sebagai Young Hero 2019 versi Kick Andy ini berpesan agar para orang tua bisa lebih memperhatikan dan mendengarkan anak-anaknya yang sudah beranjak remaja. Maggha juga mengimbau kepada generasi muda untuk bisa lebih menjaga diri dengan baik agar tidak mengambil keputusan yang akan disesali seumur hidupnya. ■

temporary care, followed by a court ruling. We continue to monitor the adopted babies. We monitor their condition, whether they are well taken care of or not. We don't dare to leave them all at once because we love them," said Karaneya.

In fact, before someone adopts the baby, the foundation that is managed by Karaneya also mediates with the biological parents or the baby's family so that they want to accept the baby again and take good care of him/her.

According to Karaneya, the high number of cases of abandoned babies is usually caused by a very strong pressure on the birth mother of the baby. Therefore, Karaneya asked the Indonesian people not to judge them. "We are not in their situation. In my opinion, if we can't help, at least don't judge," she said.

The young woman who was awarded the 2019 Young Hero award from Kick Andy encouraged parents to pay more attention on and listen to their teenage children. Karaneya also advised the younger generation to take better care of themselves so they wouldn't make decisions that would be regretted for the rest of their lives. ■

ADOPTION PROCEDURES

in accordance with Government Regulation Number 54 of 2007

 Prospective adoptive parents file an application.

 Meet the requirements of the Local Social Service.

 Complete the documents for the adoption process.

 Home visit I
Social reports on the eligibility of prospective adoptive parents.

 Receive 6-month Foster Permit from Provincial Social Service.

 Home visit II
Child development reports.

 PIPA Team (Team for Consideration of the Child's Licensing Permit Session) by Provincial Social Service.

 Adoption permit from Head of Provincial Social Service recommended by PIPA Team.

 All required documents (original) go to court.

 Court order.

 Adoptive parents get custody.

 Data recording by Provincial Social Service.

 Adoptive parents report the development of the child once a year.

POLUSI MENURUN DI TENGAH PAGEBLUK

LESS AIR POLLUTION DURING PANDEMIC





Selalu ada hikmah di tengah cobaan. Walau sejak akhir 2019 dunia mengalami pandemi *Corona Virus Disease 2019* (COVID-19) yang berdampak besar pada aspek kesehatan, sosial, dan ekonomi, sejumlah sejumlah artikel menyebutkan kondisi tersebut juga membawa dampak positif, khususnya dari sisi lingkungan. Kebijakan pembatasan aktivitas sosial di tengah pagebluk (pandemi, red) ini dinilai efektif memperbaiki kualitas udara. Benarkah demikian?

Dikutip dari www.kompas.com, ketika pemerintah Tiongkok mengeluarkan kebijakan *lockdown* di awal masa pandemi melanda, citra satelit menangkap bahwa tingkat polusi di negara tersebut turun drastis.

Melansir Science Alert pada 17 Maret 2020, para astronom juga menunjukkan penurunan secara drastis emisi nitrogen dioksida yang berasal dari gas buang kendaraan bermotor dan asap industri. "Penurunan emisi nitrogen dioksida di atas Lembah Po di Italia Utara sangat nyata," jelas Claus Zehner, manajer misi Badan Antariksa Eropa (ESA) Copernicus Sentinel-5P. Minimnya mobilitas masyarakat karena adanya kebijakan *lockdown* dinilai membuat kualitas udara menjadi lebih baik dan segar.

Hal serupa juga terjadi di India. Keputusan *lockdown* yang diambil oleh pemerintah India berpengaruh terhadap kualitas udara di negaranya. Bahkan, gugusan

There is always something to be grateful for in the midst of trials. Since the end of 2019, the world has been facing the Corona Virus Disease 2019 (COVID-19) pandemic which has had a major impact on health, social and economic aspects; however, a number of articles have stated that the condition has also brought a positive impact, especially in the environmental aspect. The social restriction policy that is regulated in the middle of the pandemic is considered to be effective in improving air quality. Is it true?

As reported by www.kompas.com, when the Chinese government issued a lockdown policy at the beginning of the pandemic, satellite images captured that the level of air pollution in the country had dropped dramatically.

Quoted from Science Alert on 17 March 2020, astronomers also showed a drastic reduction in nitrogen dioxide emissions from motor vehicle exhaust and industrial fumes. "The reduction in nitrogen dioxide emissions over the Po Valley in northern Italy is very noticeable," explained Claus Zehner, mission manager of the European Space Agency (ESA)'s Copernicus Sentinel-5P. The lack of community mobility



pegunungan Himalaya dapat terlihat dengan jelas dari jarak 200 km.

Bagaimana dengan kualitas udara di Indonesia? Sejak COVID-19 menyebar ke negara ini pada Maret 2020, pemerintah pun langsung membatasi mobilitas masyarakat.

Direktur Jenderal Pengendalian Pencemaran dan Kerusakan Lingkungan Kementerian Lingkungan Hidup dan Kehutanan (KLHK) MR Karliansyah menyebutkan, sejak pembatasan aktivitas sosial, tingkat polusi udara di Indonesia menurun. Menurutnya, kualitas udara di Indonesia membaik 42 persen sejak adanya pandemi.

"Kenyataannya, pergerakan manusia menggunakan kendaraan bermotor jauh berkurang selama pandemi. Dampaknya, polusi udara yang dihasilkan juga berkurang," jelas Karliansyah dalam acara *livestreaming* "Udara Bersih Langit Biru" yang diselenggarakan www.liputan6.com.

Karliansyah menambahkan, merujuk pada data KLHK, terdapat penurunan tingkat konsentrasi partikel PM 2,5 di beberapa daerah di Indonesia. PM 2,5 adalah partikulat berukuran 2,5

due to the lockdown policy is believed to have resulted in better and fresher air quality.

A similar thing happened in India. The Indian government's decision to enforce lockdown had made an impact on the air quality in the country. In fact, the Himalayas could be seen clearly from a distance of 200 km.

What about the air quality in Indonesia? Since the beginning of the spread of COVID-19 in the country in March 2020, the government has also enforced immediate restrictions on the community mobility.

Director General of Pollution and Environmental Damage Control of the Ministry of Environment and Forestry (KLHK), MR Karliansyah, said that since the enforcement of social restrictions, the level of air pollution in Indonesia had decreased. According to him, the air quality in Indonesia has improved by 42 percent since the pandemic.

"In reality, the community mobility using motorized vehicles has decreased significantly during the pandemic. As a result, the resulting air pollution is also reduced," explained Karliansyah during the "Blue Sky Clean Air"



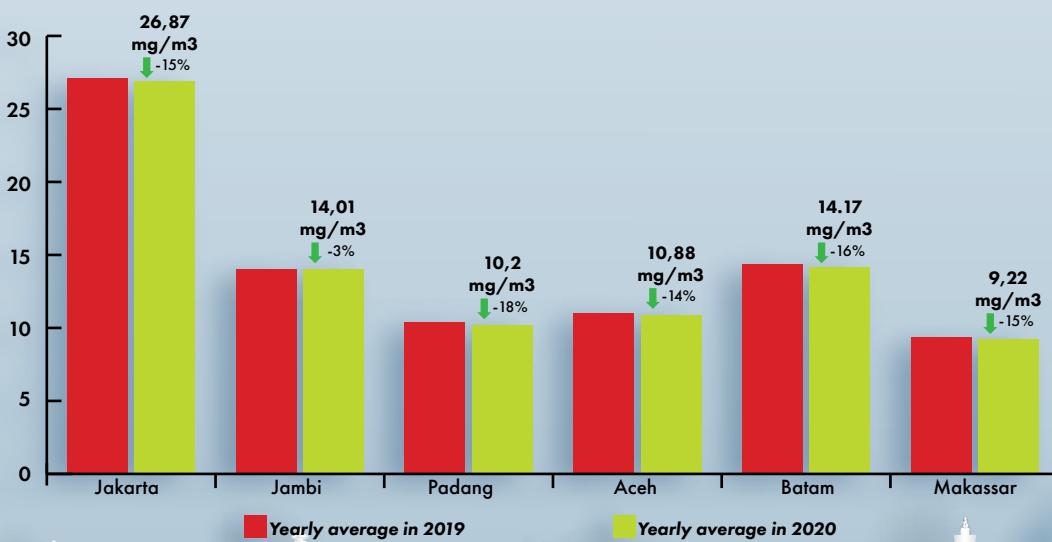
mikrometer yang berada di asap dan polusi yang berbahaya untuk pernapasan manusia.

Ia mencontohkan, di Jakarta, terjadi penurunan angka 15 persen dengan nilai rata-rata pada 2020 sebesar 26,87 mg/m³. Angka ini dinilai masih tinggi, lantaran Indonesia menerapkan standar baku mutu PM 2,5 sebesar 15 mg/m³. Sementara panduan WHO menyatakan standar baku mutu PM 2,5 sebaiknya 10 mg/m³.

Bahkan pada pertengahan Februari lalu, akun Instagram @wibisono.ari mengunggah sebuah foto pemandangan Gunung Gede Pangrango, Jawa Barat yang terlihat dari Kemayoran, Jakarta Pusat. Sang pemilik akun yang juga memotret pemandangan tersebut, Ari Wibisono meyakini, hasil jepretannya itu menandakan kualitas udara di Jakarta sedang bersih.

Berikutnya di Jambi, terdapat penurunan 3 persen, dengan rata-rata di 2020 sebesar 14,01 mg/m³. Lalu di Padang, turun 18 persen dengan nilai rata-rata tahunan 10,2 mg/m³. Di Aceh, turun 14 persen dengan rerata tahunan 10,88

DECREASE IN THE LEVEL OF PM 2.5 PARTICLE CONCENTRATIONS IN SEVERAL REGIONS IN INDONESIA



livestream event held by www.liputan6.com.

Karlansyah added, referring to the data from the Ministry of Environment and Forestry, that there was a decrease in the level of PM 2.5 particle concentrations in several regions in Indonesia. PM 2.5 is a particulate matter of 2.5 micrometers in smoke and air pollution that is harmful to human respiration.

He gave an example that in Jakarta, there was a 15 percent decline with an average value of 26.87 mg/m³ in 2020. This figure is still considered high, because Indonesia applies the PM 2.5 quality standard of 15 mg/m³. Meanwhile, the WHO guideline states that the PM 2.5 quality standard should be 10 mg/m³.

Even in mid-February, Instagram account @wibisono.ari uploaded a photo of the views of Mount Gede Pangrango, West Java that could be seen from Kemayoran, Central Jakarta. The owner of the account who also took the photograph, Ari Wibisono, believes that his shot indicates that the air quality in Jakarta at the time was clean.

According to Director General of Pollution and Environmental Damage Control of the Ministry of Environment and Forestry (KLHK), MR Karlansyah, the air quality in Indonesia has improved by 42 percent since the pandemic.



Gunung Gede-Pangrango yang terlihat dari kota Bogor, Jawa Barat.

Mount Gede-Pangrango as seen from the city of Bogor, West Java.

mg/m³. Di Batam, turun 16 persen dengan nilai rerata tahunan 14,17 mg/m³. "Lalu di Makassar turun 15 persen dengan nilai rata-rata pada 2020 sebesar 9,22 mg/m³," tambahnya.

Karena itu, untuk menjaga kualitas udara agar tetap baik, Karliansyah mengimbau agar masyarakat tetap memperhatikan gaya hidup ramah lingkungan. Misalnya dengan mengurangi penggunaan kendaraan bermotor pribadi dan menggantinya dengan berjalan kaki jika jarak dekat. Sedangkan untuk jarak sedang, masyarakat bisa menggunakan sepeda. Untuk jarak jauh, masyarakat bisa menggunakan transportasi umum. "Tentunya, transportasi umum harus menggunakan bahan bakar yang ramah lingkungan dan pembakarannya sempurna sehingga tidak menghasilkan emisi," ungkap Karliansyah sembari mengingatkan protokol kesehatan untuk mencegah penularan COVID-19. ■

Next in Jambi, there was a decrease of 3 percent, with an average of 14.01 mg/m³ in 2020. Then in Padang, it decreased by 18 percent with an annual average value of 10.2 mg/m³. In Aceh, it decreased by 14 percent with an annual average of 10.88 mg/m³. In Batam, it decreased by 16 percent with an annual average of 14.17 mg/m³. "Then in Makassar it decreased by 15 percent with an average of 9.22 mg/m³ in 2020," he added.

Therefore, to maintain good air quality, Karliansyah encouraged the public to have an environmentally friendly lifestyle. For example, by reducing the use of private motor vehicles and replacing them with walking if it is a short distance. Meanwhile, for moderate distances, people can ride bicycles. And for long distances, people can use public transportation. "Of course, public transportation must use environmentally friendly fuels and has complete combustion so that it does not produce emissions," said Karliansyah while reminding the public to keep implementing health protocols to prevent transmission of COVID-19. ■

 Innovation

PDSMR & Hari Maulana



Pertamina

MEMBIDIK BISNIS BATERAI BERBASIS LITHIUM FERROUS PHOSPHATE

*TARGETING THE BUSINESS OF
LITHIUM FERROUS PHOSPHATE BATTERY*

Banyak cara yang dilakukan Pertamina dalam mendukung pencapaian target pemanfaatan Energi Baru dan Terbarukan (EBT) sebesar 23 persen dalam bauran energi nasional pada 2025, seperti yang ditetapkan pemerintah dalam Rencana Umum Energi Nasional (RUEN). BUMN ini menyadari, selain dapat mengurangi emisi karbon yang memicu terjadinya pemanasan global dan dampak terhadap lingkungan, pengembangan EBT menjadi salah satu jawaban untuk memperkuat bisnis perusahaan.

Hingga saat ini, Pertamina mengembangkan beberapa jenis EBT, seperti energi surya dan geothermal. Masih ada jenis EBT lain yang berpotensi untuk dikembangkan, di antaranya energi bayu (angin) dan energi hidro.

Meskipun potensi EBT cukup besar tersedia di Indonesia, namun sebagian EBT menghadapi keterbatasan dalam suplai energi pada waktu tertentu atau yang disebut karakter intermittent. Sebagai contoh, energi surya hanya mampu menghasilkan daya apabila mendapat paparan sinar matahari. Begitu pula energi bayu hanya mampu memberikan daya apabila kincir dapat berputar saat tertuju angin.

Agar mampu menyimpan energi pada saat suplai EBT mengalami surplus energi, diperlukan peranti sehingga energi yang disimpan dapat digunakan pada saat

Pertamina has made various efforts to achieve the target of increasing the share of New and Renewable Energy (EBT) in the national energy mix use by 23 percent in 2025, as stated by the government in the National Energy General Plan (RUEN). This SOE realizes that in addition to reducing carbon emissions that trigger global warming and its impact on the environment, the development of renewables becomes one of the answers to strengthen the company's business.

Until now, Pertamina has developed several types of renewables, such as solar and geothermal energy. There are still other types of renewables that have the potential to be developed, including wind energy and hydro energy.

Although Indonesia has great potential for new and renewable energy, some renewables, which falls under the category of intermittent renewables, have limited energy supply during a certain time period. For example, solar energy can only generate power when exposed to sunlight. Such is the case of wind energy, which can only provide power if the mill rotates when blown by the wind.

To be able to store energy when the supply of renewables is experiencing a surplus, a device is needed so that the energy stored

Melihat peluang LIB sebagai *energy storage*, Pertamina melalui Power Development and Storage Management Research (PDSMR), Fungsi Research & Technology Innovation, melakukan optimasi formulasi LIB berbasis katoda *Lithium Ferrous Phosphate* (LFP).

Seeing the opportunity for LIB as energy storage, Pertamina through its Power Development and Storage Management Research (PDSMR), Research & Technology Innovation Function, has optimized the LIB formulation based on Lithium Ferrous Phosphate (LFP) cathodes.

dibutuhkan. Salah satu peranti penyimpan energi yang saat ini menjadi fokus pengembangan para periset di dunia adalah teknologi *Lithium-Ion Battery* (LIB).

"Dibanding teknologi baterai lain, seperti *lead-acid* dan NiMH, LIB mempunyai keunggulan densitas energi yang jauh lebih besar. Nilai densitas energi ini ditentukan dari beragam faktor. Namun yang utama adalah pemilihan material katoda dan anoda," ujar Hartoto Nursukatmo, Lead Specialist I Power Development and Storage Management Research Pertamina.

Melihat peluang LIB sebagai *energy storage*, Pertamina melalui Power Development and Storage Management Research (PDSMR), Fungsi Research & Technology Innovation, melakukan optimasi formulasi LIB berbasis katoda *Lithium Ferrous Phosphate* (LFP). Pertamina juga memproduksi prototipe LIB berkolaborasi dengan Universitas Sebelas Maret (UNS).

Hartato menjelaskan, dipilihnya baterai jenis LFP karena dapat diproduksi dengan bahan yang mudah didapat dan banyak tersedia. "Selain itu, LFP relatif aman dibanding dengan teknologi LIB lain, serta mempunyai durabilitas yang tinggi sehingga diproyeksikan memiliki masa pakai yang cukup lama," tuturnya.

Sementara Senior Specialist I Power Development and Storage Management Research Pertamina Hanida Nilasary menambahkan, optimasi formulasi merupakan kunci utama dalam pengembangan baterai. "Optimasi yang kami lakukan terkait dalam penentuan komposisi elektroda, ketebalan elektroda, material *loading*, serta rasio berat antara anoda dan katoda," ujarnya.

Hanida mengatakan, hal itu dilakukan untuk mendapatkan desain baterai dengan performa terbaik untuk digunakan sebagai landasan produksi prototipe LIB. "Tipe prototipe LIB



can be used when it is needed. One of the energy storage devices that is currently under development of researchers across the world is Lithium-Ion Battery (LIB).

"Compared to other battery technologies, such as lead-acid and NiMH, LIB has the advantage of much greater energy density. This energy density value is determined by various factors. But the main thing is the choice of cathode and anode materials," said Hartoto Nursukatmo, Pertamina's Lead Specialist I of Power Development and Storage Management Research.

Seeing the opportunity for LIB as energy storage, Pertamina through its Power



Development and Storage Management Research (PDSMR), Research & Technology Innovation Function, has optimized the LIB formulation based on Lithium Ferrous Phosphate (LFP) cathodes. Pertamina also produced an LIB prototype in collaboration with Sebelas Maret University (UNS).

Nursukatmo explained that the LFP battery type was chosen because it could be produced with materials that were easily accessible and widely available. "In addition, LFP is relatively safe compared to other LIB technologies, and has high durability so it is projected to have a long service life," he said.

Meanwhile, Pertamina's Senior Specialist I of Power Development and Storage Management Research, Hanida Nilasary, added that formulation optimization is the main key in battery development. "The optimization that we do is related to the determination of the electrode composition, electrode thickness, material loading, and the weight ratio between the anode and cathode," she said.

Nilasary said that it was done to get a battery design with the best performance to be used as the basis for the production of the LIB prototype. "The LIB prototype that we have developed uses the 18650-cylinder cell design (18 mm in diameter and 650 mm in height) with a maximum production capacity of 1,000 cells/day," she said.

yang kami kembangkan menggunakan desain *cylinder cell* 18650 (diameter 18 mm dan tinggi 650 mm) dengan kapasitas produksi maksimal 1.000 cells/hari," ucapnya.

Specialist II Power Development and Storage Management Research Pertamina Haryo Satriya Oktaviano menjelaskan, dari total prototipe baterai yang telah diproduksi, kapasitas optimum yang dicapai sudah cukup baik, yaitu sekitar 1.400 mAh dan memiliki spesifikasi yang komparabel dengan produk komersial.

"Hasil yang diperoleh dari penelitian ini dapat menjadi bekal untuk komersialisasi LIB dalam skala industri," tutur Haryo. ■

Pertamina's Specialist II of Power Development and Storage Management Research Haryo Satriya Oktaviano explained that, of the total battery prototypes that have been produced, the optimum capacity achieved has been quite good, which is around 1,400 mAh and has specifications that are comparable to commercial products.

"The results obtained from the research can be useful for the commercialization of LIB on an industrial scale," said Oktaviano. ■

MENJAGA NUTRISI PASIEN KANKER

MAINTAINING NUTRITION
OF CANCER PATIENTS



Tidak mudah bagi pasien kanker untuk menjalani hidupnya. Pengobatan medis yang dijalani tak jarang membuat mereka kekurangan asupan nutrisi. Bagaimana caranya agar pasien kanker dapat menjaga nutrisi untuk tubuhnya?

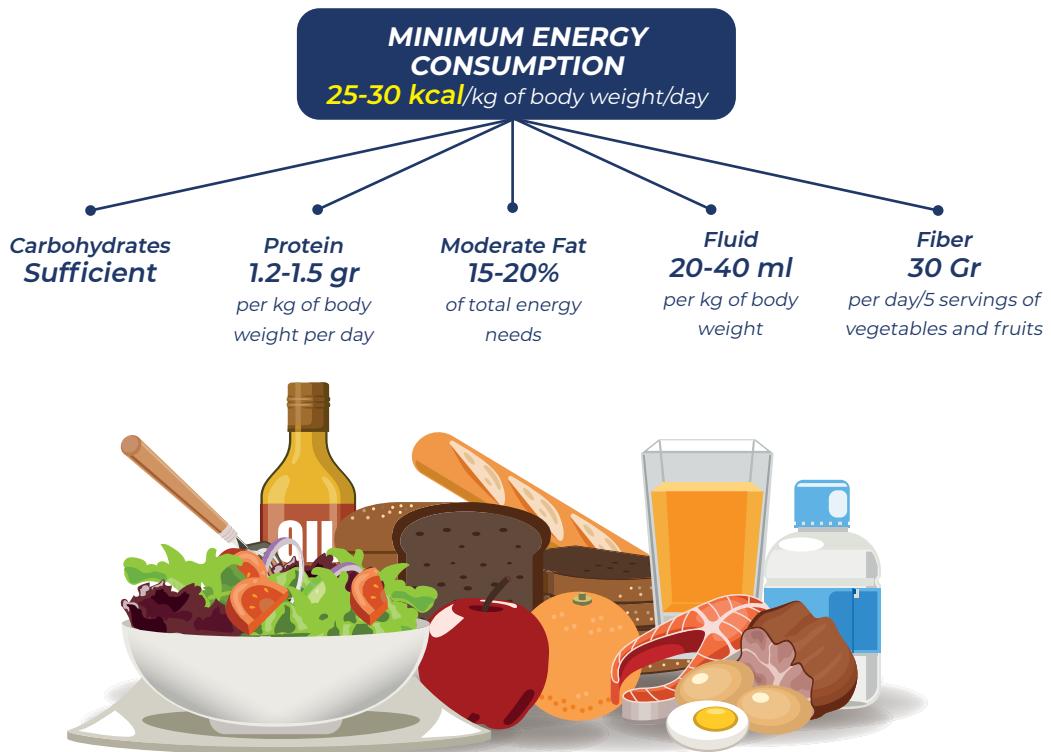
Menurut Kurniah Dian Puasahati, S.Gz, RD, ahli gizi di Instalasi Gizi Catering Rumah Sakit Pusat Pertamina (RSPP), asupan makanan yang tidak memenuhi syarat mengakibatkan malnutrisi atau kakeksia yang ditandai dengan asupan gizi kurang dari 70 persen, penurunan berat badan drastis, hilang massa lemak otot, dan retensi cairan.

"Akibat adanya kanker dalam tubuh dan efek dari terapi pengobatan membuat penderita kanker mengalami berbagai *problem* nutrisi. Apabila tidak segera diatasi dapat memperburuk kondisi kesehatannya," ujar Kurniah.

It is not easy for a cancer patient to live their life. Oftentimes, the medical treatments that they undergo can lead to a lack of nutritional intake. How can cancer patients maintain nutrition for their bodies?

According to Registered Dietitian Kurniah Dian Puasahati, a nutritionist at the Nutrition Installation of Pertamina Central Hospital (RSPP) Catering, food intake that does not meet the requirements results in malnutrition or cachexia which is characterized by nutritional intake of less than 70 percent, drastic weight loss, loss of muscle fat mass, and fluid retention.

"Due to the presence of cancer in the body and the effects of medical therapy, cancer sufferers experience various nutritional problems. If they are not addressed immediately, they can worsen their health condition," said Puasahati.



Dia juga menyebutkan, kecukupan gizi yang diperlukan pengidap kanker minimal energi 25-30 kcal per kilogram berat badan per hari, protein 1,2-1,5 gram per kilogram berat badan per hari, serta lemak sedang 15-20 persen dari kebutuhan energi total.

Selain itu, karbohidrat harus mencukupi, cairan 20-40 mililiter per kilogram (sesuai dengan *balance* cairan) serta serat 30 gram per hari atau lima porsi sayur dan buah setiap hari.

"Vitamin dan mineral, terutama vitamin A, B Kompleks, C, dan E juga diperlukan agar kondisi tubuh pasien kanker kembali pulih. Bila diperlukan, pasien kanker juga mendapatkan asupan suplemen," tambahnya.

Untuk mengatasi masalah nutrisi dalam beberapa kondisi yang dialami penderita kanker, Kurniah memberikan beberapa tips. Menurut Kurniasih, tips ini akan efektif meningkatkan jumlah nutrisi dalam tubuh penderita kanker jika didukung oleh keluarga atau orang-orang terdekat mereka.

"Mari bersama dukung mereka. Perhatian sekecil apapun sangat membantu mereka melewati hari-harinya," pesan Kurniah. ■

She also mentioned that the nutritional adequacy needed by cancer sufferers is at least 25-30 kcal of energy per kilogram of body weight per day, 1.2-1.5 grams of protein per kilogram of body weight per day, and 15-20 percent of moderate fat of total energy needs.

In addition, carbohydrates must be sufficient, and they need 20-40 milliliters of fluid per kilogram (according to the fluid balance) as well as 30 grams of fiber per day or five servings of vegetables and fruits every day.

"Vitamins and minerals, especially vitamins A, B Complex, C, and E, are also needed so that the cancer patient's body condition can recover. If needed, cancer patients can also get supplement intake," she added.

To overcome nutritional problems in several conditions experienced by cancer sufferers, Puasahati gave some tips. According to Puasahati, these tips will be effective in increasing the amount of nutrients in the body of cancer sufferers if supported by their family or closest ones.

"Let's support them together. Even the slightest attention really helps them get through their days," said Puasahati. ■



**Kurniah Dian
Puasahati, S.Gz, RD**

Ahli gizi di Instalasi Gizi Catering Rumah Sakit Pusat Pertamina (RSPP)
A nutritionist at the Nutrition Installation of Pertamina Central Hospital (RSPP) Catering



Asupan makanan yang tidak memenuhi syarat mengakibatkan malnutrisi atau kakeksia yang ditandai dengan asupan gizi kurang dari 70 persen, penurunan berat badan drastis, hilang massa lemak otot, dan retensi cairan.

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EFFECTIVE TIPS TO IMPROVE NUTRITION OF CANCER PATIENTS

If Anorexia Occurs

1. Food to be served in **small portions in regular intervals**.
2. Serve new type of food that is **their favorite**.
3. **Avoid drinking before eating.**
4. It is recommended to **consume 4-6 grams of omega-3 (fish oil)** per day (can increase appetite and prevent further inflammation).
5. Creating a **comfortable dining atmosphere** (meals should always be consumed together/accompanied by someone).

If There is a **Change in Taste**

1. Food or drink to be **given at room temperature or chilled**.
2. **Add appropriate seasonings** to add flavor.
3. **Drinks should be served fresh**, such as juice.

If Experiencing **Nausea & Vomiting**

1. Food to be given in **dry form**.
2. **Avoid foods with stimulating odors**.
3. **Avoid high fat foods**.
4. **Eat and drink slowly**.
5. **Avoid foods and drinks that are too sweet**.
6. **Do not lie down** after eating.

If the **Mouth and Throat Areas are Irritated**

1. Before eating, **the mouth must be clean** (rinse with water).
2. Food or drink to be provided at **room temperature or chilled**.
3. Food should be in **liquid form or filtered**.
4. **Avoid foods that are too sour and salty**, and food should be given in small portions.
5. **Drinks are given regularly** with the help of a straw.
6. If the saliva (the fluid produced by the salivary glands) is thick, it is best **not to give them bread and greasy food too often**.



KIAT SUKSES ALA NURHAYATI SUBAKAT

NURHAYATI SUBAKAT'S TIPS FOR SUCCESS

Siapa di balik nama besar Wardah Cosmetics? Brand lokal yang saat ini menjadi komestik pilihan perempuan Indonesia tersebut ternyata dibidani oleh Nurhayati Subakat yang merintis usahanya dari rumah.

"Saya mengenalkan produk komestik dari rumah ke rumah dan dari salon ke salon," ceritanya dalam Anugerah Prestasi Inkubasi Bisnis Rumah BUMN Pertamina 2021, 16 Februari lalu.

Menurut Nurhayati, dalam berbisnis yang terpenting bukanlah modal, melainkan kolaborasi, kerja keras, inovasi, dan bekerja dengan hati. "Saya pernah mengalami cobaan berat ketika pabrik kami terbakar, padahal saat itu Wardah sedang berkembang pesat. Saya mulai dari nol lagi. Alhamdulillah, sekarang menjadi *market leader* kosmetik di Indonesia," ucap CEO dari PT Paragon Technology and Innovation yang juga mengelola merk Make Over dan Emina.

Ia berpesan kepada UMKM Indonesia untuk percaya diri dalam mengembangkan bisnisnya. "Kita harus yakin dengan produk yang dijual," tuturnya. ■

Who is behind the famous brand Wardah Cosmetics? It turns out that the local brand, which is currently the top choice of Indonesian cosmetics for women, was founded by Nurhayati Subakat, who started her business from home.

"I introduced my cosmetic products from house to house and from salon to salon," she said in the 2021 Pertamina SOE Home Business Incubation Achievement Award, held on 16 February.

According to Subakat, the most important thing in doing business is not capital, but collaboration, hard work, innovation, and the ability to work with your heart. "I had a hard time when our factory caught fire, which happened when Wardah was growing rapidly. I started from zero again. Alhamdulillah, now we have become the market leader for cosmetics in Indonesia," said the CEO of PT Paragon Technology and Innovation, which also manages Make Over and Emina.

She encouraged Indonesian MSMEs to be confident in developing their businesses. "We have to be sure of the products that we sell," she said. ■



PROGRAM LANGIT BIRU, WHAT A BIG STEP

BLUE SKY PROGRAM: WHAT A BIG STEP

Program Langit Biru yang digulirkan Pertamina sejak tahun lalu mendapat acungan jempol dari Nadine Chandrawinata. Aktris yang juga seorang aktivis lingkungan mengutarakannya ketika menjadi salah satu panelis dalam talkshow dan webinar yang diadakan Yayasan Lembaga Konsumen Indonesia (YLKI) bersama Radio KBR, pertengahan Februari lalu.

"Menurutku, Program Langit Biru, *what a big step*. Program ini harus diperjuangkan setiap orang. Semua pihak harus berkolaborasi. Dengan menggunakan BBM ramah lingkungan, kita semua bisa mengubah kondisi udara Indonesia menjadi lebih bersih," ujar perempuan berdarah Jerman tersebut.

Putri Indonesia 2005 itu juga menyarankan, agar semua kalangan tergerak menggunakan BBM ramah lingkungan, buatlah terobosan untuk menyosialisasikan program tersebut.

"Di masa pandemi ini, terus lakukan sosialisasi secara digital. Buatlah yang ringan, dan lakukan satu per satu. Masyarakat jangan diberi informasi langsung banyak," jelas Nadine. ■

The Blue Sky program, which was launched by Pertamina last year, has got a thumbs up from Nadine Chandrawinata. The actress, who is also an environmental activist, expressed it when she became one of the panelists in a talk show and webinar held by the Indonesian Consumers Foundation (YLKI) with KBR Radio, last mid-February.

"What a big step for Pertamina to launch the Blue Sky Program. Everyone must fight for this program. All parties must collaborate. By using environmentally friendly fuels, we can all change Indonesia's air condition to be cleaner," said the woman with a German background.

The 2005 Putri Indonesia also encouraged Pertamina to make a breakthrough to socialize the program so that everyone can use environmentally friendly fuel.

"During this pandemic, continue to socialize the program digitally. Make it light, and do it one by one. Don't give people too much direct information," explained Nadine. ■



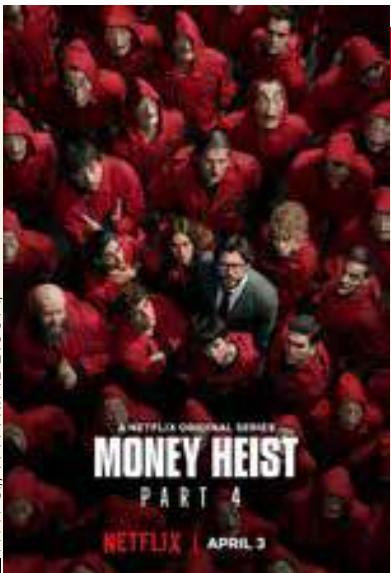
MENIKMATI SERIAL DARING UNTUK MELEPAS PENAT

ONLINE SERIES TO WATCH AND
SAVE YOU FROM BOREDOM



Salah satu cara menghibur diri ketika penat menyerang di saat pandemi seperti adalah dengan menikmati serial yang banyak disajikan melalui platform video daring, contohnya Netflix. Berikut enam serial berbagai genre yang bisa disaksikan melalui ponsel pintar atau TV pintar.

One way to entertain yourself when boredom strikes during the pandemic is watching TV series that are widely available through online video platforms such as Netflix. Here are six series of various genres that can be watched on a smart phone or smart TV.



MONEY HEIST

Money Heist mengisahkan tentang sekelompok orang yang melakukan perampokan di Gedung Royal Mint of Spain. Royal Mint merupakan gedung di Kota Madrid yang memproduksi uang negara. Tokoh sentral The Professor merekrut delapan orang yang disamarkan dengan nama-nama kota di dunia, yaitu Tokyo, Moskow, Berlin, Nairobi, Rio, Denver, Helsinki, dan Oslo. Ketika merampok, mereka menggunakan kostum *jumpsuit* merah dengan topeng dan menyandera beberapa orang. Ada banyak drama dan adegan menegangkan dengan *plot twist* yang tak terduga di serial ini.

Money Heist tells the story of a group of people who carried out a robbery at the Royal Mint of Spain Building. The Royal Mint is a building in the City of Madrid that produces state money. The main character, The Professor, recruited eight people disguised as the names of cities in the world, namely Tokyo, Moscow, Berlin, Nairobi, Rio, Denver, Helsinki, and Oslo. When carrying out the robbery, they wear red jumpsuits and masks and take several people hostage. There are many dramas and suspenseful scenes with unexpected plot twists in this series.

HTTPS://WWW.IMDB.COM/

THE UMBRELLA ACADEMY

Jika Anda tertarik dengan *superhero*, Anda dapat menyaksikan serial ini. Film seri tersebut bercerita tentang 7 "anak" Sir Reginald Hargreeves yang memiliki kekuatan super dan tergabung dalam kelompok bernama The Umbrella Academy. Mereka diharapkan bisa menjadi penyelamat dunia, meski belakangan, justru ikut berkontribusi terhadap datangnya "kiamat" bagi dunia.

If you are interested in superheroes, you can watch this series. The series tells the story of Sir Reginald Hargreeves's 7 "children" who have super powers and are members of a group called The Umbrella Academy. They are expected to be the saviors of the world, although near the end, they instead contribute to the coming of an "apocalypse" for the world.



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HTTPS://WWW.IMDB.COM/

Serial Netflix The Crown merupakan serial tentang kehidupan dan kepemimpinan Ratu Elizabeth II. Fokus utama dari The Crown ada pada intrik, konflik, skandal, dan politik yang mewarnai kehidupan keluarga Kerajaan Inggris. The Crown mendapatkan pujian karena relatif akurat dalam menggambarkan cerita kehidupan Ratu Elizabeth II.

Netflix series The Crown is a series about the life and leadership of Queen Elizabeth II. The main focus of The Crown is on the intrigues, conflicts, scandals and politics that happen to the life of the British Royal family. The Crown has been praised for being relatively accurate in depicting the life story of Queen Elizabeth II.

Hampir sama dengan Money Heist, Lupin juga memiliki premis tentang pencurian. Bedanya pencurian di serial ini dilakukan oleh satu orang, Assane Diop (Omar Sy) yang dilatarbelakangi dendam atas kematian ayahnya. Assane sendiri terinspirasi melakukan aksinya dari buku kisah pencurian Arsene Lupin, karya Maurice LeBlanc. Assane meniru strategi tersebut di dunian nyata.

Similar to Money Heist, Lupin also tells the story about theft. The difference is, the theft in this series is carried out by one person, Assane Diop (Omar Sy), who is motivated by revenge for the death of his father. Diop himself got the inspiration to do his action from the book about Arsene Lupine's theft by Maurice LeBlanc. Diop imitates the strategy in the real world.

LUPIN



HTTPS://WWW.IMDB.COM/

START-UP

Pasti Anda sering mendengar ulasan tentang serial ini. Start Up mengisahkan kehidupan beberapa anak muda dengan permasalahan hidup masing-masing. Tokoh utama tersebut adalah perempuan muda bernama Seo Dalmi (Bae Suzy) yang ingin menjadi CEO dan mendirikan perusahaan *start up*. Ia dicintai dua pria, Nam Dosan dan Han Ji Pyeoung, yang akan menambah keseruan alur cerita serial Korea yang dirilis akhir tahun lalu itu.

You must have heard a lot of reviews about this series. Start Up tells the story of the lives of several young people with their respective life problems. The main character is a young woman named Seo Dalmi (Bae Suzy) who wants to become a CEO and establish a start-up company. She is loved by two men, Nam Dosan and Han Ji Pyeoung, which will add to the excitement of the storyline of the Korean series that was released late last year.



©HTTP://PROGRAM.TVING.COM/TVN/STARTUP



HTTPS://WWW.IMDB.COM/

THE HAUNTING OF HILL HOUSE

Siapa yang suka cerita seram? Serial horor yang terdiri dari 10 episode ini berkisah tentang keluarga yang dihantui rentetan kejadian masa lalu yang mengerikan. Keluarga Crain tinggal di rumah berhantu yang mempengaruhi kehidupan mereka. Dalam setiap episode, Anda akan dikagetkan dengan *twist* yang berbeda dan hantu akan keluar dalam adegan-adegan yang tidak terduga. ■

Who likes scary stories? This 10-episode horror series tells the story of a family that is haunted by a series of terrible past events. The Crain family lives in a haunted house which affects their lives. In each episode, you will be surprised by different plot twists and the ghosts that will come out in unexpected scenes. ■

 DESTINATION

 Indah Nurnaeti

 Trisno Ardi

SENSASI PETUALANGAN BARU DENGAN ATV

**THRILLING SENSATION
OF ATV ADVENTURE**





Mencoba sesuatu yang baru untuk menghilangkan kejemuhan bisa dilakukan dengan berbagai cara. Salah satunya, merasakan sensasi petualangan dengan *All Terrain Vehicle* (ATV).

ATV merupakan perpaduan antara motor dan mobil atau dikenal dengan sebutan *quad* yang digunakan untuk olahraga *offroad* dan mampu menghadapi berbagai medan. Biasanya, wahana ATV berada di luar kota Jakarta karena membutuhkan tempat yang luas dengan berbagai rintangan. Semakin banyak rintangan di jalur *offroad*, wisatawan makin merasakan sensasinya.

Saat ini, wahana wisata ATV hadir juga di Jakarta. Masyarakat ibukota tak perlu jauh-jauh pergi luar kota untuk bermain ATV. Silakan datang ke ATV Adventure Indonesia (AAI) yang terletak di daerah Cipayung Jakarta Timur. Dengan panjang *track* sekitar 1,8 kilometer, AAI menawarkan nuansa alam di tengah hiruk pikuk kota.

Di AAI, anak kecil, remaja, sampai dewasa dapat mengendarai ATV. Wisatawan juga akan mendapatkan sensasi yang menyenangkan karena medannya dan nuansa alam yang disajikan. Medan tersebut terdiri dari lumpur atau kubangan air, pohon-pohon yang hijau, dan kontur jalan yang menantang. Tak perlu khawatir, selama masa pandemi COVID-19, protokol kesehatan diterapkan secara ketat dan semua perlengkapan untuk pengendara dibersihkan dengan teratur sesuai aturan yang berlaku.

Salah satu wisatawan asal Jagakarsa, Jakarta Selatan, Ardi sangat menikmati wahana ini. Walau baru pertama kali mencoba, ia tidak ragu mengendarai ATV karena diberikan arahan secara detil oleh instruktur AAI. "Wahana ini bisa menghilangkan kejemuhan, melatih konsentrasi, dan memacu adrenalin saya," ujarnya.



Trying something new to get rid of boredom can be done in various ways. One of them is by going on an adventure with *All Terrain Vehicle* (ATV) rides.

ATV is a combination of a motorbike and a car or better known as a quad that is used for off-road sports and able to ride through various terrains. Usually, ATV rides are available outside Jakarta because they require a large space with various obstacles. More obstacles on the off-road track will give the visitors more sensation.

Now, ATV rides are also available in Jakarta. Residents of the capital do not need to go far outside the city to go on ATV rides. All they need to do is go to ATV Adventure Indonesia (AAI), which is located in the Cipayung area



Ardi juga berbagi tips bermain ATV bagi para pemula seperti dirinya. "Yang paling utama, kita wajib menggunakan alat pelindung diri seperti helm sampai pelindung siku dan dengkul. Sebelum mengendarai ATV, kita juga harus melakukan pemanasan untuk menghindari risiko cedera," katanya.

Selain itu, pengendara harus menjaga kecepatan ATV, dengan medan yang berlumpur dan kontur jalan yang naik turun. "Kita juga harus mengikuti arahan instruktur yang berada di lokasi. Mulai dari pelajari sistem transmisi apakah manual atau automatic, handle gas pada jempol, jangan menurunkan kaki selama bermain, dan mainkan posisi tubuh melawan kemiringan ATV," tutur Ardi.



length of about 1.8 kilometers, AAI brings a sense of nature amidst the hustle and bustle of the city.

At AAI, small children, teenagers, and adults can ride ATVs. Visitors will also experience a thrilling sensation because of the terrains and the natural atmosphere. The terrains consist of mud or water puddles, green trees, and challenging road contours. There's no need to worry because during the COVID-19 pandemic, health protocols are strictly enforced and all equipment for motorists is cleaned regularly according to the required regulations.

One of the visitors from Jagakarsa, South Jakarta, Ardi, really enjoyed the ride. Even though it was his first time, he did not hesitate to ride the ATV because he was given detailed instructions by the AAI instructor. "This ATV ride can get rid of boredom, train concentration, and boost my adrenaline," he said.

Ardi also shared some tips on riding an ATV for beginners like himself. "Most importantly, we must use protective gears such as helmets and elbow and knee guards. Before riding an ATV, we also have to warm up to avoid the risk of injury," he said.

In addition, the rider must control the speed of the ATV, especially with the muddy terrains and the road contours. "We also have to follow the instructions that are given by the instructors on site, starting from learning whether the transmission system is manual or automatic, controlling the gas with the thumb throttle, not lowering your feet while riding, to moving your body position against the tilt of the ATV," said Ardi.

He reminded that before coming to AAI, don't



Ia mengingatkan, sebelum berangkat ke AAI, jangan lupa membawa baju ganti karena tubuh atau baju pasti terkena lumpur dari medan yang sudah dilewati. AAI juga menyediakan fasilitas untuk membersihkan diri.

Di AAI sebenarnya ada wahana wisata lainnya, seperti berkuda, naik motor trail, memanah, dan bermain *airsoft gun*. Harga tiketnya pun bervariasi. Permainan ATV 3 Lap Rp60.000, memanah 40 arrows Rp40.000, dan *airsoft gun* 50 BB Rp70.000.

Ada juga tiket sistem paket untuk motor trail *fun and play* dengan waktu 1 jam atau maksimal 20 lap yang dibanderol Rp200.000. *Bundling package* yang terdiri dari ATV 3 lap, memanah 40 arrows, dan *airsoft gun* 50 BB dihargai Rp150.000.

"Bahkan AAI juga menyediakan tenda saat bermain panahan agar kita terlindungi dari terik matahari," ucap Ardi.

Bagi yang penasaran ingin mencoba, AAI beroperasi mulai pukul 10.00—17.00 WIB pada Senin—Jumat. Sementara di akhir pekan atau Sabtu dan Minggu, AAI buka satu jam lebih awal, yaitu pukul 09.00 WIB. ■

of clothes because the mud from the terrain would stain your body or clothes. AAI also provides self-cleaning facilities.

At AAI, there are actually other attractions, such as horse riding, dirt bike riding, archery, and airsoft gun. Ticket prices also vary. The 3-lap ATV ride is priced at Rp60,000 (US\$4.20), while archery with 40 arrows is priced at Rp40,000 (US\$2.80) and airsoft gun with 50 BB is priced at Rp70,000 (US\$4.90).

There is also a package of fun and play trail motorbikes with a time limit of 1 hour or a maximum of 20 laps at the price of Rp200,000 (US\$14.01). Another bundling package consisting of a 3-lap ATV ride, 40-arrow archery, and 50-BB airsoft gun is priced at Rp150,000 (US\$10.51).

"AAI even provides tents for visitors who play archery so that we are protected from the sun," said Ardi.

For those who are curious to try, AAI operates from 10.00-17.00 WIB (UTC +7) on Monday-Friday. Meanwhile on the weekends or Saturdays and Sundays, AAI opens one hour earlier, which is from 09.00 WIB (UTC +7). ■



ATV ADVENTURE INDONESIA



Cipayung, Jakarta Timur



Weekdays, 10:00 AM - 05:00PM
Weekends, 09:00 AM - 05:00PM



The 3-Lap Atv Ride Rp60,000 (US\$4.20)
Archery With 40 Arrows Rp40,000 (US\$2.80)
Airsoft Gun With 50 BB Rp70,000 (US\$4.90)

PACKAGE Rp200,000 (US\$14.01)
1 Hour of fun and play trail motorbikes

BUNDLING PACKAGE Rp150,000 (US\$10.51)
- 3-Lap Atv Ride,
- 40-Arrow Archery
- 50-BB Airsoft Gun



GURIHNYA SUP SUMSUM DAN IGA SAPI RM PAK TARDJA

MR. TARDJA'S TASTY
BEEF MARROW AND
RIB SOUP





RM PAK TARDJA

Jalan Leuser No. 27, Kebayoran Baru, South Jakarta.

Mencari rumah makan dengan menu sup sumsum dan iga sapi di Jakarta rasanya tidaklah sulit. Tapi tidak semua rumah makan dapat menyajikan kuliner tersebut dengan cita rasa yang "mak nyus". Salah satu rumah makan yang mampu menghidangkannya dengan harga kaki lima tapi kualitas rasa bintang lima adalah Rumah Makan (RM) Pak Tardja.

Biasanya sup sumsum dan iga sapi tersedia di rumah makan yang menyajikan olahan berbahan dasar daging ayam, kambing, dan sapi, seperti sate, sup, tongseng, atau gulai. Aneka kuliner itu pula yang disajikan RM Pak Tardja yang berlokasi di Jalan Leuser No. 27, Kebayoran Baru, Jakarta Selatan.

Hampir seluruh menu di rumah makan yang sudah berdiri sejak 1965 ini menjadi andalan, mulai dari sate hingga sup kuah bening. Namun, sajian yang paling diidolakan pelanggan adalah sup sumsum dan iga sapi. Dalam sehari, RM

In Jakarta, it's not hard to find restaurants serving beef marrow and rib soup. But not all of them are equal in terms of taste. One of the restaurants that are able to serve them at street food's prices and five-star quality is RM Pak Tardja (Mr. Tardja's Restaurant).

Normally, beef marrow and rib soup is available in restaurants that serve dishes made from chicken, lamb and beef meat, such as satay, soup, tongseng, or curry. This variety of dishes is also available at RM Pak Tardja, which is located at Jalan Leuser No. 27, Kebayoran Baru, South Jakarta.

At the restaurant that has been established since 1965, almost everything on the menu is its signature dish, starting from satay to clear soup. However, the dish that is most favored by the customers



Pak Tardja bisa menghabiskan hingga 100 kilogram iga sapi dan 50 kilogram sumsum sapi.

Meskipun stok iga sapi yang disiapkan RM Pak Tardja banyak, tak jarang pelanggan harus gigit jari lantaran makanan yang diincarnya terlanjur habis. Kebanyakan dari mereka menyatakan, rasa sup iga di sini berbeda. Selain daging yang melimpah, kuahnya pun memiliki cita rasa khas tersendiri. Segar dan kaya akan rempah.

Salah satu pelanggan yang ketagihan adalah Menik Noviyanti. "Pertama kali mencoba, saya dan teman memesan sup sumsum dan iga sapi. Ternyata saat pesanan tiba porsinya sangat besar, kuahnya gurih, dan bumbunya juga meresap sampai ke dagingnya. Daging iganya sangat empuk sehingga gampang untuk diloloskan dari tulangnya. Akhirnya, sekarang sering mampir ke sini," ujarnya.

Tak hanya dari Jakarta dan sekitarnya, ada juga pelanggan yang datang dari luar kota, di antaranya Bambang. Warga asal Lampung

is beef marrow and rib soup. In a day, RM Pak Tardja can consume up to 100 kilograms of beef ribs and 50 kilograms of beef marrow.

Even though RM Pak Tardja has prepared a lot of beef ribs, they are often sold out. Most of the customers say that the taste of the rib soup here is different. Apart from the meat that comes in abundance, the soup also has its own distinctive taste. It is fresh and rich in spices.

One of the customers who cannot get enough of it is Menik Noviyanti. "The first time I tried it, my friend and I ordered the beef marrow and rib soup. When the order arrived, it turned out that the portion was very large, the soup was tasty, and the meat was well marinated. The ribs were so tender, so it was easy to remove the meat from the bone. Since then, I have become a regular," she said.

Not only from Jakarta and its surroundings, there are also customers who come from



ini mengaku selalu menyempatkan diri mampir ke RM Pak Tardja. "Kalau lagi ke Jakarta, saya selalu ke sini. Biasanya juga saya beli untuk keluarga," katanya.

Menurut Iyan, generasi ketiga pemilik RM Pak Tardja, sup sumsum dan iga sapi memang diolah dengan bumbu rahasia turun temurun. "Yang bikin beda, rasa supnya, kuahnya. Di sini, sup iga tidak pakai sayuran. Biasanya rumah makan lain menyajikan sup iga dengan sayur yang banyak, tapi dagingnya sedikit," tutur Iyan.

Tak hanya rasa kuahnya, potongan iga yang melimpah ditambah tiga potong sumsum sapi ukuran cukup besar,

outside the city, including Bambang. The Lampung resident admitted that he always made time to go to RM Pak Tardja. "When I go to Jakarta, I always come here. Normally, I also order takeaways for my family," he said.

According to Iyan, the third-generation owner of RM Pak Tardja, their beef marrow and rib soup is indeed made with secret spices and recipes that are passed down from generation to generation. "What makes it different is the taste of the soup. Here, the rib soup doesn't use vegetables. Normally, the rib soup at other restaurants comes with lots of vegetables and only a small amount of meat," said Iyan.

semakin menggugah nafsu makan pelanggan.

"Kami menjaga kualitas bahan baku dan makanan, mulai dari daging, hingga bumbu-bumbu yang digunakan. Saya terjun langsung di dapur untuk memastikan kualitas kuliner kami," ucapnya.

Cita rasa masakan yang tak berubah lebih dari lima dekade membuat pelanggan yang datang ke RM Pak Tardja semakin bertambah setiap hari. Tak hanya masyarakat biasa, kalangan ternama pun singgah untuk menikmati hidangan andalannya.

"Banyak artis yang singgah ke sini. Bahkan almarhum Wakil Presiden Hamzah Haz jika pesan sate bisa seribu sampai dua ribu tusuk. Kapolri Jenderal Badrodin Haiti, dan Kapolri Jenderal Sutarmen juga langganan kami," ujar pria 39 tahun itu.

Mau mencoba gurihnya sup sumsum dan iga sapi RM Pak Tardja? Silakan datang mulai pukul 08.00–17.00 WIB. Dari sisi harga, kuliner di rumah makan ini sangat terjangkau. Untuk makanan, harganya mulai Rp35 ribu hingga Rp41 ribu. Sedangkan minumannya, mulai dari Rp5 ribu hingga Rp10 ribu. ■

The taste of the soup is not its only signature, as it also comes with a great amount of rib meat plus three large pieces of beef marrow, which further increase the appetite of the customers.

"We maintain the quality of raw materials and our food, from the meat to the spices that we use. I work hands-on in the kitchen to ensure the quality of our food," he said.

Thanks to the taste of food that has not changed for more than five decades, the number of customers visiting RM Pak Tardja keeps increasing every day. Not only ordinary people, well-known figures have also stopped by to enjoy their signature dishes.

"Many actors have come here. Even the late Vice President Hamzah Haz used to order one to two thousand sticks of satay. National Police Chief General Badrodin Haiti and National Police Chief General Sutarmen are also our regular customers," said the 39-year-old.

Want to try RM Pak Tardja's tasty beef marrow and rib soup? You can visit the restaurant from 08.00–17.00 WIB (UTC +7). In terms of price, the dishes served at this restaurant are very affordable. For the food, the price starts from Rp35,000 (US\$2.46) to Rp41,000 (US\$2.88). Meanwhile, the drinks are priced from Rp5,000 (US\$0.35) to Rp10,000 (US\$0.7). ■

IYAN

THE THIRD-GENERATION OWNER OF RM PAK TARDJA

The Day in Pictures

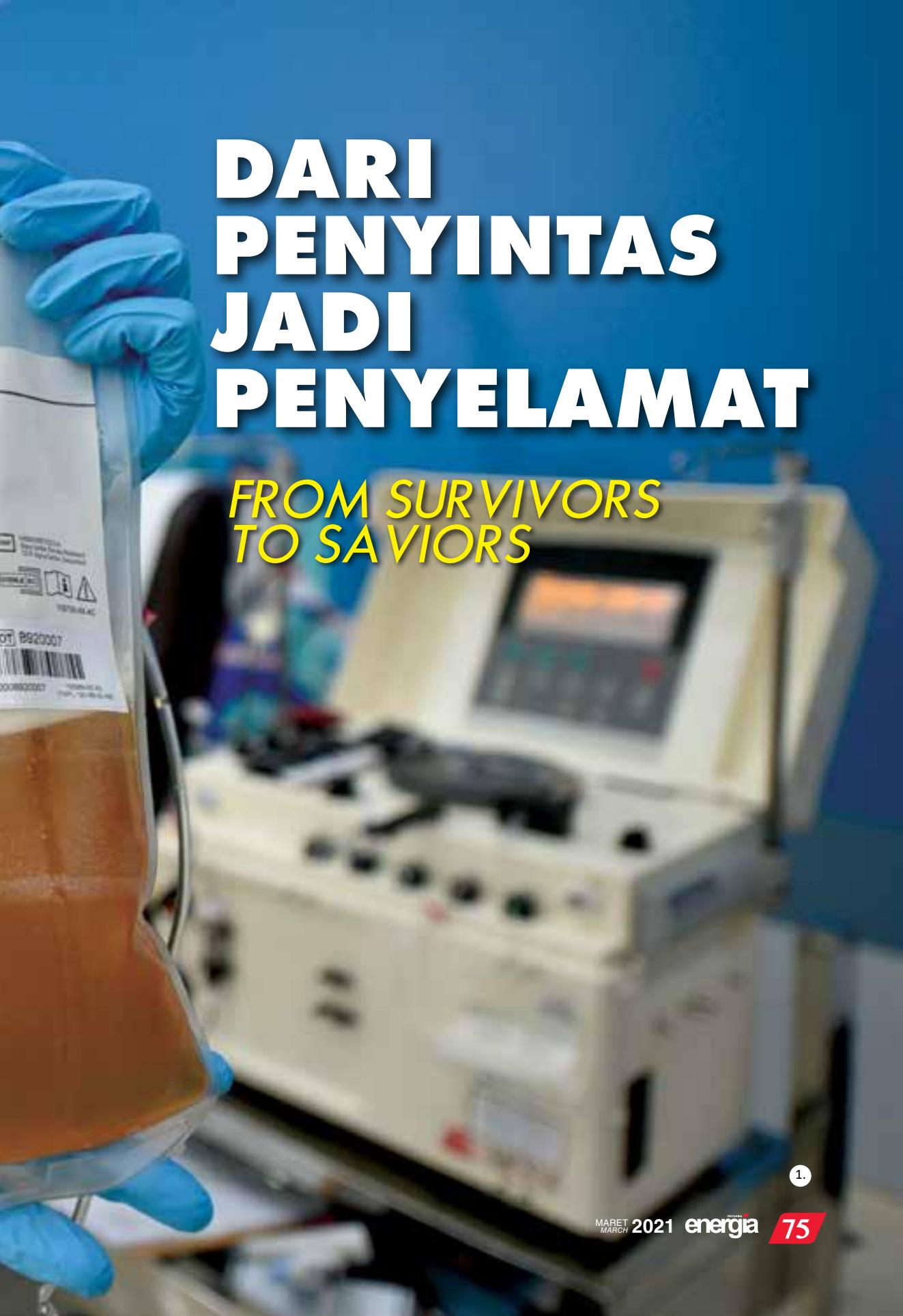


Adityo Pratomo & Rianti Octavia



Adityo Pratomo





DARI PENYINTAS JADI PENYELAMAT

FROM SURVIVORS
TO SAVIORS

1.



1. Plasma konvalesen dari penyintas yang ditranfusikan ke pasien COVID-19 menjadi salah satu cara untuk meningkatkan probabilitas kesembuhan mereka.

Convalescent plasma from survivors that is transfused into COVID-19 patients is one way to increase the probability of their recovery.

2. Salah satu perwira penyintas COVID-19 bersama petugas Palang Merah Indonesia (PMI) menunjukkan plasma konsalevennya dalam acara Donor Plasma Pertamina untuk Indonesia, di Kantor Pusat Pertamina, Jumat (29/1).

One of the perwira who survived COVID-19, together with an Indonesian Red Cross (PMI) officer, were showing his convalescent plasma at the 'Pertamina Plasma Donation for Indonesia' event, held at Pertamina's Head Office, on Friday (1/29).



Tidak ada satu orang pun yang menginginkan terserang virus Corona jenis baru penyebab COVID-19 yang melanda ratusan negara di dunia. Dengan beragam gejala yang dirasakan, pasien harus melalui ujian tersebut dengan tegar.

Di balik ujian tersebut, ternyata antibodi penyintas COVID-19 yang terbentuk karena berhasil melawan virus Corona dipercaya bisa meningkatkan probabilitas kesembuhan pasien lainnya. Inilah salah satu hikmah dari ujian pandemi. Dari plasma darahnya, para penyintas bisa menjadi penyelamat bagi pasien COVID-19 yang masih berjuang melawan virus itu.

Perwira Pertamina penyintas COVID-19 pun bergerak bersama untuk mendonorkan plasma konvalesennya. Solidaritas bagi sesama ini pun menjadi bukti bahwa perwira Pertamina akan selalu menjadi energi dalam setiap sendi kehidupan Indonesia.

Seperti yang diutarakan Direktur Utama Pertamina Nicke Widyawati, perwira sejati adalah seseorang yang bisa mengubah situasi sesulit apa pun menjadi positif. Perwira sejati selalu berupaya menjadi sahabat sejati bagi anak negeri yang sedang diuji. ■

No one wants to be infected with the new type of Coronavirus that causes COVID-19 and has hit hundreds of countries in the world. With a variety of symptoms that are felt, the patients must endure this challenge of life with resilience.

Behind the challenges, it turns out that the antibodies of COVID-19 survivors are believed to be able to increase the probability of recovery of other patients. This is one of the good things that come out of the pandemic. From their blood plasma, survivors can become saviors for COVID-19 patients who are still battling the virus.

Pertamina perwira who survived COVID-19 are also working together to donate their convalescent plasma. This act of solidarity is proof that Pertamina perwira will always be the 'energy' in every aspect of life in Indonesia.

As stated by Pertamina President Director Nicke Widyawati, a true perwira is someone who can turn any difficult situation into a positive one. A true perwira always tries to be true friends to other citizens who are undergoing the challenges of life. ■



3.

- Direktur Utama Pertamina, Nicke Widyawati memberikan apresiasi kepada para perwira penyintas COVID-19 yang mendonorkan plasma konvalesennya dalam acara Donor Plasma Pertamina untuk Indonesia, di Kantor Pusat Pertamina, Jumat (29/1).

Pertamina President Director, Nicke Widyawati, was giving her appreciation to the COVID-19 survivors who donated their convalescent plasma at the 'Pertamina Plasma Donation for Indonesia' event, held at Pertamina's Head Office, on Friday (1/29).

DONOR PLASMA PERTAMINA UNTUK INDONESIA

29 Januari 2021

#SurvivorbecomesSavior



- Untuk memperlancar proses donor plasma konvalesen, Pertamina memberikan dua unit mesin *apheresis* kepada PMI. Penyerahan bantuan secara simbolis diserahkan oleh Vice President CSR & SMEPP Management Arya Dwi Paramita kepada Ketua PMI Jakarta Pusat Rustam Effendy.

To expedite the convalescent plasma donation process, Pertamina provided Indonesian Red Cross with two units of apheresis machine. The aid was handed over symbolically by the Vice President of CSR & SMEPP Management, Arya Dwi Paramita, to the Chairman of Indonesian Red Cross Central Jakarta, Rustam Effendy.



- 5.** Tampak dokter dan salah satu pendoron berbincang di tengah proses donor plasma, di Kantor Pusat Pertamina, Senin (8/2).

A doctor and one of the donors were seen chatting in the middle of the plasma donation process, at Pertamina's Head Office, on Monday (2/8).

- 6.** Mesin apheresis digunakan untuk memisahkan antara darah merah dan darah plasma penyintas COVID-19 yang akan didonorkan kepada pasien yang masih berjuang melawan virus Corona.

The apheresis machine is used to separate the red blood and plasma blood of COVID-19 survivors, which will be donated to patients who are still fighting the Coronavirus.



6.

7. Ketua PMI Jusuf Kalla bersama Menteri BUMN Erick Thohir dan Direktur Utama Pertamina Nicke Widyawati menyerahkan sertifikat pendonor plasma kepada salah satu perwira Pertamina.

Indonesian Red Cross Chairman Jusuf Kalla, together with SOE Minister Erick Thohir and Pertamina President Director Nicke Widyawati, handed over a plasma donor certificate to one of Pertamina perwira.



7.



8.

8. Menteri BUMN Erick Thohir, Ketua PMI Jusuf Kalla dan Direktur Utama Pertamina Nicke Widyawati meninjau pelaksanaan donor plasma yang dilakukan insan BUMN, di Kantor Pusat Pertamina, Senin (8/2).

SOE Minister Erick Thohir, Indonesian Red Cross Chairman Jusuf Kalla and Pertamina President Director Nicke Widyawati visited the plasma donation event held by SOE personnels, at Pertamina's Head Office, on Monday (2/8).

MUSICOOL

Hematnya Energi, Hijaunya Bumi
Save Energy, Save Earth



HEMAT ENERGI
ENERGY SAVING



HEMAT BIAYA
LISTRIK
LOWER
ELECTRICITY BILL



RAMAH LINGKUNGAN
ENVIRONMENTALLY
FRIENDLY



PERTAMAX TURBO **PERFECTION IN PERFORMANCE**



ECO-FRIENDLY

Pertamax Turbo has reached the EURO 4 standard with lower sulfur content (Max 50ppm). This specification can reduce particles causing health risks such as heart disease, lung disease, impotence, and autism.



IGNITION BOOST FORMULA (IBF)

Pertamax Turbo with Ignition Boost Formula is more responsive to combustion needs, therefore maximizing engine performance.



RON 98

Pertamax Turbo is suitable for engine compression 12:1 and the latest technology vehicle



EXCELLENT PERFORMANCE

Pertamax Turbo increases the vehicle's maximum speed and produces perfect engine acceleration.