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2022 MedcoEnergi Sustainability Report

MEDCOENERGI



REACHING NEW HEIGHTS

PT Medco Energi Internasional Tbk

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2022 MedcoEnergi Sustainability Report



Rubber Cultivation Programme, Macang Sakti Village, Musi Banyuasin, South Sumatra, in Corridor, Indonesia.

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REACHING NEW HEIGHTS

MedcoEnergi reached new heights in 2022: a step change in production in all three business segments, the best financial performance ever, world-class safety performance, an increased footprint in and commitment to renewables, and recognition of our achievements in environment, social issues and governance. MedcoEnergi is the largest private oil & gas company in Indonesia, the largest solar operator and owner of the second-largest gas producing PSC in Indonesia. The Company has grown through both acquisitions and organically, merging corporate cultures and developing talent and innovation to become a complex, resilient and sustainable company. The Company's future is bright.

MEDCOENERGI

SUSTAINABLE DEVELOPMENT GOALS

We support the Sustainable Development Goals

TCFD TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

ibcsd

MedcoEnergi is a co-founder of the Indonesia Business Council for Sustainable Development, the Indonesian chapter of the World Business Council for Sustainability Development (WBCSD)

CDP DISCLOSURE INSIGHT ACTION

MSCI ESG RATINGS A

CCC | B | BB | BBB | A | AA | AAA

As of 2022, PT Medco Energi Internasional Tbk received an MSCI ESG Rating of A.

Rated MORNINGSTAR | SUSTAINALYTICS

PT Medco Energi International Tbk's ESG Risk Rating places it the 25th percentile in the Oil & Gas Producers industry and 28th percentile in the Oil & Gas Exploration and Production subindustry assessed by Sustainalytics

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About This Report

MedcoEnergi publishes an annual Sustainability Report to communicate the Company's policies and approach to sustainable development and to disclose its economic, social, environmental and governance performance.

This report covers MedcoEnergi's activities and performance per material topic between the period of 1 January and 31 December 2022 and provides progress updates on the action plans established to achieve our short, medium and long term sustainability objectives. A summary of the achievements and challenges for 2022 can be found on page 18. There are no significant changes in our materiality assessment since the previous report issued in 2022.

This report was prepared in accordance with the 2021 Global Reporting Initiative (GRI) Standards and its subsequent updates and demonstrates the linkage between MedcoEnergi's sustainability performance and the United Nations' Sustainable Development Goals. Unless otherwise stated we use definitions as set out in the GRI Standards. The GRI Performance Data and GRI Index are accessible through this link: www.medcoenergi.com/en/subpagelist/view/36 or through MedcoEnergi's website: www.medcoenergi.com.

Please contact investor.relations@medcoenergi.com for queries related to the report.

Restatement of GRI 305 Emissions Indicators for the Years 2019, 2020, and 2021

In March 2022, we have acquired Corridor, a Sumatra-based PSC with 7 producing gas fields, and 2 producing oil fields. We have also improved our GHG emissions calculation methodology in several emissions sources, specifically in Block A, South Natuna Sea Block B, Lematang, and Bangkanai. We also established the 2019 GHG emissions data as the base year emissions. In order to have more thorough and comparative year on year emissions figures, we have recalculated and restated the Oil & Gas GRI 305 Emissions disclosures for the years 2019, 2020, and 2021 in this report. For more detailed information, please refer to page 93.

Reporting Assurance

The number of data indicators disclosed and assured by KAP Purwantono, Sungkoro & Surja (A member firm of Ernst & Young Global Limited, or 'KAP PSS - EY') has increased from 86 in 2021 to 93 in this 2022 report. The Company will continue to enhance disclosure and increase the number of assured indicators once reliable and consistent data collection can be maintained across reporting units.

KAP PSS - EY Limited Assurance Statement

Scope and Limited Assurance of Sustainability Report

MedcoEnergi engaged KAP PSS - EY to undertake limited assurance over selected disclosures in the sustainability report. The Subject Matter for KAP PSS - EY's limited assurance engagement for the year 2020, 2021 and 2022 was limited to:

- A selection of 93 non-financial performance indicators ('Selected Performance Information') contained in the sustainability report (www.medcoenergi.com/en/subpagelist/view/36).
- The consolidated performance metrics relating to the Selected Performance Information, presented in the sustainability report.

KAP PSS - EY's Conclusion Statement

MedcoEnergi engaged KAP PSS - EY to undertake a limited assurance as defined by Standards on Assurance Engagement (SAE) 3000 (Assurance Engagements Other than Audits or Reviews of Historical Financial Information) established by the Indonesian Institute of Certified Public Accountants (IICPA) over selected sustainability disclosures in the sustainability report as disclosed in the Appendix 1 of KAP PSS - EY's independent limited assurance statement. Based on the limited assurance procedures performed and evidence obtained, nothing has come to KAP PSS - EY's attention that causes KAP PSS - EY to believe that the Subject Matter set out in MedcoEnergi's Sustainability Report for the year 2022, has not been reported and presented fairly, in all material respects, in accordance with the Criteria.

KAP PSS - EY's independent limited assurance statement to the Management of MedcoEnergi is available in the company's website (www.medcoenergi.com/en/subpagelist/view/36).

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Grissik Facilites, Corridor, South Sumatra, Indonesia.

Chapter #1

Messages from Management

6 Messages from the Chairwoman
8 Letter from the Board

Messages from the Chairwoman



The provision of energy forms the foundation of development. Its access is instrumental in maintaining and securing socio-economic progress. Energy demand will continue to increase in Southeast Asia, in line with the region's economic growth and development agenda. In the countries in which we operate, Indonesia has the most ambitious emissions reduction agenda[1]. This is embodied in its Nationally Determined Contribution (NDC) while being one of the largest global economies in Asia. In a low-carbon future, utilising renewable energy is the favoured path forward. However, given the current infrastructure and primary energy mix, renewables alone cannot meet the target of energy demand for sustainable development in the region. It is anticipated that fossil-based energy sources will remain pivotal in ensuring that this demand is met, particularly in Indonesia, where the majority of our operations are based. MedcoEnergi is committed to contributing to the achievement of the Government of Indonesia's (GOI) development ambitions, Vision of Indonesia (*Visi Indonesia Emas*) 2045[2].

Our commitment to reducing our carbon footprint and advancing towards decarbonisation is in line with key takeaways from the 2022 United Nations Climate Change Conference of the Parties (COP27) and the GOI's updated NDCs with stricter emissions reduction targets[3], considering the social impacts to secure a Just Transition.

Our climate aspirations align with the GOI's NDC to transform the primary energy mix, and to have gas as the transition fuel to low carbon energy. We are intensifying our efforts to meet the growing demand for energy, simultaneously reducing our carbon emissions and securing potential opportunities for energy transition.

Following the issuance of our climate change and energy transition strategy, in 2022 we established our interim targets for 2025 and 2030 as part of our net zero emissions aspiration. We have worked on mapping detailed initiatives and determined action plans to keep us on track to achieve our commitments.

As part of our strategy, we expanded our natural gas portfolio by acquiring Corridor PSC and completing its integration into our business at the end of 2022. With this acquisition, we were listed in the IDX LQ45 Low Carbon Leaders[4] as one of 24 companies with low carbon emissions intensity in the Indonesia Stock Exchange.

It is imperative that our strategy addresses stakeholders' expectations in the ever-evolving Environmental, Social, and Governance (ESG) and climate landscapes. We have thus updated our materiality assessment and conducted a corporate-level human rights assessment. The outcome of these assessments has provided the basis to establish our new set of goals, key performance indicators (KPIs) and a renewed Sustainability Roadmap for 2023-2027.

We intend to remain relevant in the energy sector by continuing the pursuit of our goals in achieving our KPIs, implementing our decarbonisation roadmap and continuously improving our ESG performance and ratings. We will continue to improve our business to provide sustainable energy and actively participate with and support the Government of Indonesia's national development agenda.

At MedcoEnergi, we recognise our leaders' contributions as the driving force behind our business. We grieve the passing of three of MedcoEnergi's prominent family members: Arifin Panigoro, the Founder of Medco Group, Bambang Subianto, one of MedcoEnergi's Independent Commissioners and Professor Subroto, a member of our Advisory Council and former Indonesian Minister of Energy and Mineral Resources. MedcoEnergi will continue to carry the baton of their spirit for sustainable growth and the attainment of new heights as a leading energy and natural resources company in the region.



Yani Y. Panigoro
President Commissioner

[1] World Energy Outlook 2022, International Energy Agency, Stated Policies Scenario (STEPS), energy demand in Southeast Asia is projected to rise over 3% annually until 2030.
[2] Handbook of Energy & Economic Statistics of Indonesia 2021, Ministry of Energy and Mineral Resources.
[3] For example, Indonesia's Enhanced NDC increased the 2030 emissions reduction target from 29% to 31.89% unconditionally and from 41% to 43.2% conditionally.
[4] IDX LQ45 (high liquidity, free float, share price, and good financial fundamental) Low Carbon Leaders is an index in Indonesia Stock Exchange that aims to show companies that have a low carbon emission intensity in LQ45.

Letter from the Board



MedcoEnergi supports Indonesia's development agenda in providing sustainable energy and taking full advantage of opportunities on the pathway towards energy transition and net zero emissions. We conduct our oil & gas exploration and production activities by adopting the latest technologies and best practices, as well as broadening our natural gas portfolio as transition fuel. Our strategy includes expanding our renewable energy portfolio and exploring natural & technological carbon segregation. At MedcoEnergi, we pursue business progression reflecting our mission to build long-term value with a portfolio of sustainable energy and natural resources.

Performance Enhancement

We are committed to elevating our performance to new heights. The performance of our sustainability programmes and initiatives has been acknowledged by ESG rating agencies and CDP[1]. Our ratings have improved consistently since 2019. In 2022, MedcoEnergi's rating from MSCI[2] achieved A level, improving from BBB, and our Sustainalytics[3] risk score improved from 42.2 to 36.7, demonstrating strong ESG Risk Management. Our CDP Climate Change score of B places our performance higher than average performances in the oil & gas extraction & production sector, as well as the Asia and Global average of all sectors. As further testament to our achievements, we were honoured to receive 30 sustainability-related national and international awards in 2022.

[1] Formerly the Carbon Disclosure Project, CDP is an international non-profit organisation that helps companies and cities disclose their environmental impact (www.cdp.net).
[2] MSCI ESG Ratings measure a company's management of long-term, financially relevant ESG risks and opportunities. Companies are rated on a scale of AAA to CCC (www.msci.com).
[3] Sustainalytics measures a company's exposure to industry-specific ESG risks and their approach to managing those risks (www.sustainalytics.com).

We successfully attained the majority of our goals and KPIs from the 2018 materiality assessment. In 2022, we conducted a double materiality assessment to best address growing stakeholder concerns in the ESG landscape. Climate change and energy transition have been identified as significant priority issues for MedcoEnergi, while Local Communities, Policy and Regulatory Environment, and Anti-corruption and Business Ethics remain as material topics. From the outcome of the assessment, we attained our goals and KPIs, and established a roadmap for 2023 to 2027.

Securing Climate Resilience

To address the issues of climate change and energy transition, we have converted our Climate Change Strategy into action and issued our climate interim targets. A principal target is to reduce Scope 1 and Scope 2 greenhouse gas (GHG) emissions by 20% and 30%, and to reduce methane emissions by 25% and 37% for our oil & gas business in 2025 and 2030 from 2019 base year, respectively. In addition, we intend to increase our renewable energy installed capacity for our power business to 26% in 2025 and 30% in 2030.

At MedcoEnergi, we have implemented numerous GHG reduction opportunities and emissions management initiatives, including flare gas reduction and utilisation, operating strategy optimisation, and the retirement of several internal gas and diesel power generators. Furthermore, we have made progress with our Ijen geothermal exploration, Bali and Sumbawa solar PV projects, and Pulau Bulan pilot solar power facilities development and we plan to progressively expand the use of PV in operations. In addition, some of our onshore and offshore facilities have been equipped with solar PV. We are also exploring opportunities in Carbon Capture and Storage (CCS) and Carbon Capture, Utilization, and Storage (CCUS) technology as part of our roadmap to net zero. As the next step in our climate journey, we shall conduct a Climate Change Quantitative Risk Assessment, aligned with the Task Force for Climate-related Financial Disclosure (TCFD) recommendations. This quantitative assessment will allow us to extend the level of detail in our understanding of climate change impacts on our business.

Stakeholder Engagement

Our aspiration is to establish constructive and productive relationships with our stakeholders. Through various forms of engagement, we aim to nurture a culture of trust and transparency. We have contributed to several strategic events and shared our Climate Change Strategy, emphasizing the role of the energy sector in addressing climate change. These events included the 46th Indonesian Petroleum Association (IPA) Conference and Exhibition, COP27 in Sharm El Sheikh, Egypt and the Net Zero Summit in Bali, Indonesia. We were one of the main sponsors of KADIN's[1] Net Zero Summit and actively contributed to a number of IPA Committees, including the Energy Transition Committee, Environmental & Safety Committee and Ethics & Compliance Committee.

Empowerment of Our People

We have been building our organisation's capacity to implement our climate change strategy. Our objective is to strengthen the climate awareness of our people and enhance their competency. This programme aims to support our aspiration of building a climate-resilient business. We have continued to conduct leadership capacity-building and support women's empowerment in our business. In the beginning of 2023, we launched the "Medco Leadership Behaviours" (MLB) campaign to strengthen the leadership behaviours of our employees at all levels.

We recognize that our growing business and asset expansion increase our exposure to various global risks, with some of the key risks identified being related to human rights. In 2022, we conducted a corporate-level human rights assessment to further understand

[1] Indonesian Chamber of Commerce and Industry.

these risks and develop appropriate mitigations. With reference to the International Bill of Human Rights, BSR as our consultant, identified Labor Conditions, Socio-Economic Impacts, Operational Impacts, Grievance Mechanisms, Supply Chain and Business Ethics as the salient human rights issues relevant to MedcoEnergi. While we have already incorporated human rights aspects in our Code of Conduct, we shall utilise the outcome of this assessment to develop a Human Rights Policy. Realising that business ethics remains a material topic in both materiality assessment and human rights assessment, we have extended our Anti-Bribery Management System (ABMS) ISO 37001 certification to cover our international asset, Thailand Bualuang operations.

Numerous notable milestones have been achieved throughout MedcoEnergi's journey this year. The integration of Corridor is now complete, and organizational changes to blend expertise across assets have been, and will continue to be, implemented. We have also established our Climate Change and Energy Transition interim targets for 2025 and 2030, with our safety records improvement trend representing an additional highlight.

The year 2022 has been an extremely successful one for us. Significant achievements and new heights in the history of MedcoEnergi have been attained. We intend to remain relevant in this business – responsibly producing sustainable energy and creating long term value for our stakeholders.



Hilmi Panigoro
President Director



Roberto Lorato
Director & Chief Executive Officer



Mandatory field staff safety briefing before daily activities.

Chapter #2

Our Year in Summary

12 Improving Our Economic Performance

13 Enhancing Our Environmental Safeguards

14 Supporting Our Communities

Improving Our Economic Performance

As a leading Southeast Asian energy natural resources company, we strive to build long-term value for our stakeholders by conducting our business with the utmost integrity and transparency.

	2020	2021	2022
Production	**100 MBOEPD** Oil & Gas **2,639 GWh** Total IPP Sold	**94 MBOEPD** Oil & Gas **2,718 GWh** Total IPP Sold	**163 MBOEPD** Oil & Gas **3,993 GWh** Total IPP Sold
Revenue[1] (USD)	**1,099,902,921**	**1,252,106,573**	**2,312,227,602**
Net Profit/(Loss)[1] (USD)	**(192,825,309)**	**47,019,404**	**530,882,676**
Third Party Supplier Breakdown[2] (USD)	**96,870,938 (66%)** Indonesia **50,420,159 (34%)** International	**109,361,475 (66%)** Indonesia **55,308,644 (34%)** International	**157,045,120 (83%)** Indonesia **33,105,393 (17%)** International
New and Renewable Energy Products	**Sumbawa, Bali and Bulan Island Solar PV Project** One 26 MWp, two 25 MWp and one 670 MWp solar PV facilities respectively **Cibalapulang and Pusaka Parahiangan Mini Hydropower** Two 9 MW mini-hydropower plants in West Java **Sarulla Geothermal Project** One 330 MW geothermal power plant located in North Sumatra **Sekongkang Wind Energy Project** One 50-100 MW wind power plant in West Sumbawa		

		2020	2021	2022
Oil & Gas Production (MBOEPD)	Target	100–105	94–95	160
	Realisation	100	94	163
Oil & Gas Capital Expenditure (million USD)	Target	180	150	250
	Realisation	144	83	269
Power Sales (in GWh)	Target	2,600	2,700	4,000
	Realisation	2,639	2,718	3,993
Power Capital Expenditure (million USD)	Target	60	65	80
	Realisation	63	31	33

[1] Based on Indonesia Statement of Financial Accounting Standards.
[2] Based on third-parties Trade Payable data.

Enhancing Our Environmental Safeguards

Our approach involves managing our greenhouse gas (GHG) emissions, energy usage and resource consumption to minimise environmental impact, safeguard ecosystems and protect the surrounding biodiversity. Further details regarding our efforts can be read in Chapter 6 and 7.

	2020	2021	2022
Emissions (Scope 1 and Scope 2) (million tCO_2e)	**4.8** Oil & Gas	**4.6** (↓3%) Oil & Gas	**4.4** (↓5%) Oil & Gas
	0.8 Power	**0.9** (↑10%) Power	**1.4** (↑59%) Power
Energy Consumption (million GJ)	**34.8** Oil & Gas	**36.6** (↑5%) Oil & Gas	**37.0** (↑1%) Oil & Gas
	8.6 Power	**9.5** (↑11%) Power	**14.4** (↑51%) Power
Water Withdrawal (thousand m^3)	**7,800** Oil & Gas	**7,075** (↓9%) Oil & Gas	**7,025** (↓1%) Oil & Gas
	221 Power	**16** (↓93%) Power	**87** (↑443%) Power
Non-hazardous Waste Generation (tonnes)	**1,153** Oil & Gas	**897** (↓22%) Oil & Gas	**1,958** (↑118%) Oil & Gas
	105 Power	**121** (↑15%) Power	**63** (↓48%) Power
Hazardous Waste Generation (tonnes)	**2,532** Oil & Gas	**1,914** (↓24%) Oil & Gas	**4,200** (↑119%) Oil & Gas
	40 Power	**56** (↑38%) Power	**45** (↓18%) Power
Biodiversity and Conservation Initiatives	**469 hectares** Total Planted Area Leasehold of Forest Area (IPPKH)	**68 hectares** Total Planted Area Leasehold of Forest Area (IPPKH)	**228 hectares** Total Planted Area Forest Area Usage Approval (PPKH, formerly IPPKH)
	13 hectares Total Planted Area Beyond regulatory requirements	**12 hectares** Total Planted Area Beyond regulatory requirements	**28 hectares** Total Planted Area Beyond regulatory requirements

Following the Corridor acquisition, we incorporated data from the new asset into energy, water, waste, emission, and revegetation for 2020 and 2021. In addition, we re-calculated our water withdrawal figures for 2020-2021 for Madura Offshore asset to include cooling water consumption and for 2021 Mitra Energi Batam (MEB) to incorporate all fresh water withdrawal sources in MEB. This revised calculation resulted in an increase in oil & gas and power environmental indicators.

Supporting Our Communities

We work with local communities and other stakeholders to develop and implement community development programmes aimed at fostering self-reliance and resilience. Further details regarding our programmes can be read in Chapter 8.

The following table summarises MedcoEnergi's support over the past three years:

	2020	2021	2022
Total Funding for Community Development Programme (USD)	1,757,433	1,981,992 (↑13%)	2,304,408 (↑16%)

MedcoEnergi has implemented programmes and initiatives to address various local needs, including:



Women's Business Development in Musi Rawas and Sumenep Regency

- Organised a **business development** programme for Women Farmer Groups in Giriyoso Village, Musi Rawas Regency
- Continued to support a women's group in Aenganyar Village, Sumenep Regency, to further develop their **palm sugar business** since its establishment in 2018



Food Security Programme in the Anambas Islands Regency

- Enhanced food resilience in the Anambas Islands Regency by promoting **independent vegetable cultivation** and **fostering intra-community vegetable trade** across five villages, in collaboration with Bina Tani Sejahtera Foundation
- Repurposed 270 kg of organic waste into **fertiliser and planting media** and **recycled plastic containers** for growing plants



Green Open Space in Sampang Regency

- Revitalised the **Trunojoyo Monument Park** to improve access to green spaces and increase the local economy activity
- Planted **555 Sonokembang trees** (*Pterocarpus indiscus*)



Children and Women Empowerment House in Aceh Jaya Regency

- Established a **Children and Women Empowerment House** to provide educational programmes, health services, and economic empowerment initiatives
- **Organised awareness sessions on stunting prevention** with expert speakers



Energi Listrik Batam (ELB) Gas Power Plant, Batam, Indonesia

Chapter #3

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MedcoEnergi in Brief

MedcoEnergi is a leading Southeast Asian energy and natural resources company listed on the Indonesia Stock Exchange (MEDC-IDX) and focused on three key business segments, Oil & Gas, Clean Power and Copper Mining. MedcoEnergi produces oil & gas primarily in Indonesia with an increasing international presence. The Group operates gas, solar PV, geothermal and hydro power plants in Indonesia through Medco Power and owns a non-consolidated interest in a large Indonesian copper and gold mine, Amman Mineral Nusa Tenggara (AMNT). Considering the non-controlling nature of our interest, we do not include AMNT Environmental, Social and Governance (ESG) activities in this Sustainability Report.



MedcoEnergi has interests in 14 oil & gas properties in Indonesia, 12 of which are producing. The Company also has interests in 11 international oil & gas properties. MedcoEnergi retains key producing assets in Oman, Vietnam, Thailand and Yemen and additional development assets in Libya and Tanzania. In 2022, oil & gas production was 163 MBOEPD, with a composition of 79% gas and 21% liquids. Unit costs were USD 6.9 per BOE, within the Company's long term sub USD 10 per BOE commitment.

In March 2022 MedcoEnergi acquired ConocoPhillips' Indonesian assets, comprising a 54% working interest in Corridor PSC and a 35% interest in the Transasia Pipeline Company Pvt. Ltd. Corridor contributed 70.2 MBOEPD in 2022 and its direct operating efficiency was 99.6%. The assets have been smoothly integrated into MedcoEnergi and bring with them many opportunities for growth.

MedcoEnergi, through its wholly owned subsidiary Medco Power Indonesia, promotes clean energy via its operated gas, solar PV, geothermal and hydro power plants in Indonesia. The Company is now the largest producer of solar PV in Indonesia. Medco Power 275 MW combined-cycle plant in Riau reached commercial operation in February 2022. Medco Power owns and operates 11 small to medium-sized IPPs and provides operational and maintenance services to its own and third-party power plants. Power sales were 3,993 GWh in 2022, 21% from renewable sources and 79% from gas-fired facilities.

AMNT continued to produce high-grade ore from Batu Hijau Phase 7 in 2022. Work is progressing on the development of Phase 8 and a copper concentrate smelter with a capacity of 900,000 mtpa. The smelter will process ore from Batu Hijau and Elang, the latter being one of the world's largest undeveloped copper–gold porphyry deposits. AMNT began exploration at Elang in 2017 after the 2016 acquisition by Medco.



Demand for copper is strong and increasing as the metal is a necessary component of electrification.

MedcoEnergi committed, in its Climate Change Strategy, to reach net zero greenhouse gas (GHG) emissions for Scope 1 and 2 by 2050 and Scope 3 by 2060. In 2022 the Company set interim targets for 2025 and 2030 for Scope 1 and 2 reductions, as well as for cuts in methane emissions and increases in renewable capacity.

Over the past four years, MedcoEnergi has worked hard to strengthen its ESG performance and in 2022 was included in the IDX LQ45 Low Carbon Leaders[1], a new index published by the Indonesia Stock Exchange. The Company's ESG ratings from MSCI and Sustainalytics have also steadily improved. In 2022 the MSCI rating rose again to A from BBB in 2021, BB in 2020 and B in 2019. The Company's Sustainalytics score improved to 36.7 in 2022 from 42.2 in 2021, 46.9 in 2020 and 49.9 in 2019. Its CDP score improved from C to B. With a strong ESG record and commitment to net zero, the Company is well placed to benefit from South East Asia rapid economic growth and expanding demand for clean energy.

In 2022 MedcoEnergi paid a final 2021 of USD 35 million and an interim 2022 dividend of USD 25 million. The Company will finalize the 2022 dividend at the AGMS in 2023.

[1] IDX LQ45 (high liquidity, free float, share price, and good financial fundamental) Low Carbon Leaders is an index in Indonesia Stock Exchange that aims to show companies that have a low carbon emission intensity in LQ45.

2022 Sustainability Performance at a Glance

Highlights

Governance

- Completed an updated **Materiality Assessment** and a **Human Rights Assessment (HRA)** at the corporate level and established our **2023-2027 Sustainability Roadmap**.
- Extended our **ISO 37001:2016 Anti-Bribery Management System (ABMS) certification** to our international asset, Thailand.
- **Integrated** our recently acquired Corridor asset into **MedcoEnergi's governance and management systems**.
- Extended **Third Party Compliance programmes** such as our Vendor Audit, Compliance Session and Compliance Survey to our international asset, Thailand.
- MedcoEnergi's rating from **MSCI** upgraded to **A** from BBB, and our **Sustainalytics** risk score improved from 42.2 to **36.7**, demonstrating **strong ESG Risk Management**.

Environmental Management

- **Full activation** of a **Climate Change Governance** structure with clear roles and responsibilities, appointed leaders and teams, action plans for short-, medium-, and long-term, and regular monitoring of actions including regular updates to the BOD.
- Issued our **climate interim targets for 2025 and 2030** to reduce Scope 1 and Scope 2 greenhouse gas (GHG) and methane emissions and increase our renewable energy installed capacity.
- Achieved a **B score** for 2022 **CDP Climate Change**, higher than the average performance of both the oil & gas extraction and production sector and the Asia and Global average of all sectors.
- Listed in **the IDX LQ45 Low Carbon Leaders**[1] among 24 companies with low carbon emissions intensity in the Indonesia Stock Exchange.

Social Management and Community Empowerment

- Strengthened our **Social Management System (SMS)** by conducting SMS Team capability building, monitoring system implementation, measuring SMS maturity level and setting annual improvement plan.
- Continued to **empower local communities and media journalists** through our capacity-building, local economic development, women's empowerment, educational support programs and youth development programs.

Health and Safety

- Improved our **Corporate Total Recordable Incident Rate** (TRIR) from 0.29 in 2021 to 0.21 in 2022, lower than the average 2021 TRIR of the International Association of Oil & Gas Producers (IOGP) Asia/Australasia (0.69).
- Achieved **zero fatalities** in 2022, for the second year in succession.

Lowlights

Community Health and Safety

In response to an incident at Block A in 2021, we continue to manage the operational impact on the surrounding communities.

To improve our response in 2022, we upgraded our grievance mechanism system allowing more easy communication between the local communities and Block A using Hotline Number and ReportMe application. By collaborating with local government agencies, independent parties, and health organisations, our responses have been more timely and effective.

We are also strengthening our engagement efforts with local government and local communities, including the community leaders, to raise the awareness about odours through socialization on upstream industry and Block A operations, as well as to receive valuable feedbacks.

We have conducted regular measurements of air quality levels, with results consistently within the normal range.

[1] IDX LQ45 (high liquidity, free float, share price, and good financial fundamental) Low Carbon Leaders is an index in Indonesia Stock Exchange that aims to show companies that have a low carbon emission intensity in LQ45.

Vision, Mission, and Corporate Values

VISION

To be the Energy Company of Choice for investors, shareholders, partners, employees, and communities where we operate.

MISSION

To build long-term value with a portfolio of sustainable energy and natural resource businesses.

CORPORATE VALUES



Professional

All employees must conduct themselves in a professional manner by:

- Being competent in their area of expertise.
- Having a "champion spirit".
- Always seeking self-improvement.
- Having professional capabilities and knowing their own limits.



Ethical

All employees must conduct themselves in an ethical manner by:

- Conducting business fairly with high moral integrity.
- Applying the highest ethical standards at all times.
- Understanding and following the Company's ethics and Good Corporate Governance policies.



Open

All employees must make efforts to promote transparency by:

- Encouraging informality and openness in communication at all levels.
- Building an environment of trust among employees and management.
- Being open-minded in thought, behavior, and work.



Innovative

All employees must cultivate a spirit of innovation by:

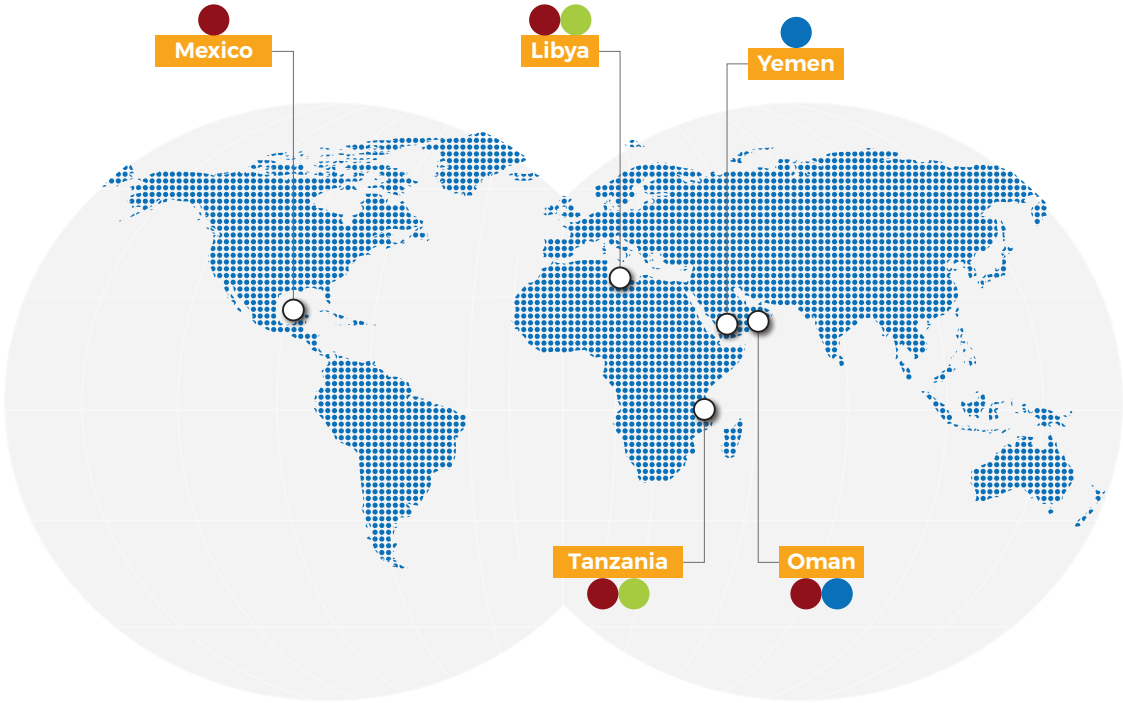
- Building a culture of trailblazers.
- Continuously searching for innovative solutions to achieve better, safer and cost-effective outcomes.
- Having intellectual and emotional maturity.

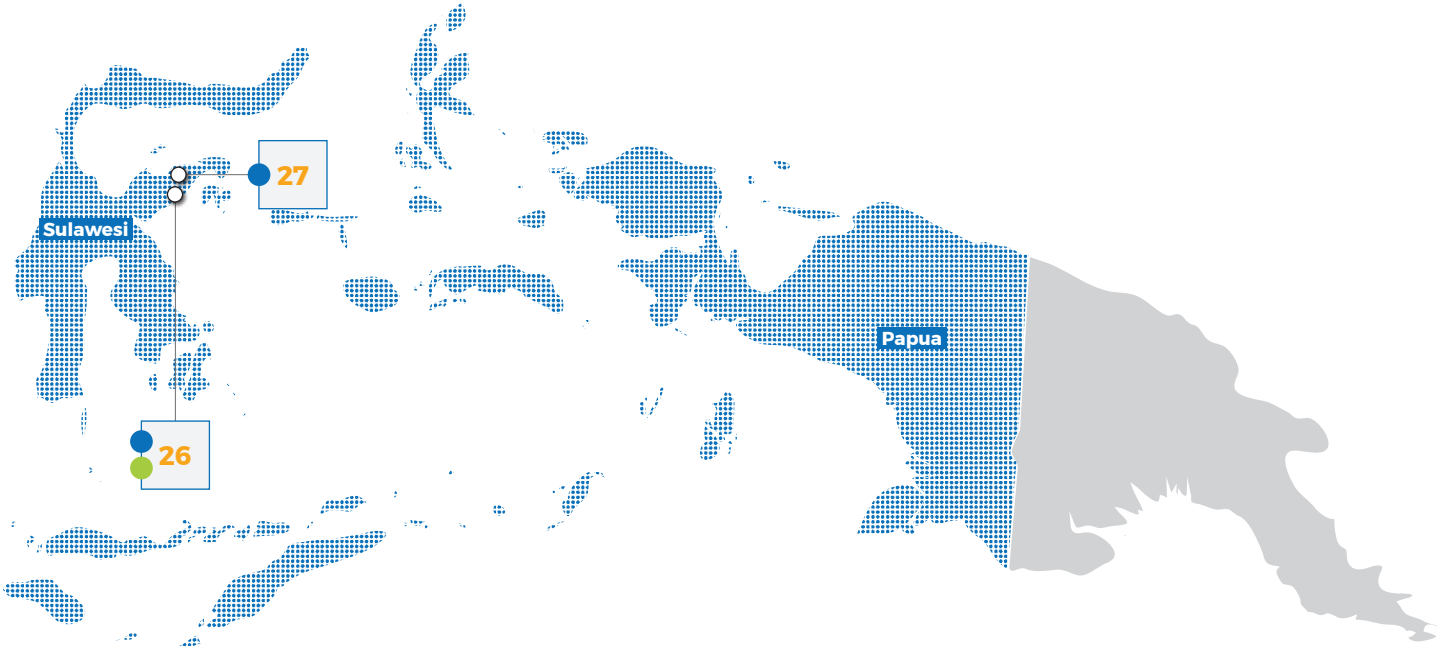


1	Block A Aceh
2	Sarulla Geothermal
3	Riau CCPP
4	Corridor
5	South Sumatra Region
6	South Sumatra IPP
7	Cibalapulang Mini Hydro
8	The Energy Building (HQ)
9	Sampang
10	Ijen Geothermal
11	Madura Offshore
12	Bali Solar PV
13	Sumbawa Solar PV

14	Batu Hijau & Elang
15	Onshore Receiving Facility, Singapore
16	Batam IPP
17	South Natuna Sea Block B
18	North Sokang
19	Block 12W, Vietnam
20	Sinphuhorm, Thailand
21	Bualuang, Thailand
22	Bangkanai
23	West Bangkanai

24	Tarakan
25	Simenggaris
26	Senoro-Toili
27	Donggi Senoro LNG





Oil & Gas

- Production
- Development
- Exploration

Power

- Installed
- Development

Cooper Mining

- Production
- Development
- Exploration

Business at a Glance

Oil & Gas

12 Onshore Production Assets

5 Offshore Production Assets

8 Exploration Assets

9 Presence in Countries

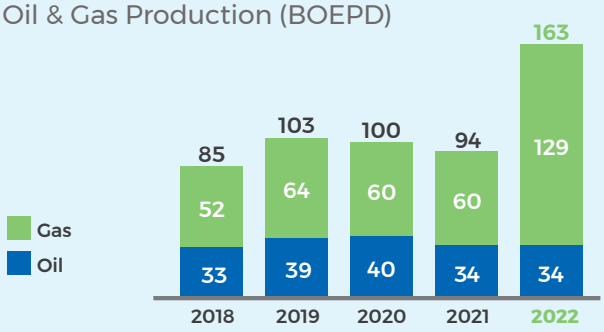
80% Onshore Production

79% Oil Production

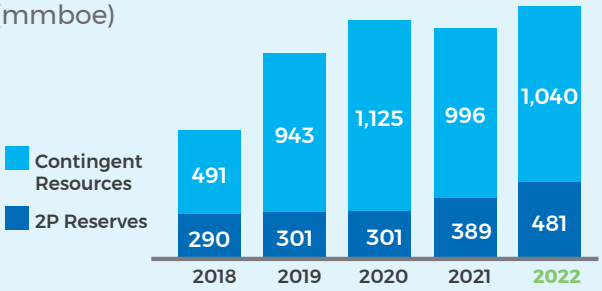
20% Offshore Production

21% Gas Production

Oil & Gas Production (BOEPD)

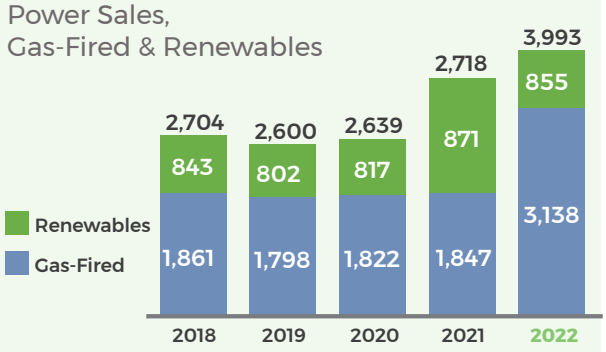


2P Reserves and Contingent Resources (mmboe)



Power

Power Sales, Gas-Fired & Renewables



939 MW IPP Power Capacity

7 Operated Gas-fired IPPs

1 Operated Geothermal IPP

1,925 MW O&M Power Capacity

2 Operated Mini Hydro IPPs

1 Solar PV

ESG

Zero Fatality

USD 2.3 million CSR Spending Oil & Gas and Power an increase of 16.3% compared to 2021

Climate Change Interim Targets

Oil & Gas Scope 1 & 2 GHG Emissions Reduction[1]

↓ 20% (2025) ↓ 30% (2030)

Oil & Gas Methane Emissions Reduction[1]

↓ 25% (2025) ↓ 37% (2030)

Renewable Mix Installed Capacity



[1] Reduction from 2019 base year.

Supply Chain Management

Supply chain business partners are of strategic importance for MedcoEnergi. Our contractors and suppliers provide goods and services to sustain our operations and are procured in a transparent and accountable manner. We also make every effort to build strong business relationships, empowering our contractors and suppliers to comply with regulations and implement best environmental, social and governance practices.



MedcoEnergi's Director & Chief Administrative Officer, accompanied by representatives from our SCM function, received the SCM KPI awards from SKK Migas.

We require all our business partners to comply with our Code of Conduct, which provides detailed expectations in the Code of Supplier section, and mandates compliance with all applicable laws and regulations. For example, in conforming with local labour laws, we do not employ child labour and forced labour in our operations. Our Code of Conduct is integrated within our contracts, which reinforces the need to uphold our values.

At MedcoEnergi, we assess opportunities to improve our supply chain's resilience in mitigating risk and securing better supply and market access. This ensures that our Supply Chain Management (SCM) systems align with industry best practices.

We continue to participate in SKK Migas' SCM Key Performance Indicator (KPI) assessments for Production Sharing Contract (PSC) operations, whereby all our domestic Oil & Gas assets were ranked in the Top Two[1]. These assessments evaluate our assets, customs, national capacity and provision of goods and services. In 2022, Block A achieved the best KPI and KKKS awards, highlighting our commendable participation in the assessments and our use of domestic products respectively.

In 2022, we introduced several initiatives to elevate our SCM function to new heights. We developed a plan to enhance our e-procurement in Oman and initiated the development of Vendor Self-Registration for our international and Medco Power assets. In taking a proactive approach to supplier engagement, our SCM function participated in various knowledge-sharing sessions as the lead Subject Matter Expert (SME).

As part of the MedcoEnergi Business Support Function, we implemented the ONE Medco Program, aimed at standardising processes, tools and procedures for business process effectiveness. For example, we enacted the Single Medco Number, which involves using a single material catalogue for all our Medco Oil & Gas assets. Our SCM function is evaluating opportunities to expand this to our international and Medco Power assets.

We also established the Service Quality Review (SQR) initiative, aimed at improving our contracting process by standardizing our business partners' performance appraisals. Through SQR, three elements are evaluated: health, safety, and environmental (HSE) compliance, contract implementation and management attitude. The evaluation seeks to ensure that all identified contracts with high and medium risks are subjected to a standard assessment.

MedcoEnergi made significant contributions to SKK Migas' National Capacity (*Kapasitas Nasional*/KapNas) Forum, which aims to strengthen the capacity of micro, small and medium enterprises (MSMEs). The Forum was established to support the upstream oil & gas industry. We facilitated business matchmaking between domestic and foreign companies, yielding a positive impact on the domestic oil & gas industry.

In addition, we host a Vendor Day on an annual basis to communicate the Company's policies, systems, and expectations to our business partners. We conducted a virtual Vendor Day for Medco Oil & Gas, with over 700 participants. During the event, we shared the Medco Outlook 2023, as well as insights and significant updates on related topics, such as our Anti-Bribery Management System (ABMS) and the new regulation for manpower services. We also highlighted key initiatives under our Sustainability and Climate Change Strategy, including the initiative for Scope 3 greenhouse gas emissions, to raise awareness of our climate aspirations with our business partners.

MedcoEnergi's initiatives extend beyond our operations. In supporting the well-being of local communities, our SCM function collaborated with SKK Migas to provide tents, blankets, and raincoats for evacuees during the recent earthquake in Cianjur, West Java.

[1] Our offshore assets received a rank 1, Grissik assets received a rank 2 for Group 1 Work Programme & Budget (WP&B) and our Onshore assets received a rank 2 for Group 2 WP&B.

Economic Performance

Direct Economic Value Generated and Distributed[1]

	Value (USD)	Value (USD)	Value (USD)
	2020	**2021**	**2022**
Direct Economic Value Generated	**1,111,772,590**	**1,261,224,118**	**2,351,844,595**
Revenues	1,111,772,590	1,261,224,118	2,351,844,595
	2020	**2021**	**2022**
Economic Value Distributed	**945,652,976**	**1,030,150,606**	**1,486,511,665**
Operating costs	500,371,598	490,056,949	603,068,149
Employee wages and benefits	89,686,142	93,957,547	114,189,195
Payments to providers of capital	282,220,004	222,475,433	259,427,176
Payments to host countries governments	72,353,410	222,831,712	507,971,978
Community investments	1,021,821	828,965	1,855,167
Economic Value Retained	**166,119,615**	**231,073,513**	**865,332,929**

[1] Based on GRI 201: Economic Performance 2016, Disclosure 201-1 Direct economic value generated and distributed.



Solar PV Facility, Sumbawa, Indonesia

Chapter #4

Our Approach to Sustainability

26 MedcoEnergi's Three Pillars of Sustainability

28 Journey to Sustainability

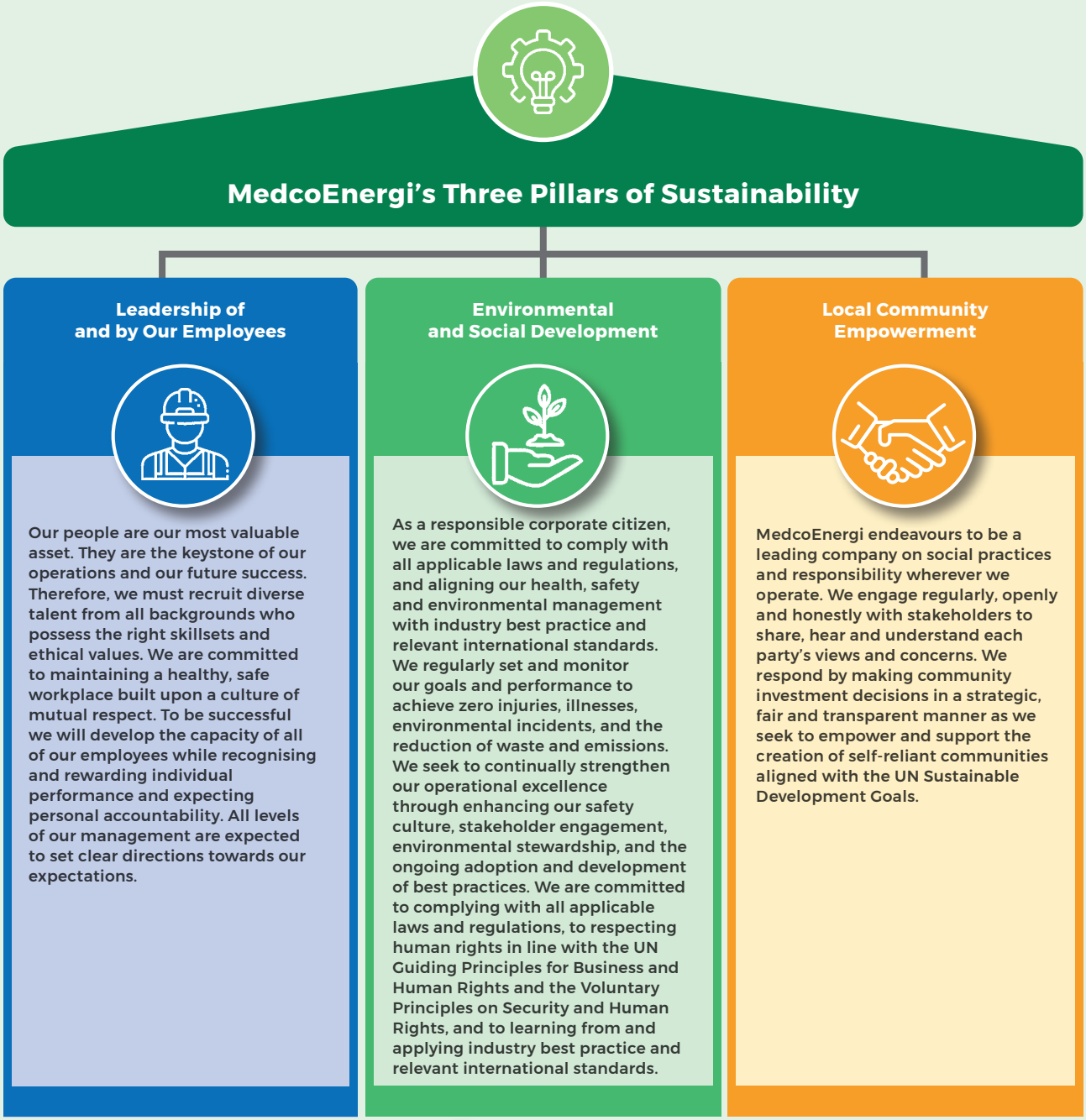
35 Engaging Our Stakeholders

36 MedcoEnergi's Membership and Initiatives

MedcoEnergi's Three Pillars of Sustainability



At MedcoEnergi, we strive to create long-lasting, positive impacts for our stakeholders. The three pillars of our Sustainability Policy reflect our commitment to the protection of our people's health and safety, the safeguarding of the environment and the support of our local communities. With these pillars as guidance, we conduct our business with integrity and transparency to secure our social license to operate.



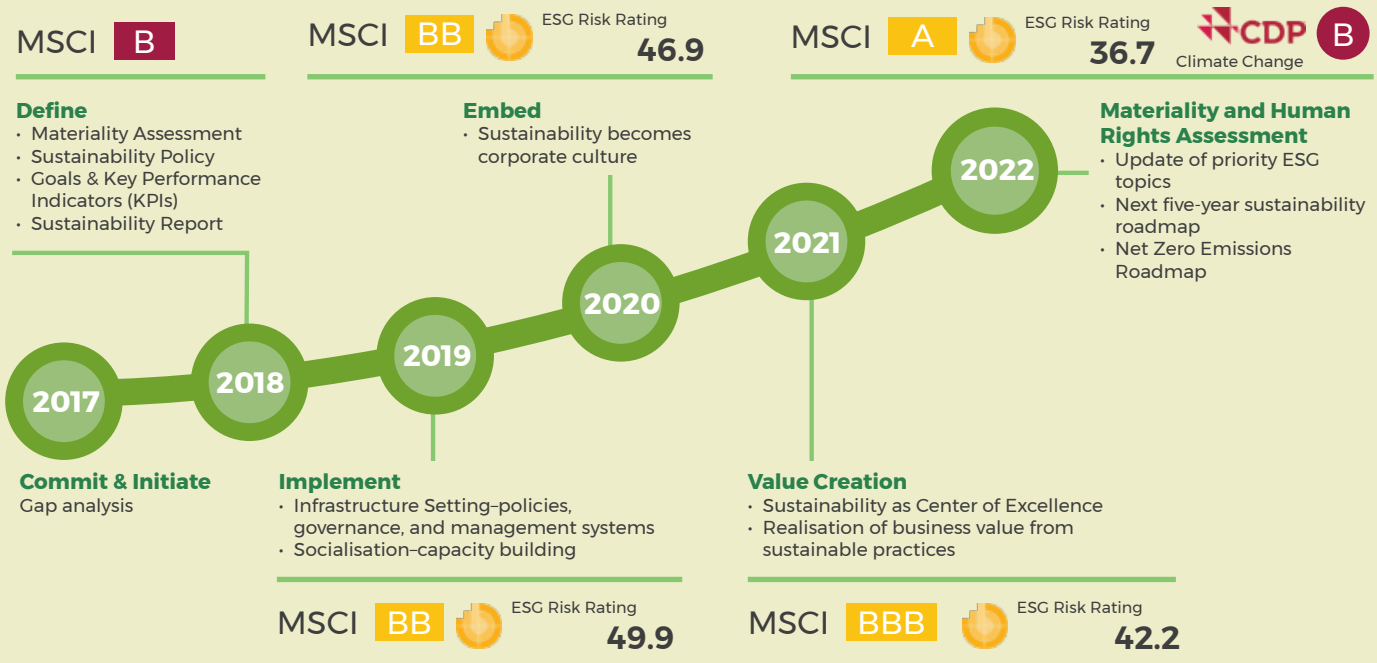
Our Sustainability Policy is mandatory and applicable to all employees and business units. The three pillars are enshrined in our core Corporate Values and Good Corporate Governance Principles, which we uphold vigorously.

Journey to Sustainability

We aim to nurture a culture of sustainability across our operations by integrating environmental, social, governance (ESG) and climate change actions within our business. We monitor the evolving landscape to maintain our level of ambition and enhance our performance. Consequently, our ESG and climate ratings have progressively improved.

The timeline below highlights our sustainability journey, in addition to our five-year roadmap, intended to raise the level of our performance to new heights from 2023:

MedcoEnergi Sustainability Roadmap 2017-2022[1]



MSCI and Sustainalytics disclaimer statement can be found on page 1.

[1] MedcoEnergi's Sustainability Roadmap 2017-2022 resulted from 2018 Materiality Assessment.



Corridor's rubber plantation programme in Macang Sakti Village, Musi Banyuasin, South Sumatra, Indonesia.

MedcoEnergi Sustainability Roadmap 2023-2027[1]

2023

- Update goals and KPIs based on 2022 materiality assessment
- Enhance sustainability & climate change capability
- Establish Human Rights Policy
- Conduct a Quantitative Climate-related Risk Assessment

2024

- Develop a Just Transition Plan
- Embed Climate Change Strategy in Corporate Business and Financial Plan
- Enhance governance, systems, capability building for Human Rights

2025

- Reduce 20% of Oil & Gas GHG Scope 1 & 2 Emissions[2]
- Reduce 25% of methane emissions for our oil & gas business[2]
- Increase renewable energy installed capacity by 26%
- Disclose Scope 3 GHG emissions
- Commit to upstream Carbon Capture and Storage (CCS) pilot project

2026

- Internal carbon pricing and carbon trading: credit and offset
- Partnership programmes to promote data transparency and for implementation of best practices along value chain

2027

- Further integrate sustainability into business to enhance value creation
- Reach top quartile of ESG performer in the oil & gas exploration and production sector in Southeast Asia
- Maintain or improve MSCI score of an A, Sustainanalytics score of 36.7 and CDP Climate Change score of a B
- Materiality assessment update for the next five-year roadmap

[1] We conducted double materiality assessment in 2022 to establish our 2023-2027 Sustainability Roadmap.
[2] Reduction from 2019 base year.

Our ESG and climate performances are rated by the following bodies:

MSCI ESG Ratings measure a company's management of long-term and financially-relevant ESG risks and opportunities. Companies are rated on a scale of AAA (leader) to CCC (laggard).

We received an A for our MSCI ESG Rating score.[1]

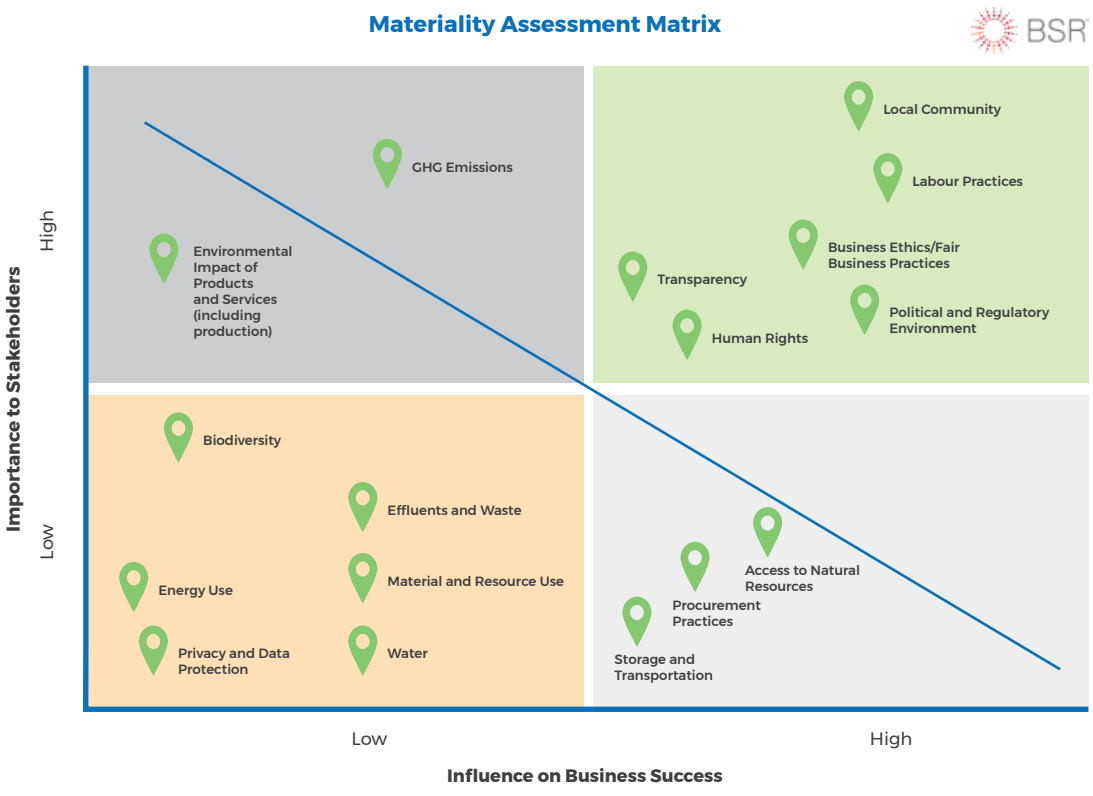
Sustainalytics' ESG Risk Rating measures a company's exposure to industry-specific ESG risks and their approach to the management of those risks. The Ratings are categorised according to five risk levels: negligible (0-10), low (10-20), medium (20-30), high (30-40) and severe (40+).

We improved our Sustainalytics ESG risk rating score from 42.2 to 36.7, ranking 70th out of 291 oil & gas producers industry[2].

CDP Climate Change assesses how well climate-related risks and opportunities have been identified and managed by companies and cities. Responding bodies are scored on a scale of A (Leadership) to D- (Disclosure).

We achieved a B for our CDP Climate Change score in 2022, placing us in the Management-level band. This score is higher than both the regional average in Asia and the oil & gas extraction and production sectors.

In 2018, we conducted a risk-based materiality assessment with the assistance of Business for Social Responsibility (BSR). Through inclusive engagements with our internal and external key stakeholders, we identified material issues relevant to our business, as represented in our materiality matrix below.



[1] MSCI ESG Rating for MedcoEnergi was accessed in April 2023.
[2] Sustainalytics ESG Risk Rating for MedcoEnergi was accessed in May 2023.

Based on this materiality assessment, our priority issues include the following:

- Local Communities
- Labor Practices
- Business Ethics and Fair Business Practices
- Political and Regulatory Environment
- Transparency
- Human Rights
- GHG Emissions

Revisiting Material Issues

In 2022, we revisited our materiality assessment to address the increasing sustainability and climate expectations of our stakeholders. We conducted a double materiality assessment[1] to identify key risks, opportunities and impacts relevant to our oil & gas and power businesses. This scope is in alignment with the reporting boundaries of our sustainability report.

Supported by the Business for Social Responsibility (BSR), we utilised numerous data sources and references, including the Global Reporting Initiative (GRI) and the Sustainability Accounting Standards Board (SASB) reporting standards to develop a list of material issues for MedcoEnergi.

To prioritise these issues, input was gathered from key internal and external stakeholders[2]. These included C-level management and senior leadership, representatives from government bodies, banks, investors, associations, business partners, universities, and civil society/non-governmental organizations (NGOs).

We identified a total of 27 material issues, categorised into Tier 1 and Tier 2, based on their significance. This categorisation is determined based on the likelihood and severity of the impact on our enterprise value, society, and the environment. We have mapped our Tier 1 material issues based on the three pillars of our Sustainability Policy.

BSR

Sustainability Pillars

Leadership of and by Our Employees

- Workplace health, safety, and wellbeing
- Security Practices
- Talent Attraction, Retention, and Development

Key Points
People/Organization a critical enable of success moving forward, and ability to attract and maintain a lean, efficient, and diverse pool of top fit-for-purpose talent.

Environment and Social Development

- Climate Risk and Resilience
- Climate Mitigation
- Climate Adaptation
- Water
- Air Quality
- Effluents and Waste
- Asset Integrity and Security

Key Points
The three Climate aspects (Risk and Resilience, Mitigation, and Adaption) as clear and urgent/significant issues.

Local Community Empowerment

- Local Communities
  - Health
  - Education
  - Local Infrastructure
  - Supporting Livelihood

Key Points
There are both risks of creating negative impacts on the livelihoods and environment, as well as opportunities for MedcoEnergi to share benefits with local communities

Governance

- Anti-corruption and Business Ethics
- Policy and Regulatory Environment
- Human Rights
- Responsible Procurement Practices
- Stakeholders Engagement

Key Points
Corruption is considered as one of the major global threats to both social development and market economy.

[1] While a materiality assessment evaluates the impact of ESG issues on our business, double materiality includes the effect of our business on the ESG issues. The approach aims to consider the dynamic relationship between an organisation and its environment.
[2] We engaged a total of 29 internal stakeholders and 23 external stakeholders from 16 organisations.

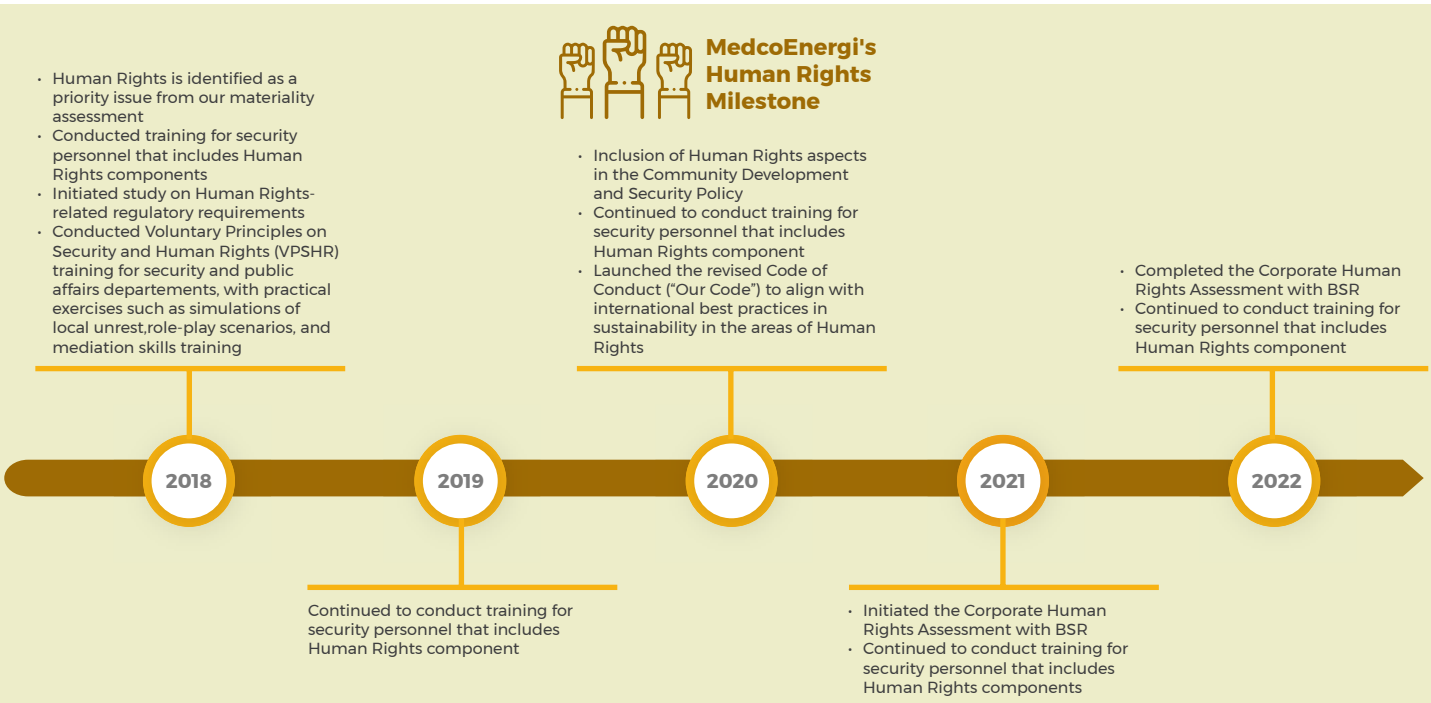
Compared with results from our previous assessment, climate change and energy transition have become priority issues for MedcoEnergi, emphasising urgency in addressing issues pertaining to 'Climate Risk and Resilience', 'Mitigation' and 'Adaptation'. This finding is in line with the increasing focus on energy companies to accelerate climate change business integration.

We are prioritising Tier 1 material issues in reporting our sustainability performance and progress. Nonetheless, we will continue to disclose our performance in a number of Tier 2 material issues, namely Biodiversity, Corporate Governance, and Local Employment, as we have in the past.

As the next step in the assessment process, we translated Tier 1 and Tier 2 material topics into key performance indicators (KPIs) and targets aligned with 2023-2027 MedcoEnergi's Sustainability Roadmap. This involved the collection of input from our business functions and BoD. We will start disclosing the progress of KPIs and targets for Tier 1 material topics in 2023 Sustainability Report.

Assessing our Human Rights Risk Exposures

Respecting 'Human Rights' is a Tier 1 issue and a key element in conducting our business with integrity. MedcoEnergi recognises that our expanding business portfolio exposes us to risks that may ultimately impact the human rights of others. Since 2019, we have initiated measures to integrate human rights considerations into our business. The timeline below highlights our milestones:



At MedcoEnergi, we aim to uphold and protect the rights of our employees when conducting our business. In 2022, we conducted a corporate-level human rights assessment with a methodology aligned with the UN Guiding Principles on Business and Human Rights (UNGPs) by interviewing eight groups with a total of 24 internal stakeholders, covering both our oil & gas and power businesses. With BSR's support, we completed the assessment, in which we identified salient human rights issues at corporate level focusing on our business actions. These issues were then prioritised based on the salience[1] of the risks and MedcoEnergi's existing management systems in addressing them. We examined our current management systems' strengths and areas for improvement in managing these issues.

The map on the next page illustrates our priority salient human rights issues.

[1] Salience is the combination of the degree of severity and likelihood of the risk.

MedcoEnergi's salient human rights issues are listed below:

BSR

Labor Conditions

- Working Conditions (Work Hours, Rest Periods, Leave and Contract)
- Non-Discrimination, Fair and Equal Treatment
- Freedom of Association and Collective Bargaining
- Workplace Health and Safety

Business Ethics

- Fraud and Anti-corruption

Socia-economic Impacts

- Land use, acquisition and resettlement
- Community Development and Local Employment

Operational Impacts

- Life, Freedom, and Security
- Privacy, Data, and Cyber Security
- Climate Change and Environmental Impacts
- Cumulative Impacts
- Just Transition and Responsible Disengagement

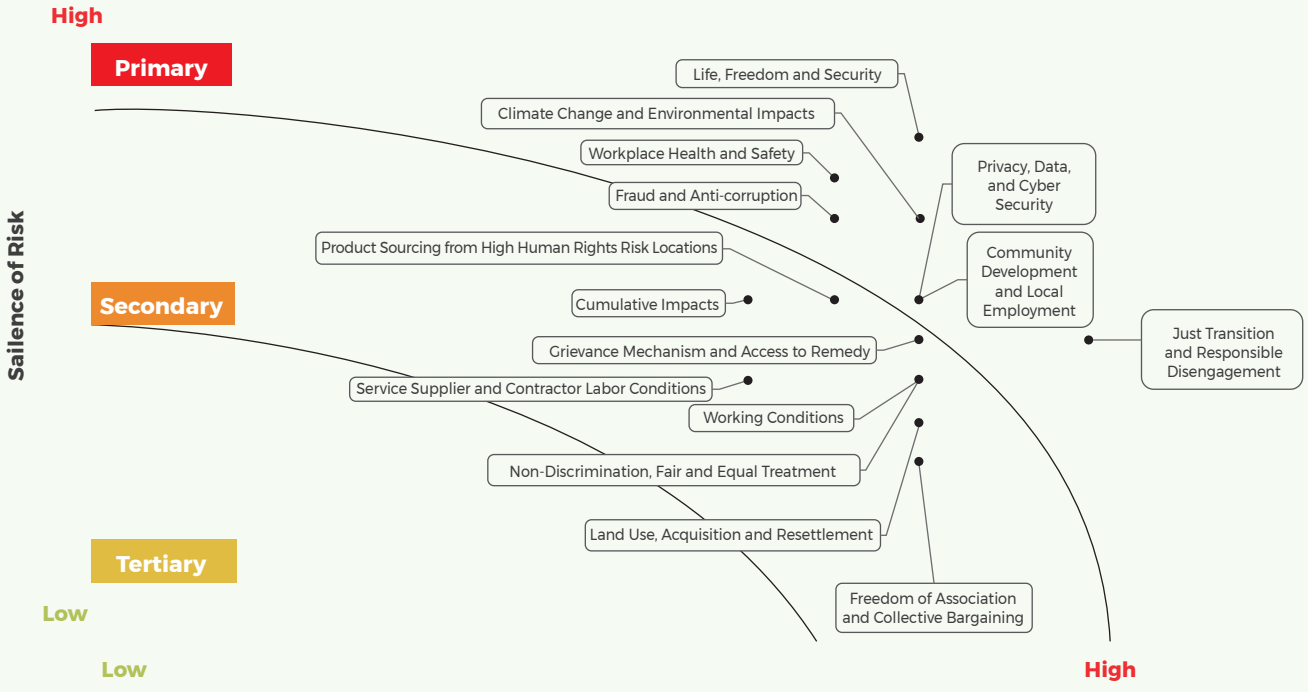
Grievance Mechanism

- Grievance Mechanism and Access to remedy

Supply Chain

- Service Supplier and Contractor Labor Conditions
- Product Sourcing from Human Rights High Risk Locations

Map View: Prioritized Human Rights Risk for MedcoEnergi





MedcoEnergi Thailand received a Sustainability Disclosure Recognition from Thaipat Institute, Thailand

As our next step, we will use our findings to develop a Human Rights Policy and a roadmap to prevent, mitigate and remedy actual and potential adverse human rights impacts related to our business.

We sent our company representatives to participate in the sessions on Business and Human Rights (B+HR) Academy in October 2022, which was organized by Foundation for International Human Rights Reporting Standards (FIHRRST) and United Nations Development Programme (UNDP), and funded by the Government of Japan.

The Business and Human Rights (B+HR) Academy is an initiative by UNDP aiming to build capacity on human rights due diligence (HRDD) by implementing UNGPs through tailored-made trainings and advisory sessions for businesses thus preserve their competitiveness in the global supply chain.

Our projects in Medco Power funded by the International Finance Corporation (IFC) have complied with IFC Performance Standards since 2012 and routinely undergo external audits at the IFC's request. The most recent IFC audit in 2018 reported no issues related to human rights violations.

Leveraging Digitalisation to Enhance Our Security Measures

One of the salient issues identified concerns "Privacy, Data, and Cybersecurity". With the growing reliance on digital technology in our industry, there is increasing concern regarding breaches of data privacy and security which may have significant impacts on the business, employees and communities.

In 2022, we developed a new MedcoEnergi Digital Information Technology strategy to enhance our business value by leveraging digital technologies. This strategy aims to optimise our operations and processes via four focus areas:

- Strengthening our digital foundation by deploying and improving our application platform.
- Establishing a new digital operating model which aligns our structure, processes and governance with strategic and agile business decisions.
- Driving digital transformation across our business by:
  - adopting and deploying digital technologies aligned with our business strategy.
  - developing our employees' knowledge and skills in integrated data and analytics.
- Strengthening our cybersecurity to protect our business from complex cyber threats.

For our next steps, we will translate these focus areas into detailed programmes and initiatives to enable MedcoEnergi's digital transformation.

Engaging Our Stakeholders

Consistent stakeholder engagement allows us to remain informed of our stakeholders' expectations, priorities and needs. It allows us to address their concerns effectively, and enables us to maintain our social license to operate.

At MedcoEnergi, we view our stakeholders as our partners. Through our regular engagements and campaigns, we seek their feedback to incorporate and strengthen our targets and programme. We engage our stakeholders based on priorities, strategic values and resources. In doing so, we aim to secure long-term stakeholder value by building relationships based on mutual trust and transparency.

In 2022, we continued our partnership with BSR and other international and national organisations, such as the Indonesia Business Council for Sustainable Development (IBCSD) and GRI. We actively contributed in various sustainability initiatives, such as providing feedback to the government in emerging climate change-related regulations through Indonesian Petroleum Association and Indonesian Renewable Energy Society, providing input for the development of the ASEAN Taxonomy for Sustainable Finance, responding to Japan International Cooperation Agency's survey on workers' protection during the pandemic, and joining an FGD on Corporate Business Strategy and Adaptation towards Net Zero Emissions. The following table lists MedcoEnergi's stakeholder groups and the engagement and support we provide:

MedcoEnergi's Stakeholders

Shareholders	• General Meetings with shareholders to present MedcoEnergi's annual results, material decisions and other significant corporate actions. • Regular meetings between our management team and investor base.
Employees	• Regular engagements with Workers' Union representatives • Communications forums to resolve matters related to employee relations and employment benefits, terms, and conditions.
Contractors, Suppliers, and Business Partners	• Regular socializations of our Corporate Governance principles, Corporate Values and Code of Conduct.
Communities	• Facilitation and implementation of stakeholder engagement and community development plans. • Socialization of our grievance mechanisms in our Social Management System (SMS). • Local communities' empowerment through our capacity-building, including women and youth development programmes and initiatives.
Goverment and Regulator	• Regular consultations and cooperation with government agencies and authorities to empower local communities, support our workforce and mitigate adverse environmental and social impacts.
Banks and Investors	• Annual disclosure of our ESG data in our Sustainability Report. • Publish monitoring reports to our lenders and provide quarterly investor updates. • Collaboration with banks to adhere to the Equator Principles (EP) to finance our projects.
NGO and Civil Society Organisation	• NGOs and civil society organisations are important stakeholders that we engage on a proactive basis. We maintain communication with stakeholders from the NGO community to listen to and gather feedback.
Consumers	• Contribute to the government's objective of increasing natural gas use for Indonesia, Singapore and Vietnam. • Supply gas to the Indonesian state-owned enterprise PT Pupuk Sriwidjaja Palembang, a producer of fertilizers for farmers in South Sumatra. • Provide electricity to the Indonesian state-owned electricity company PT Perusahaan Listrik Negara Persero via Medco Power.
Media	• Media engagements and press conferences at the local and national level. • Conduct awareness and competency training for journalists in the oil & gas industry.
Academia	• Work in collaboration with universities, including Gadjah Mada University (Yogyakarta), Syiah Kuala University (Banda Aceh), Tadulako University (Palu), Bogor Agriculture University, Bandung Institute of Technology, and Samudra University (Langsa, Aceh) on various capacity-building programmes and knowledge-sharing sessions.

MedcoEnergi's Memberships and Initiatives

Our involvement in various associations and organisations enables us to be at the forefront of key global topics relevant to our business and operations. We aim to exercise our influence to encourage best practices in securing and providing sustainable energy and natural resources.

Country	Name of Organisation	Position
Indonesia	Association of Indonesian Oil & Gas Industry Remuneration Practitioners (APRIMI)	Member
	Auditors Forum of SKK Migas - KKKS (FAMI)	Steering Committee
	Hydropower Plant Developers Association (APPLTA)	Member
	Indonesian Business Council for Sustainable Development (IBCSD)	Member
	Indonesian Employers Association (APINDO)	Member
	Indonesian Chamber of Commerce and Industry (KADIN)	Member
	Indonesian Electrical Power Society (MKI)	Member
	Indonesian Environmental Impact Assessment Forum (FAI)	Chairman
	Indonesian Geothermal Association (INAGA)	Member
	Indonesian Petroleum Association (IPA)	Board of Directors
	Indonesian Independent Power Producers Association (APLSI)	Member
	Indonesian Renewable Energy Society (METI)	Board of Supervisors
	International Society of Sustainability Professionals (ISSP)	Member
	IPA Ethics and Compliance Committee	Chairman
	IPA- Environmental and Safety Committee	Secretary
	National Centre for Sustainability Reporting - Energy Sector (NCSRE)	Chairman
	Public Relations Forum of SKK Migas - PSC Contractor	Steering Committee
	The Climate Reality Project Indonesia	Leader
Thailand	Oil Industry Environmental Safety Group Association (IESG)	Member
	Petroleum Institute of Thailand (PTIT)	Member
	Society of Petroleum Engineers (SPE)	Member
Oman	Oman Chamber of Commerce and Industry (OCCI)	Member
	Oman Society for Petroleum Services (OPAL)	Member

In addition the above list, we are also members of BSR, a sustainable business network and consultancy, and CDP (formerly Carbon Disclosure Project), a not-for-profit charity that runs the global disclosure system for investors, companies, cities, states and regions to manage their environmental impacts.



Chapter #5

Strengthening Our Governance

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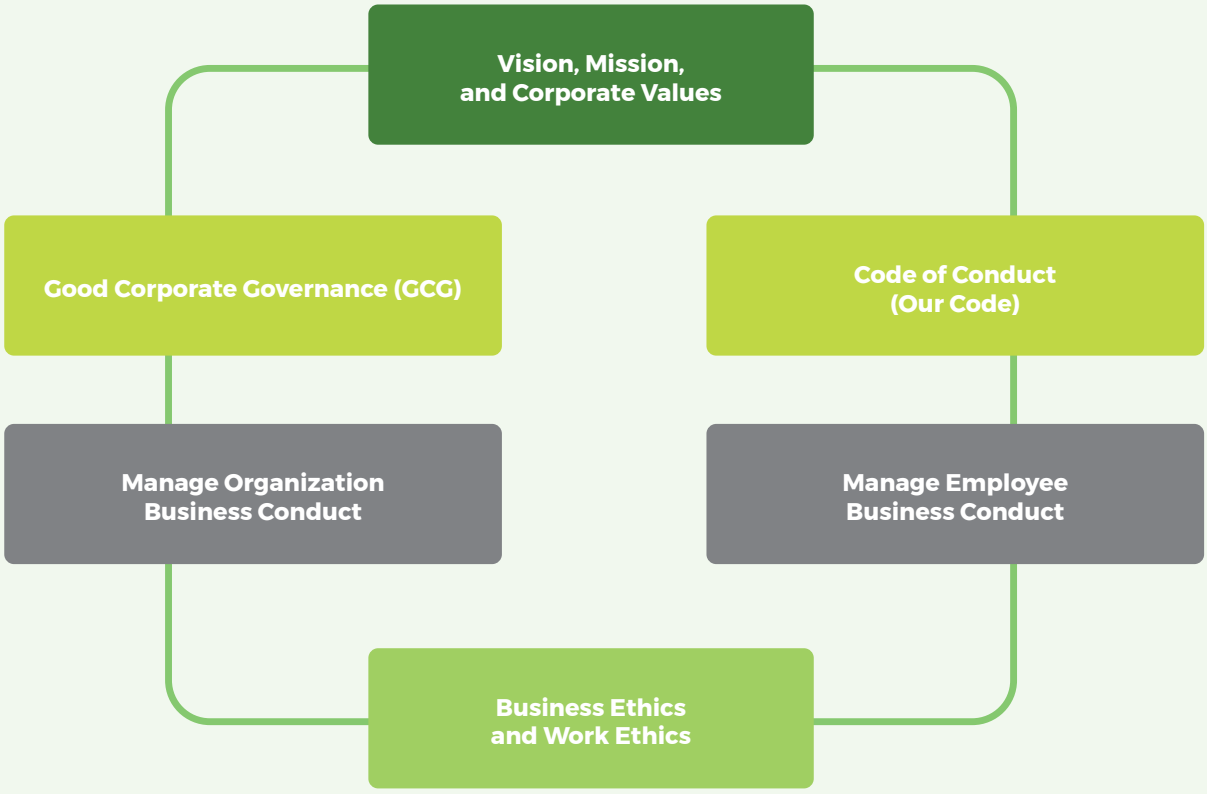
MedcoEnergi aims to uphold sustainable business practices and maintain a culture of compliance and transparency. We believe ethical and responsible governance forms the foundation in securing long-term stakeholder value and business resilience. An effective leadership structure is critical to the realisation of MedcoEnergi's vision, mission, values, sustainability and climate aspirations.

Approach, Commitment, and Goals

MedcoEnergi adopts an ethics-based approach underpinned by a culture that values and rewards sustainable long-term relationships with stakeholders. We implement our Good Corporate Governance (GCG) Principles and Code of Conduct (Our Code) across our subsidiaries and business units.

We implement them along with a regulatory approach based on compliance with prevailing laws, regulations and international and industry best practices and standards.

Relationship between GCG and Our Code



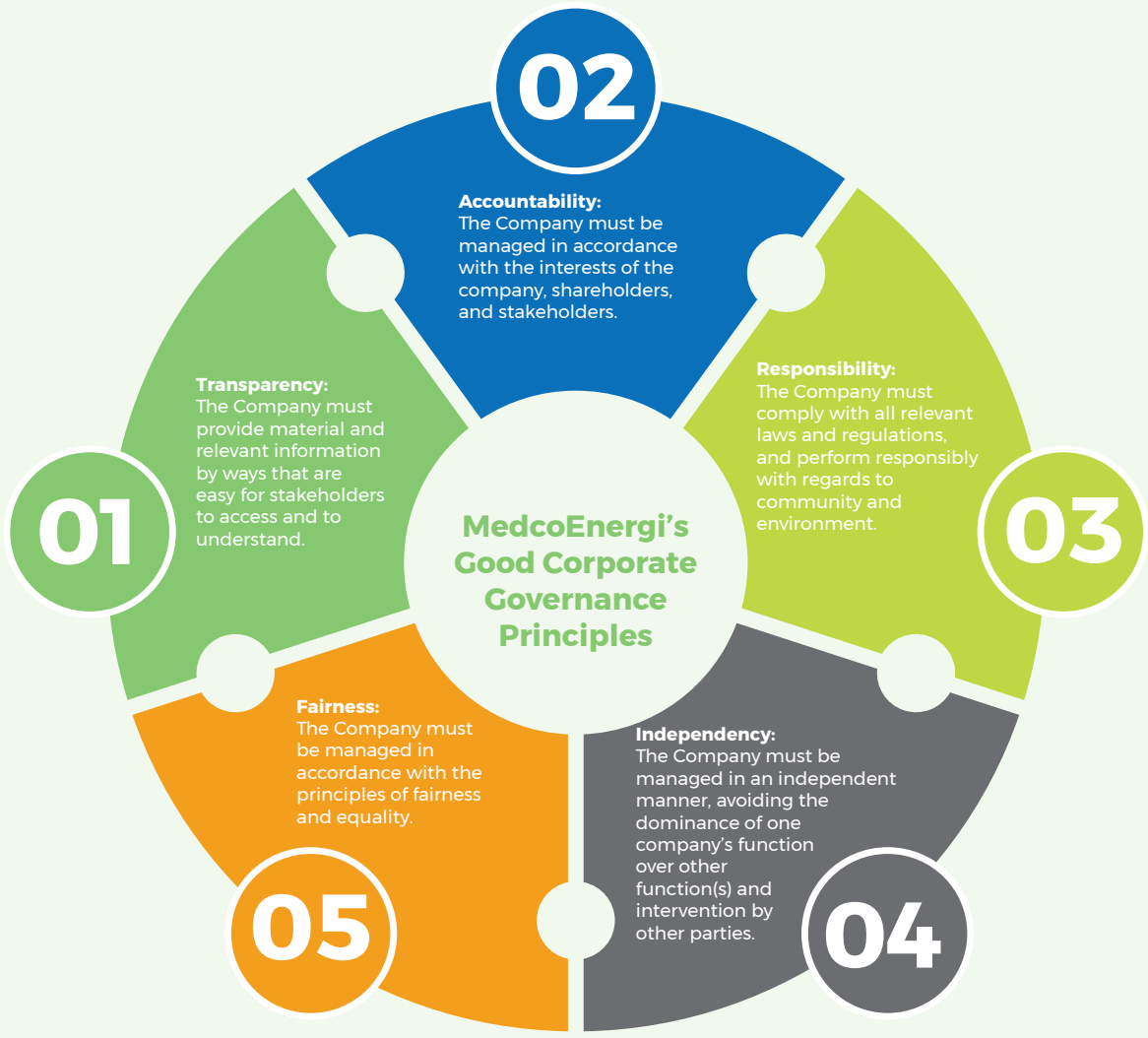
Good Corporate Governance Principles

Our governance is founded on the principles of Transparency, Accountability, Responsibility, Independence and Fairness. The GCG provides guidance on how our organisation should be governed by the MedcoEnergi Board of Commissioners (BoC) and Board of Directors (BoD).

By implementing these principles, MedcoEnergi aims to mitigate negative impacts related to poor governance, which could lead to unethical practices, financial mismanagement and diminished stakeholder confidence.

MedcoEnergi's GCG Implementation Guideline can be accessed in MedcoEnergi's website.

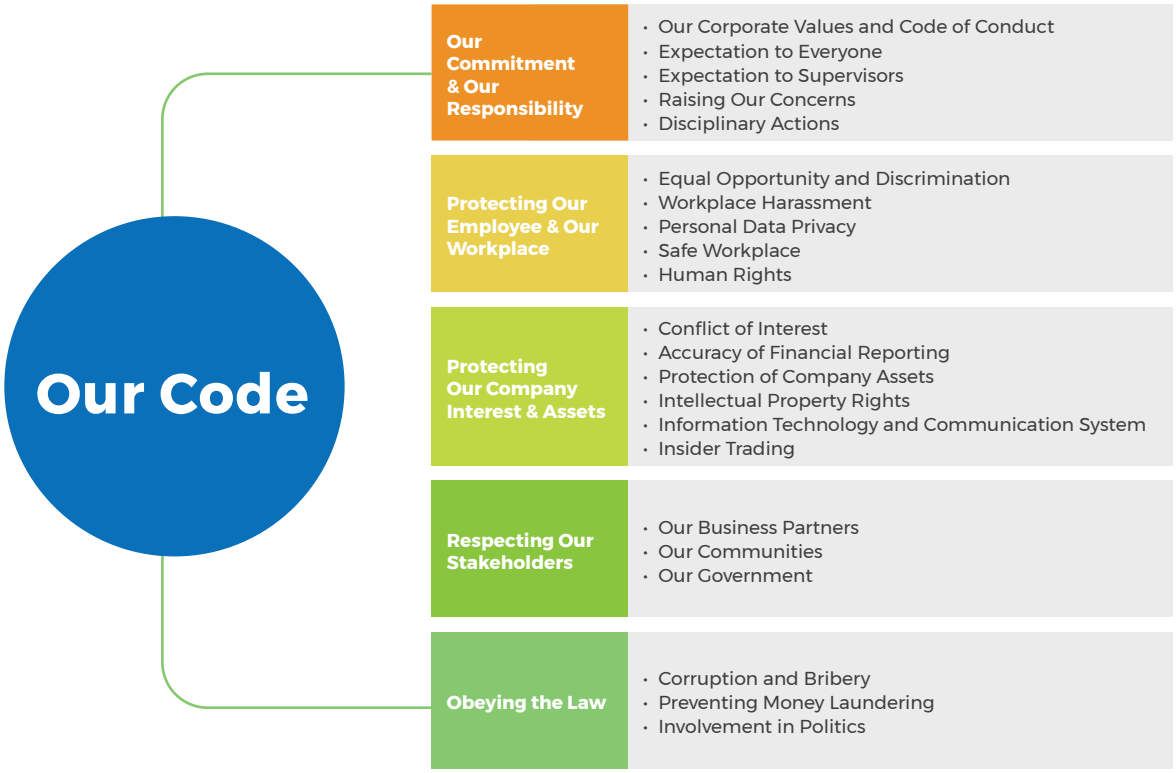
MedcoEnergi's Good Corporate Governance Principles



Our Code

Our Code is based on the Corporate Values of MedcoEnergi – professional, ethical, open and innovative. With the tagline "Know the Code, Know the Commitment", it defines the expectations, roles and responsibilities we expect our people to uphold when conducting MedcoEnergi's business. The Code is aligned with international best practices in human rights, personal data privacy, anti-corruption and anti-money laundering.

Our Code



It is imperative that all our stakeholders follow Our Code without exception, regardless of the applicable governance risk level by geographical location. Our Code is accessible through MedcoEnergi's website.

Code of Supplier

As part of Our Code, we inform our business partners of our expectations via the MedcoEnergi Code of Supplier, formalised in December 2022. This Code not only defines our expectations, but also highlights potential exposure to applicable laws, regulations and compliance risks. Our Code of Supplier helps us manage actual and potential impacts from our business relationships, and is accessible in MedcoEnergi's website.

Corporate Governance Structure

Our GCG structure delegates the roles and responsibilities of MedcoEnergi's BoC and BoD, who perform a pivotal role in providing guidance and oversight on sustainability integration for our responsible business practices.

Board of Commissioners

The BoC supervises the BoD and ensures that GCG is implemented across our organisation. The BoC provides advice pursuant to the Articles of Association and is tasked with chairing the Annual General Meeting of Shareholders (AGMS), monitoring internal and external audits, supervising risk management processes and making remuneration recommendations based on performance evaluations.

In the execution of its duties, the BoC is supported by the Audit Committee, Nomination and Remuneration Committee, Sustainability and Risk Management Committee (SRMC) and GCG Committee.

The BoC provides oversight and guidance to the BoD on risk management for all businesses, including sustainability and climate-related risks and opportunities, with the support of the SRMC.

Board of Directors

Our BoD is responsible for managing and aligning MedcoEnergi's business and operations with the interests and objectives of our shareholders in mind. They are tasked with implementing the Company's business strategies and objectives, including our Sustainability Strategy, in line with our values. The BoD is responsible for implementing a risk management process, overseeing the integration of sustainability-related issues, formulating the annual Work Programme and Budget, and reviewing our business and sustainability-related targets and key performance indicators (KPIs).

In monitoring and addressing climate-related risks and opportunities, the BoD is supported by our Climate Change and Energy Transition Working Groups, as well as relevant corporate functions such as the Corporate Sustainability and Risk Management (CSRM), Corporate Health and Safety (HSE) and Corporate Planning and Investor Relations.

Sustainability and climate-related issues and our progress in achieving these aspirations are scheduled agenda items in senior management weekly meetings, monthly performance reviews, Quarterly Performance Review (QPR), project gate review meetings and at the SRMC meeting.

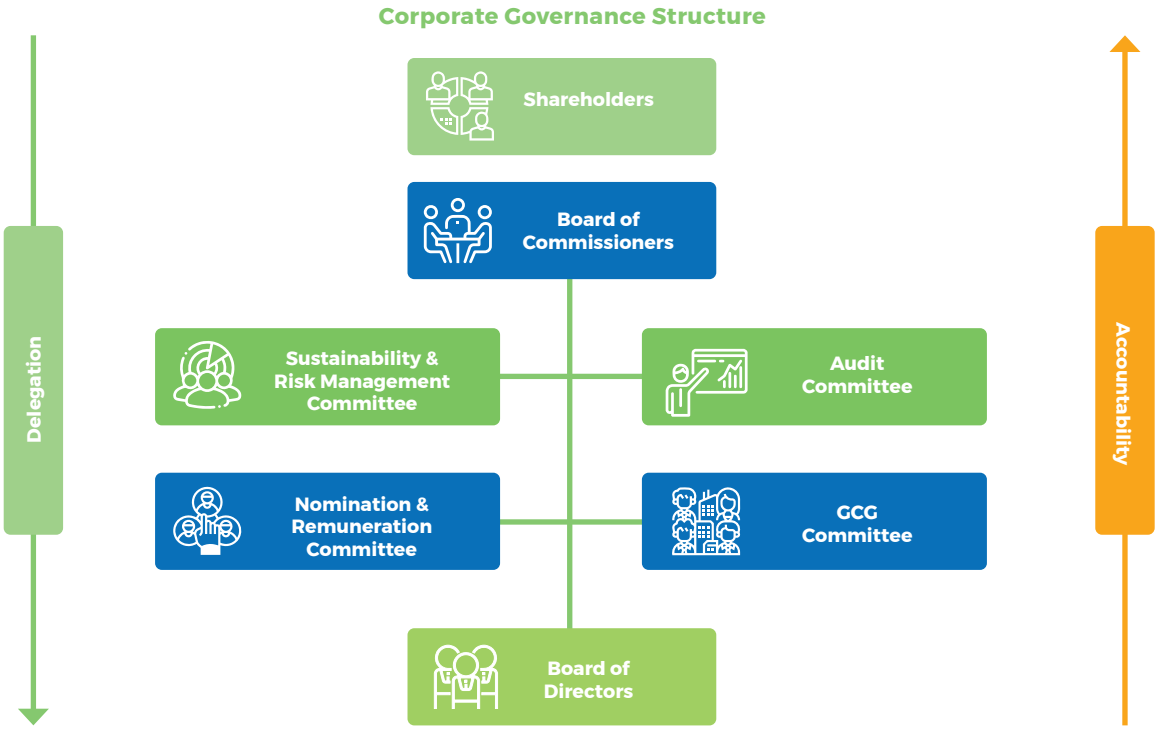
Sustainability-linked Remuneration

MedcoEnergi's sustainability performance is considered when determining the remuneration for each member of the BoD and BoC. The Nomination & Remuneration Committee considers the Company's annual sustainability performance, scope of work, duties and responsibilities, as well as industry best practices. The Committee prepares proposals for remuneration, which are then presented by the BoC at the AGMS to be approved by shareholders.

Fair and Ethical Business Practice

We place a strong emphasis on conducting business in a fair and ethical manner. This is integral to the Company's corporate governance and is closely overseen by the GCG Committee.

The GCG Committee is responsible for the review and evaluation of the GCG principles and ethical standards implemented within MedcoEnergi. The Committee also evaluates potential conflicts of interest and other violations within the BoD and recommends appropriate action to uphold our ethical standards. Additionally, the Committee reviews the BoD's annual report on the implementation of GCG practices and acts as a role model to promote the consistent implementation of GCG practices.



Sustainability and Risk Management Governance

Sustainability and Risk Management Committee (SRMC)

The BoC fulfils its corporate governance oversight responsibilities related to sustainability, climate and risk management through the SRMC. This responsibility includes addressing climate-related risks and opportunities pertaining to the implementation of our Climate Change Strategy.

Corporate Sustainability and Risk Management (CSRM)

MedcoEnergi's CSRM division assists the BoD with implementation of the sustainability, climate and risk management agenda. CSRM coordinates with other divisions and entities within the Company such as Health, Safety and Environment (HSE), Human Resources (HR), Relations and Security (R&S) and Audit and Integrity Compliance (A&IC) to monitor progress towards meeting MedcoEnergi's sustainability targets. These functional teams support the integration and implementation of our sustainability, climate and risk management agenda, programmes, and initiatives at the asset level and across our business sectors.

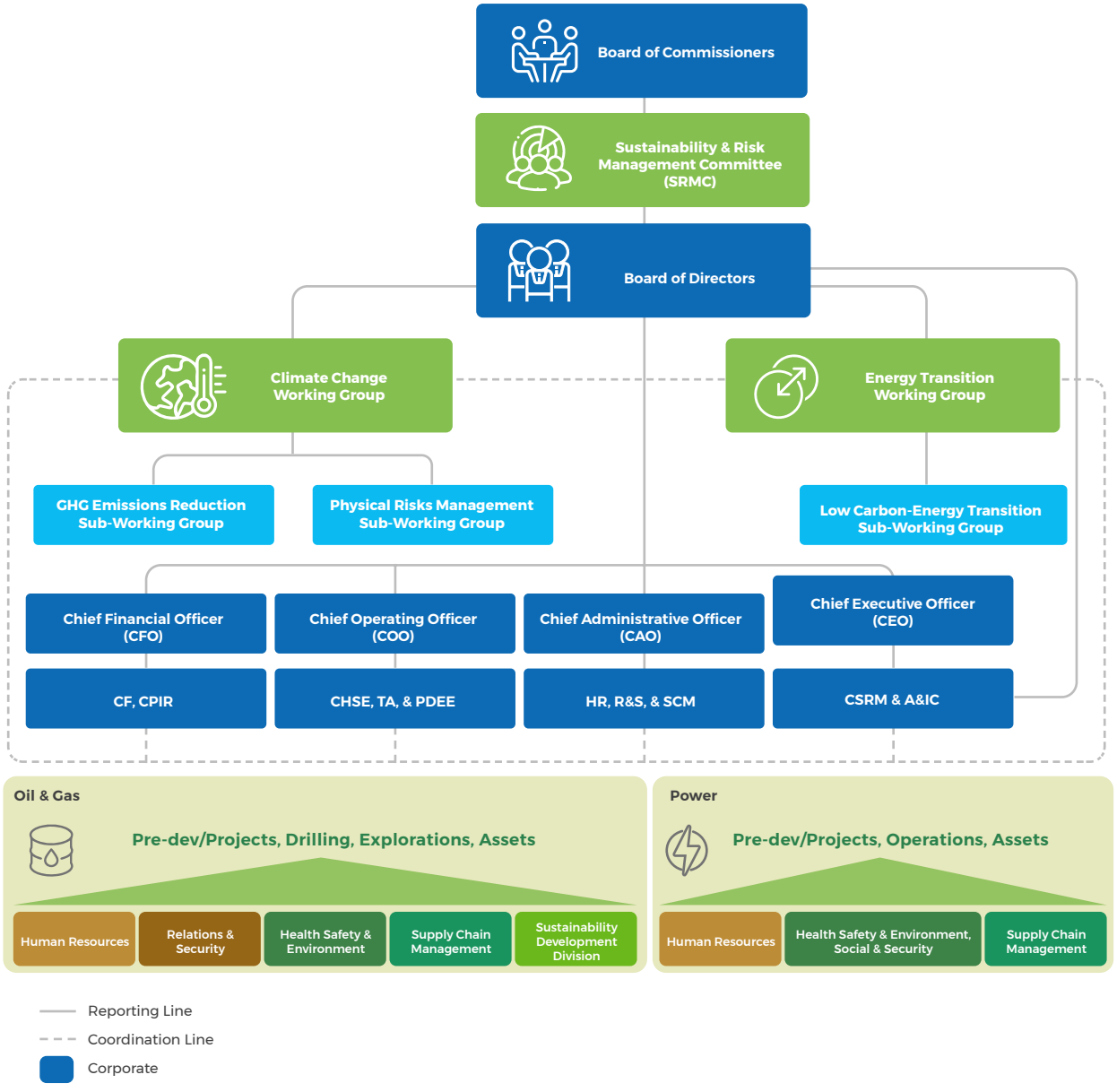
During our QPR, the functional teams are responsible for reporting to the BoD on their risk registers and sustainability performance. The BoD then provides updates to the BoC at SRMC meetings.

Working Groups

In line with our climate aspirations, we are managing both climate-related physical and transition risks and opportunities. We have formalised two working groups to implement initiatives aimed at addressing these risks, namely the Climate Change Working Group and the Energy Transition Working Group.

The Climate Change Working Group is responsible for overseeing and implementing greenhouse gas (GHG) emissions reductions and managing physical climate risks. The Energy Transition Working Group is responsible for managing the transition to low-carbon energy by growing MedcoEnergi's natural gas, as the transition energy source, and renewable energy portfolio.

Organisational Structure of MedcoEnergi Climate Governance



Notes:

CF	:	Corporate Finance
CPIR	:	Corporate Planning & Investor Relation
CHSE	:	Corporate Health, Safety & Safety
TA	:	Technical Assurance
PDEE	:	Project Development and Engineering Excellence
HR	:	Human Resources
R&S	:	Relations & Security
SCM	:	Supply Chain Management
CSRM	:	Corporate Sustainability & Risk Management
A&IC	:	Audit & Internal Compliance

Risk Management

We implement an Enterprise Risk Management (ERM) framework to identify, address and manage actual and potential risks that may impact the Company.

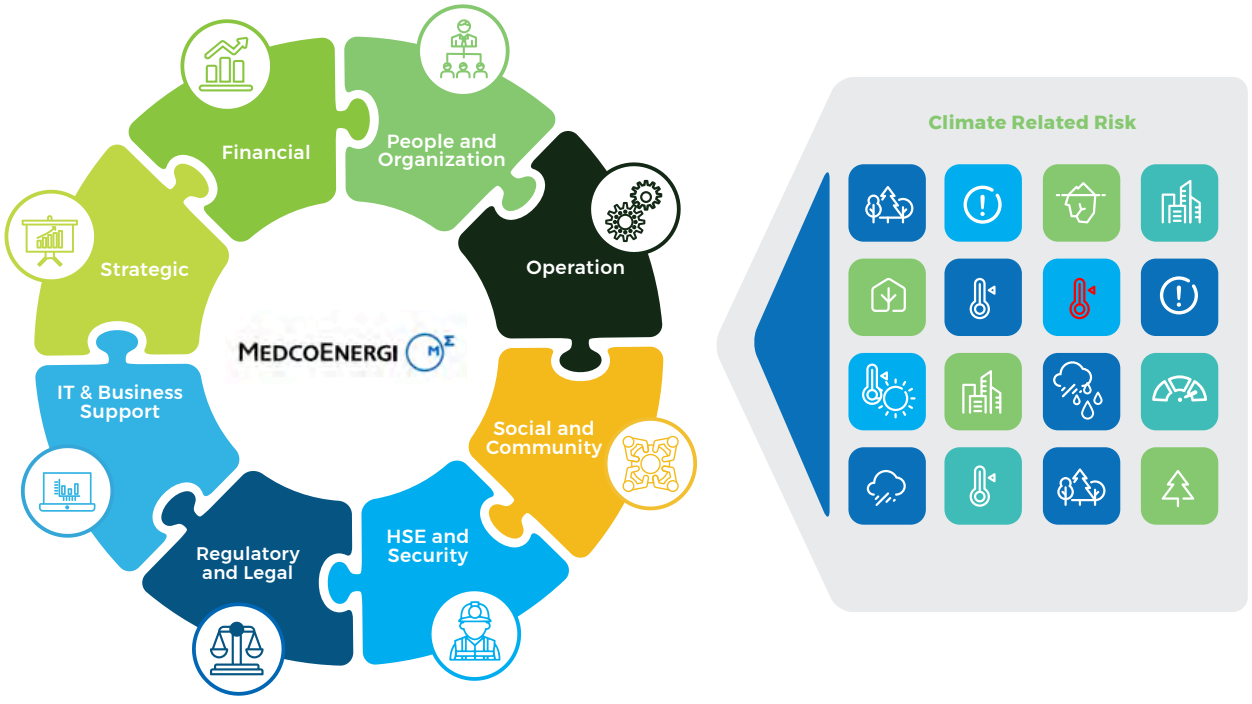
Our ERM framework follows the ISO 31000:2018 standards, and forms the governance portion of our Sustainability Framework. We conduct rigorous identification and assessments, monitoring, and reporting of all facets of risks, including those that may arise from our business partners.

The framework covers various risk categories from strategic and operational to social and community.

Climate-related impacts are identified to interact with all categories within our risk universe. As a leading energy and natural resources company, changes due to the energy transition and physical impacts of climate change present risks and opportunities for our business.

The diagram below illustrates MedcoEnergi's risk universe:

Risk Universe of MedcoEnergi



In 2021, we conducted a climate scenario analysis to identify physical and transition risks and opportunities relevant to MedcoEnergi. We then utilised the findings to develop mitigation measures. This exercise was completed in alignment with the Task Force on Climate-Related Financial Disclosures (TCFD) recommendations. A detailed breakdown of the assessment's methodology and findings can be accessed in our TCFD report issued in 2022.

We will update the analysis to utilise the latest climate scenarios and enhance the level of detail by conducting a quantitative climate scenario analysis. This will allow us to better understand the financial impacts of climate change on our business.

Corporate Governance Assurance Framework, Programmes and Policies

We have established the Corporate Governance Assurance Framework to support our Board in upholding and implementing MedcoEnergi's GCG and Our Code. It aims to create a supporting structure for our Board's oversight on compliance, accountability and transparency within the Company.

The framework comprises six components: Corporate Values and Our Code, Prevention, Detection, Response, Monitoring & Evaluation and Continuous Improvement.



Our Corporate Values and Our Code

Our Corporate Values and Our Code define the standards that govern how our people conduct their work, carry out responsibilities and behave according to ethical values.

International Compliance Programme

MedcoEnergi is committed to complying with all applicable laws and regulations in the areas in which we operate. In 2022, we expanded our compliance efforts to cover our international assets.

International Compliance Program

Corporate Sanctions Compliance

In 2022, we continued the implementation of our Corporate Sanctions Compliance Policy and Programme.

Our Sanction Compliance Journey is highlighted in the timeline below:

2020

Based on the framework issued in 2019 by US Department of the Treasury's Office of Foreign Asset Controls (OFAC), MedcoEnergi conducted gap analysis in sanction compliance program.

We also conducted Sanction Compliance Workshop covering the fundamentals of sanction risk and assessment, related internal control measures, OFAC screening tools and the WorldCheck system.

2021

MedcoEnergi issued our Corporate Sanction Compliance Policy and launched our Sanction Compliance programme. This involves a series of Sanctions Awareness and Risk Assessment sessions attended by our functions.

2022

MedcoEnergi conducted our first Compliance Awareness Session for Medco Power. The session was attended by various business functions from Finance and Treasury, Supply Chain Management, Business Development, to Legal and Corporate Communication.

Anti-Money Laundering

MedcoEnergi is currently in the process of developing our Anti-Money Laundering (AML) Policy and Programme, which we aim to establish in 2023.

This Policy will be applicable to all MedcoEnergi entitles and aims to strengthen our transparency to protect our business integrity.

In developing MedcoEnergi's AML Programme, we have:

1. Conducted a benchmark analysis on best AML practices with other multi-national oil & gas companies
2. Communicated our AML commitments and expectations to our vendors through our Compliance E-Newsletter
3. Socialised our AML commitments and shared examples of recommended mitigation measures to our oil & gas business partners during the 2022 Vendor Day
4. Led IPA ECC to conduct a seminar on AML Trends and Challenges, in collaboration with the United Nations Office on Drugs and Crime (UNODC) and Hogan Lovells DNFP
5. Plans to enhance our policies and procedures related to AML in Our Code

Due Diligence

In 2022, expanded our Due Diligence (DD) journey to encompass third-party risks. We collaborated with an external consultant to screen our high-risk business partners. The following highlights our DD focus areas for the next five years, based on risk exposures:

2023	2024	2025	2026	2027
Marine	License and permit	Logistic and inspections	Manpower services	Security services

In order to ehance our internal capabilities, our Audit and Integrity Compliance (A&IC) team participated in a workshop on Third-Party Due Diligence facilitated by a Subject Matter Expert (SME) specialising in conducting advanced due diligence.

Our DD Journey is summarised below:

	2020	2021	2022
Oil & Gas	-	19	20
Power	-	9	9
JOB-Tomori	-	3	-
Total no. of Vendor Due Diligence Conducted	**-**	**31**	**29**

Prevention

We prevent violation of our ethical standards and policies through several Prevention initiatives. These are critical in upholding good governance within our organisation.

Ethics Ambassador Programme

Our Ethics Ambassador Programme aims to nurture a culture of ethical compliance through employee engagement and involvement. We handpick employees to participate in a capacity-building programme covering ethics and compliance, risk identification and remediation. They are then assigned to become "Ethics Liaisons Officers (ELOs)" in Medco Oil & Gas, "Compliance Champions" in Medco Power, and "Integrity Champions" in Corridor.

	Oil & Gas	Power	Corridor
Programme Title	Ethics Liaisons Officer (ELO) Programme	Compliance Champion Programme	Integrity Champion Programme
No. of Personnel in 2022	60	13	16
Role and Responsibilities of Personnel	• Lead discussions and deliver presentations on ethics to the group • Provide awareness and support to the group utilising ELO materials (presentation, case studies, posters and infographics) • Participate in corporate campaigns (including Ethics & Compliance Week and Anti-Corruption Day) and distribute campaign tools coordinated by the A&IC division.	• Communicate and discuss issues related to ethics and compliance from subsidiaries to MPI head office • Monitor the design and implementation of the Anti-Bribery Management Systems (ABMS) and other bribery-related matters • Monitor compliance of ABMS with ISO 37001 requirements • Report on ABMS performance to top management and other compliance-related functions as required.	• Share ethics moments at team meetings • Distribute compliance and ethics materials using materials provided by the A&IC division • Participate in corporate campaigns (such as Ethics & Compliance Week) and distribute campaign tools coordinated by the A&IC division.

The increasing outreach of our Ethics Ambassador Programme is shown in the table below[1]:

	2020	2021	2022
Domestic Oil & Gas	1,050	1,360	2,530
International Oil & Gas	–	83	74
Corridor			1,311
Number of Participants	**1,050**	**1,443**	**3,924**

Communication and Education Initiatives

In upholding our culture of compliance, we continue to implement our communication and education initiatives to heighten the awareness of our employees. In 2022, we hosted and presented:

- **Compliance Refresher and Awareness Training** for our corporate functions, including Corporate Relations and Security, Thailand's Relations & Security (R&S) and Legal and Finance
- **Ethics Awareness Training** for MedcoEnergi's contractor employees, covering business ethics, information systems (IS), security and social media
- **New Hire Induction Training**, covering topics related to MedcoEnergi's GCG and Our Code
- **Medco Leadership Programme** for levels supervisors and above, providing a refresher on Our Code
- **International Anti-Corruption Day** to raise awareness and reinforce MedcoEnergi's anti-corruption stance. In 2022, we expanded our International Anti-Corruption Day to our business partners
- **Socialisation** of our Collective Labour Agreement (CLA) and our Business Ethics & Corporate Protection Guidelines.

[1] The number of participants for the ELO Programme includes employees and contractors. These numbers are not assured by KAP PSS - EY.

Detection

MedcoEnergi has established a fraud detection program to identify red flags and unusual patterns in financial transactions, employee behavior, or other areas that may indicate fraudulent activities. This program includes fraud detection procedures, such as data analysis, transaction monitoring, and employee and third-party monitoring. The company has also implemented systems to detect and report misconduct against its Code of Conduct, allowing for appropriate action to be taken by relevant parties.

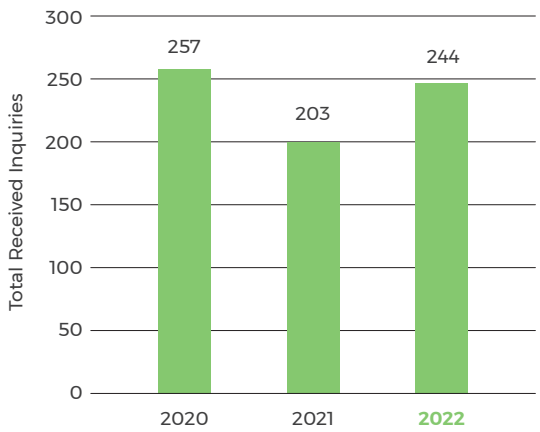
MedcoEnergi Internal Ethics Hotline

Our employees are provided with an internal hotline for any compliance-related enquiries and an external hotline for reporting fraud and concerns regarding misconduct.

Internal Ethics Hotline	
E-mail	EthicsHotline@medcoenergi.com
Phone (Office Hours, 7AM-4PM)	(+62-21) 2996 5899
Office Visit	The Energy Building – MedcoEnergi Audit dan Integrity Compliance Division SCBD Area Lot. 11A, Jl. Jend. Sudirman, Jakarta 12190

In 2022, we received 244 enquiries on our internal hotline, mostly relating to seeking guidance regarding Conflict of Interest, Gifts and Entertainment and Corruption and Bribery policies, rather than reporting potential violations.

MedcoEnergi Internal Hotline



Annual Statement of Adherence (SoA) and Conflict of Interest (CoI) Declarations

We identify and manage conflicts of interest by requiring all MedcoEnergi employees to submit annual St atement of Adherence (SoA) and Conflict of Interest (CoI) declarations. We review and record submitted declarations and track the progress of completion.

In 2022, 99.08% of our oil & gas employees and 99.75% of power employees have submitted their SoA, in which passing on the SoA Assurance test is a requisite. The results indicate that our employees have demonstrated a thorough understanding of Our Code and Conflict of Interest Policy & Procedure.

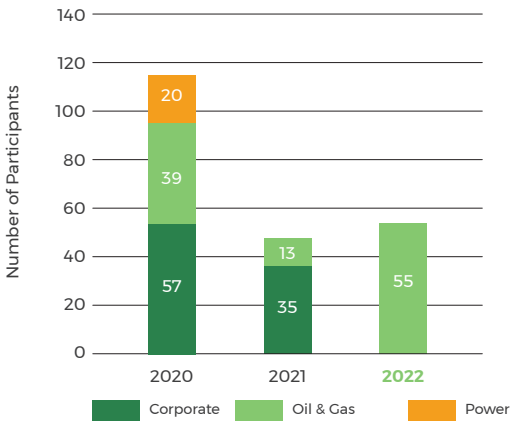
We received 5,363 Conflict of Interest (CoI) declaration submissions, which allowed us to evaluate the CoI risk profiles across ten categories. Based on these profiles, we conducted an in-depth analysis and developed mitigation controls. The insights gained from the CoI risk profile analysis were used to shape our campaign for 2023.

Fraud Risk Assessment (FRA) Workshops

We strive to continually improve our measures to detect, deter and prevent fraud risk through our Fraud Risk Assessment (FRA) workshops. The objective of these workshops is to equip participants with the tools and capacity to identify potential fraud risks within their function or operation organisation.

In 2022, we held two FRA workshops at our Oman and Corridor assets, with 20 and 35 participants respectively. Topics covered included our Anti-Bribery Management Systems (ABMS), fraud risk management and FRA tools to document and manage fraud risks at MedcoEnergi.

MedcoEnergi Fraud Risk Assessment Workshop Participants



Operational Audit

Many of our operations are highly automated, with operators relying on the Industrial Control System for monitoring and controlling operations. With the increasing number of cyberattacks on Operational Technology (OT), it is critical for MedcoEnergi to ensure adequate cybersecurity measures.

In 2022, we enlisted Crowe[1] to conduct an IT Security and Offshore Operation OT audit in our Sampang asset. These audits aim to ensure that potential cyberattacks can be identified, contained and remediated to maintain business continuity under National Institute of Standards & Technology cyber security frameworks.

[1] Crowe is a public accounting, consulting and technology firm.

Internal Audit

We regularly conduct risk-based internal audits of all our operations at least once every three years to provide independent, objective assurance and advice to the MedcoEnergi BoD, corporate functions and business units. This enables us to assess the efficiency and effectiveness of our operations.

In 2022, we reached new heights with the completion of our corporate audits, expanding the scope to our international assets in Mexico and Tanzania.

		2020	2021	2022
Oil & Gas	Corporate	PT Medco Power Indonesia (MPI)	PT Donggi Senoro LNG	Mexico Block 10, Tanzania Block 1 dan 4
	Function	Information Services, Well Operations Onshore	Offshore: OT South Natuna Sea Block B	Offshore: OT Sampang, Corridor: Well Operation, Security and Marine
	Oil & Gas (Domestic and International)	Tanjung Laban Utilization, South Sumatera Block	Sampang, Madura Offshore	South Natuna Sea Block B, Bangkanai
	Partnership with JOB		JOB Tomori, JOB Simenggaris	JOB Simenggaris
	Internal Control Evaluation		COVID-19 handling, Contractor Safety Management System (CSMS), and social programmes	COVID-19 handling, CHSEMS, Marine, Social Programmes
Power	Headquarters	Supply Chain Management (SCM) - PT MPI		
	Subsidiaries	PT Energi Prima Elektrika (EPE), PT Multidaya Prima Elektika (MPE), PT Medco Ratch Power Riau (MRPR), Mitra Energi Batam (MEB), Dalle Energi Batam (DEB)	PT Energi Listrik Batam (ELB), PT Medco Cahaya Geothermal (MCG), PT Bio Jatropha Indonesia (BJI), PT Pembangkitan Pusaka Parahiangan (PPP), PT Tanjung Jati B Power Services	PT EPE, PT MPE, Sarulla Operations LTD, PT MRPR, PT Medco Power Servis Indonesia (MPSI), PT MEB, DEB

Response

We are committed to complying with Our Code and maintaining a Zero Tolerance policy towards bribery, corruption, fraud and other forms of business ethics violation. Once claims and reports are validated, response measures are enacted to ensure appropriate resolution.

In 2022, we received 73 reports of alleged violations through our whistleblowing channels, an increase on the 38 reports we received in 2021. These reports were related to issues including tendering, contract execution, invoicing, inappropriate use of assets, accuracy of financial reporting and other fraudulent acts. Following a rigorous ethical audit, these reports were validated and appropriate actions were taken. MedcoEnergi issued sanctions on 21 employees and contractors, ranging from verbal warnings, reprimand letters, formal written warnings to termination of employment.

Monitoring and Evaluation

Monitoring and evaluating our response to claims or reports assists us in measuring the effectiveness of our actions. This enhances the transparency and accountability of our corporate governance.

Anti-Bribery Management System (ABMS)

Our Anti-Bribery Management System (ABMS) aims to prevent, detect and respond to bribery and corruption. We have continuously strengthened and improved our ABMS since its establishment in 2018.

In 2022, we expanded the ABMS implementation to our international assets. Our Bualuang asset in Thailand successfully obtained the ISO 37001 ABMS Certification, while our Oman asset is expected to obtain the certification in 2024. In addition, our recently-acquired Corridor asset has commenced preparations for obtaining the certification in 2023.

Further details on our corporate-level ABMS journey can be accessed through our MedcoEnergi's website.

ABMS Implementation in Thailand

Our Journey

Our commitment to upholding ethical standards is unwavering as we implement our GCG principles throughout our business, regardless of location. In 2022, our Bualuang asset became the first oil & gas asset in Thailand to obtain ISO 37001 certification.

November 2021
Conducted the Bribery Risk Assessment

May 2022
- Assigned Legal Counsel as Anti-Bribery Complaince Function
- Rolling out memo of MedcoEnergi Thailand's GM to formalize ABMS implementation

September 2022
Conducted an ABMS gap analysis, launched awareness campaigns and completed the first and second Certification Audits.

November 2022
Obtained ISO37001 ABMS Certification

Our Programs and Initiatives

The following highlights our key programmes and initiatives implemented in Thailand:

Prevention

- **100%** of our Bualuang employees signed the **Statement of Adherence**
- Conducted **regular socialisations and awareness campaigns** to internal and external stakeholders on compliance and ISO37001 ABMS
- Establish a **due diligence** process for high-value contracts
- Require Bualuang vendors to establish an **Ethics & Compliance Program** and fully cooperate with our **Vendor Audit**
- 119 out of 195 vendors attended our **2022 Vendor Day** and participated in the vendor compliance session

Detection

- Conducted the first **Internal Audit** ABMS
- **100%** of our Bualuang employees signed the **Conflict of Interest declaration** form
- Completed **three Vendor Audits** to review ABMS maturity and contract compliance
- Established and implemented the **Gift & Entertainment (G&E)** and **Government Hosting (GH) Declarations**

Response

- Improved the accessibility of our **whistleblowing system** (WBS) by including the Thai language
- Raised awareness of disciplinary actions for violations pertaining to Our Code through our **Employee Handbook for Bualuang**

Monitoring and Evaluation

- **81%** of vendors (96 out of 119 vendors) have filled the 2022 **Vendor Compliance Survey**
- Conducted the first **ABMS Maturity Assessment** and the ISO37001 **ABMS Certification Audit**

At MedcoEnergi, maintaining high ethical standard extends beyond our business and operations. We believe in promoting our GCG principles and Corporate Values through our community development programs.

Promoting Business Transparency

In Chumphon province, Thailand, we supported the construction of evening market vendor stalls and buildings for a Blue Crab Bank[1]. Our consultant facilitated the communities on budget planning and reporting to ensure the transparency of our budget allocation and fund transfer to the communities. The facilities were built in public areas displaying MedcoEnergi's brand identity to show the source of funds transparently. Through this program, we are creating the values of business transparency and accountability, fostering trust and cooperation between MedcoEnergi and the local communities.



Blue Crab Bank project at Paknam Chumphon community, Chumphon Province, Thailand

In addition, we collaborated with local communities in hydroponic and organic vegetation at Ban Sairee School and co-op improvement at Wat Hua Grood School in Chumphon. Through these initiatives, we educate the students on the importance of sustainability and environmental stewardship by providing hands-on experience in growing their own products. We also nurture sense of responsibility and integrity through the school's co-op management.



Hydroponic and organic vegetable greenhouse at Ban Sairee School, Chumphon, Thailand

[1] See Chapter 8, Creating Opportunities for Communities, Measuring Our Impact in Thailand, page 117.





School Co-Op at Wat Hua Grood School, Chumphon, Thailand

Continuous Improvement

We shall continuously update our standards, policies and initiatives in line with MedcoEnergi's expanding portfolio. Periodic assessment of our governance systems enhances the effectiveness of MedcoEnergi's leadership and management of our organisation.

In the future, we intend to expand the standardisation of our governance and assurance programme to our international assets.

Governance Assurance in Corridor

At MedcoEnergi, we implement our ethical approach to business consistently across all our assets, both existing and newly-acquired.

In March 2022, our A&IC division commenced the process of aligning MedcoEnergi's governance, policies and management systems with our recently-acquired Corridor asset. As of December 2022, 27 out of 30 identified initiatives had been completed. These initiatives include:

- Hosting a series of **awareness sessions** on our Corporate Values, ethics and compliance and governance assurance processes. These were attended by various business functions from Health, Safety & Environment (HSE), Supply Chain Management (SCM) and Human Resources (HR) Medical
- Facilitating a **Conflict of Interest Risk Deterrence Workshop**
- Expanding our **Ethics Ambassador Programme**
- Completing the **system transition** from the Corridor's Government Travel Expense Requisition (GTR) into MedcoEnergi's own domain
- Adopted third-party compliance by performing vendor audits in Well Operations, Security and Inspection Services
- Conducting an **internal audit** on the Corridor Storage Tanker's Port Facility Security Plan (PFSP) and a peer review of the results

The remaining three initiatives shall be continued as part of the Team Performance Contract (TPC) in 2023.

At Corridor, we retain the Export Control declaration forms in our contract documents with our business partners for specific works and services. In addition, we have extended our compliance measures related to International Port and Ship Security (ISPS) from the Corridor Marine Function to our other offshore assets and partners. This aims to maintain sound practices across our offshore operations.

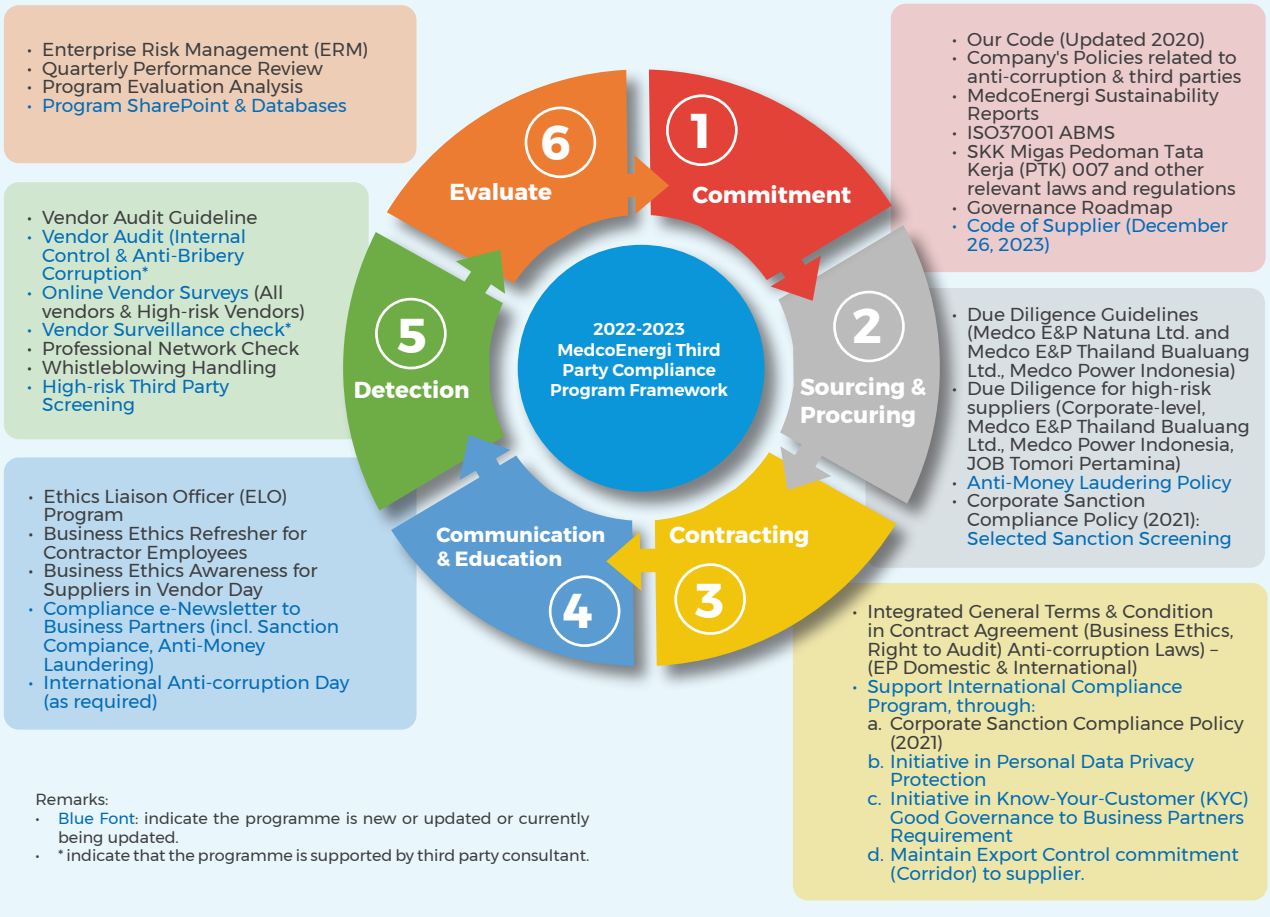
Engaging Third Parties

MedcoEnergi takes a proactive approach to communicating risks to our business partners as part of our third-party risk and compliance management.

In 2021, we reviewed the programme and adopted a risk-based approach to establish a long-term Action Plan aimed at enhancing our Corporate Third-Party Compliance Programme between 2021 and 2024.

In 2022, we established our Code of Supplier and updated our Third-Party Compliance Programme Framework. In developing the Framework, we collaborated with respective functions such as SCM, Legal, Relations & Security and HR, as well as an external consultant.

2022-2023 MedcoEnergi Third Party Compliance Program Framework



Remarks:
- Blue Font: indicate the programme is new or updated or currently being updated.
- * indicate that the programme is supported by third party consultant.

Meeting the Know-Your-Customer (KYC) Requirements from Our Partners

KYC is a due diligence process that our buyers and lenders use to assess and mitigate third-party risks. At MedcoEnergi, we are subjected to the KYC process ourselves and also use it to assess our business partners. As part of our International Compliance Programme in 2022, our A&IC division collaborated with other corporate functions such as SCM, Legal, and CSRM in conducting a series of KYC efforts aimed at ensuring accurate fulfilment of our KYC inquiries. These efforts covered a range of topics including anti-corruption, business ethics, human rights, sanction compliance and Anti-Money Laundering (AML).

Third-Party Risk Detection Initiatives

We have initiatives in place to ensure business transparency and secure stakeholder confidence in our governance when dealing with third parties.

Anti-Bribery and Corruption (ABC) and Internal Control Vendor Audit

At MedcoEnergi, we implement two types of vendor audits: Anti-Bribery and Corruption (ABC) and Internal Control Vendor Audits.

We have conducted 22 ABC Vendor Audits and expanded these to our Bualuang asset in Thailand.

Our Internal Control Vendor Audit takes an enhanced approach to identify the compliance risk, assess the contract compliance and improve the operation and business control. In 2022, we evaluated the internal controls of targeted vendors at the corporate level, as well as our oil & gas domestic assets. Our goal is to expand the Audit to our international assets in the coming years.

No	Category	Asset	2020	2021	2022
1	Oil & Gas	Domestic	17	16	13
		International	–	–	4
2	Power		4	5	4
3	JOB Tomori		–	1	1
	Number of ABC and Internal Control Vendor Audits		**21**	**22**	**22**

As part of integrating human rights considerations into our business, we have conducted a review of our human rights training to provide input for our corporate-level human rights initiatives.

Vendor Compliance Survey

We have continued to improve our Vendor Compliance Survey by aligning the questions with Our Code and ABMS. The objective of this survey is to evaluate the compliance maturity and risk profiles of our vendors. For our oil & gas domestic assets, we have updated the Vendor Compliance Survey to include key topics, including data privacy, human rights, payment to government officials, sanction compliance and AML.

In 2022, we conducted a Vendor Compliance Survey of 379 vendors, covering our oil & gas domestic and international assets, including JOB Tomori.

In future, a Vendor Compliance Survey for each asset will be conducted every two years.

Vendor Day

We emphasise the importance of upholding MedcoEnergi's ethical standards during our Vendor Day. During the event, the A&IC division presents Our Code and ABMS commitments, and highlights third-party compliance risks, covering issues such as human rights, data privacy and AML.

Vendor Day Participants in 2022

Asset	Oil & Gas, Indonesia	Power	JOB Tomori	Bualuang, Thailand
Participants	400 vendors	163 vendors	98 vendors	195 vendors

Whistleblowing Channel

We have whistleblowing channels to protect our employees and the organisation against violations and misconduct. Through these channels, we encourage all parties to raise concerns, particularly in matters relating to fraud, corruption, bribery, CoI, breaches of Our Code and unethical behaviour. We utilise platforms such as our website, telephone, text messages (SMS) and WhatsApp in Indonesian, English, Thai, Arabic and Mandarin.

In 2022, we began utilising the Incident Management system from NAVEX[1] to enhance our existing whistleblowing system. This new system includes advanced features, including point of interest data management, task assignment and advanced analytical reporting to assist us in detecting, responding to and managing our incidents more effectively.

Within our whistleblowing channel, we maintain anonymity to prevent retaliation. MedcoEnergi takes reports of retaliation seriously and will validate them thoroughly and determine the appropriate action. We consider acts of retaliation to be misconduct, which, if substantiated, may result in disciplinary action, up to and including termination of employment. Our whistleblowing reports are processed with the direct oversight of our BoD.

External Ethics Hotline

External Ethics Hotline (managed by appointed independent party)	
Direct Website	https://lapor-medcoenergi.tipoffs.info
E-mail	lapor-medcoenergi@tipoffs.com.sg
INDONESIA	
Phone	0800-150-3020
Text Messages (SMS) & WhatsApp Messenger	(+62-813) 8870-3300
THAILAND	
Phone	1800-010-316
Text Messages (SMS)	(+66) 655986 1887
WhatsApp Messenger	(+62-813) 8870-3300
OMAN	
Phone	80074565
Text Messages (SMS)	(+27) 72 014 4445
WhatsApp Messenger	(+62-813) 8870-3300

To maintain independence, we employ Deloitte Consultants Indonesia (Deloitte) to operate our external whistleblowing channel. Deloitte helps to screen and categorise incoming information and submits reports to the President Director and Head of A&IC Division. MedcoEnergi then conducts an independent investigation and takes the necessary follow-up actions.

Anyone may file a report of a violation via channels listed in the MedcoEnergi's website or via Deloitte website.

[1] NAVEX One is a software solution that aims to streamline risk management by providing actionable strategies for addressing various risk areas, including ethics and compliance, data privacy and third-party risks.

Anti-Coruption Collective Action

As part of our anti-corruption action, MedcoEnergi collaborates with experts and the professional community to promote business integrity in the industry. In 2022, we participated in several anti-corruption events, including:

- A virtual session on "**The Community's Role in Corporate Corruption Prevention**" at *Sekolah Anti Korupsi Aceh* (SAKA), an anti-corruption school in Banda Aceh City, attended by 21 students from the school.
- **A focus group discussion on anti-corruption and business ethics**, held by Business for Social Responsibility (BSR) with Transparency International Indonesia (TII), Indonesia Business Link (IBL), Gerak Aceh, Bandung Institute of Technology, Paramadina University and the Indonesian Corruption Eradication Commission (*Komisi Pemberantasan Korupsi*/KPK). Insights from the focus group discussions were used to develop MedcoEnergi's goals and KPIs on governance and anti-corruption for the next five years (2023-2027).
- A virtual seminar on "**Anti-Money Laundering (AML): Trends and Challenges**" by the Indonesian Petroleum Association (IPA)'s Ethics & Compliance Committee (ECC). The seminar highlighted AML risks and their implications for businesses, and featured keynote speakers from the United Nations Office on Drugs and Crime (UNODC) and Hogan Lovells DNFP[1].
- Participated in the **Indonesian Oil & Gas Auditor Forum** (*Forum Auditor Migas Indonesia*/FAMI) **Summit** in Bali, which focussed on combined assurance, digital forensic audit maturity of internal audit, the assurance map and maturity of internal audit across in the domestic oil & gas industry.
- Participated in the **2022 National Integrity Expo** organised by KPK. As a member of IPA's ECC, we shared our insights and experiences in implementing our ISO 37001-certified ABMS, discussed procurement fraud risks in the industry and emphasised the importance of anti-corruption and sustainability governance.

Public Policy

As reflected in Our Code, we do not support political parties and make neither contributions nor donations to any political party or affiliated organisations wherever we operate.

Nevertheless, we fully respect the freedom of our employees to participate in political processes and support their choice of parties or candidates. Individuals actively participating in political activities, including participating as members of a political party or campaigning for an election, must do so in accordance with our policies and regulations. All employees receive internal communications regarding our stance on donations and contributions before an election takes place.

[1] A company with specialised lawyers, providing legal services on domestic or cross border matters involving Indonesia.

Alignment of Sustainability Initiatives with UN Sustainable Development Goals (SDGs)

The following table maps our sustainability initiatives for strengthening our governance against UN SDG targets. This mapping does not constitute a claim that MedcoEnergi has measured or set targets for host governments in our operational areas regarding the achievement of UN SDGs.

UN SDGs	Relevant Target	Key Initiatives
	4.7	Policies and initiatives on ethics and compliance, fraud risks, human rights, anti-bribery and corruption.
	12.6	Publication of sustainability reporting
	16.3, 16.5, 16.6, 16.7	• Policies and initiatives on ethics and compliance, fraud risks, human rights, anti-bribery and corruption; and • Annual SoA and CoI declarations.
	17.17	External collaborations in promoting business transparency, integrity and anti-corruption measures.

Action Plan

The following action plan will enable us to meet our objectives and continue strengthening our governance. We regularly measure, monitor and report on our progress and performance against these actions. This action plan progress report will be the final one referring to the 2018-2022 Sustainability Roadmap. Moving forward, we will focus on the 2023-2027 Sustainability Roadmap.

	Short-Term Action	Medium/Long-Term Action	Status
Anti-Corruption	Require all employees to sign an annual anti-corruption declaration after completing an online evaluation		Employees have signed an anti-corruption declaration on annual basis (May-June).
	Conduct communication and education training in anti-corruption		Extended communication and education in anti-corruption to Corridor employees in 2022.
	Conduct training for hosting government officials, Fraud Risk Assessments (FRAs) for new employees, as well as refresher sessions for existing employees, and discuss anti-corruption programmes in oil & gas forums		- Conducted training in hosting government officials for MedcoEnergi's employees, including Corridor, in 2022. - Completed FRA workshops in Corridor in November 2022 and Oman in November and December 2022.
	Implement and combine the Ethics Liaison Officer (ELO) Programme across Medco Oil & Gas and prepare the programme and campaign materials for further improvement		Continued implementation of ELO Programme in Medco Oil & Gas and introduced Integrity Champion in Corridor asset in 2022.
	Pilot the Ethics Liaison Officer (ELO) programme for South Natuna Sea Block B, with 30+ officers in each department/ field in 2018	Establish the Ethics Ambassador Programme at all Medco Oil & Gas and Power Assets	The ELO personnel expanded from 27 in 2018 to 76 in 2022, including 16 personnel from Corridor asset.
	Expand the ELO programme at Rimau, South Sumatra Block, Lematang, and Block A with 48 officers in each department/ field in 2019		
	Expand the ELO programme to Sampang, Madura Offshore and Bangkanai and Thailand assets in 2020		
	Expand the ELO programme to Tarakan asset in 2021		
	Expand the ELO programme to Singapore Office in 2022		
	Establish the Compliance Champion programme for Medco Power		- Established in 2019, there are 13 Compliance champions from 10 subsidiaries in 2022. - The Compliance Champion workshop was held in March 2023.
	Expand the ELO Programme to newly acquired asset Corridor in 2023		Assigned 15 personnel from Corridor asset as part of ELO in 2023.

Short-Term Action	Medium/Long-Term Action	Status
Implement and obtain ISO 37001:2016 Anti -Bribery Management System (ABMS) certification pilot projects in South Natuna Sea Block B	Implement and obtain ISO 37001:2016 ABMS certification for all Medco Oil & Gas and Power high-risk assets	
Implement and obtain ISO 37001:2016 ABMS certification for South Natuna Sea Block B		The process started in 2018 and the certification was obtained in May 2019. The 1st Surveillance was completed in April 2020, while the 2nd Surveillance was completed in July 2021.
Implement and obtain ISO 37001:2016 ABMS certification for Procure to Pay (P2P) Process in oil & gas domestic assets such as Rimau, South Sumatra Block, Lematang, Block A, Tarakan, South Natuna Sea Block B		Implementation and certification were obtained in March 2020. The 1st Surveillance was completed in July 2021, while the 2nd Surveillance was completed in June 2022.
Implement and obtain ISO 37001:2016 ABMS certification for Medco Power assets		Certification for Power headquarters was obtained in 2020, with the first surveillance completed in August 2021. Subsequently, the certification for our MEB, ELB, DEB and TJBPS subsidiaries was obtained in August 2021.
Implement and obtain ISO 37001:2016 ABMS certification for JOB Tomori		The certification was obtained in September 2021.
Implement and obtain ISO37001:2016 ABMS certification for Bualuang, Thailand		The certification was obtained in November 2022.
Plan to implement and obtain ISO37001:2016 ABMS certification for Corridor in 2023		Development of ABMS implementation started in 2023, with plans to obtain certification in the same year.
Plan to develop ISO370001:2016 and obtain ISO37001:2016 ABMS certification for Oman in 2024		Development of the ABMS implementation started in 2023 and plans to obtain certification by 2024.
Conduct Anti-Bribery and Corruption Vendor Audits (minimum of 22 vendor audits per year)		Completed 22 vendor audits and conducted the programme in 2022.
• Establish a standard for vendors' Due Diligence process • Complete vendor compliance survey in Indonesia and Thailand	Standardise vendor Due Diligence process for Medco Oil & Gas assets	Established procedures and standards and implementation for South Natuna Sea Block B in 2019.
		Developed and standardised vendor due diligence process for Medco Oil & Gas, Power and JOB Tomori in 2021.
		Currently developing the vendor due diligence database.
		Developed Ethic Compliance Due Diligence Guideline in Bualuang in 2022.
		Completed 379 vendor compliance surveys which consisting of 283 in Indonesia and 96 in Thailand.
Participate in Collective Action to Combat Corruption	Develop the Collective Action Framework and Programme	
Develop the strategy and describe the commitment to Collective Action activities		On-going discussion to develop the strategy and the commitment since February 2022.

	Short-Term Action	Medium/Long-Term Action	Status
	Through the Indonesia Petroleum Association (IPA) Ethics & Compliance Committee (ECC), proactively engage government authorities on anti-corruption practices in the oil & gas industry		In collaboration with IPA, facilitate sharing session from other IPA ECC members.
			In Q1 2022, in collaboration with BSR, facilitated a focus group discussion (FGD) with Transparency International Indonesia (TII), Gerakan Anti Korupsi Aceh (GerAK), Indonesia Business Link (IBL), ITB and Paramadina to gain feedback on MedcoEnergi's Anti-Corruption Program.
			Participated in the Indonesian Oil & Gas Auditor Forum (Forum Auditor Migas Indonesia/FAMI) Summit in Bali, which focussed on focussed on combined assurance, digital forensic audit, maturity of internal audit, the assurance map and maturity of internal audit across the domestic oil & gas industry.
			Participated in the 2022 National Integrity Expo organised by KPK. As a member of IPA's Ethics & Compliance Committee (ECC), MedcoEnergi shared insights and experiences in implementing our ISO 37001-certified ABMS, discussed procurement fraud risks in the oil & gas sector and emphasised the importance of anti-corruption and sustainability governance.
Business Ethics	Carry out Code of Conduct (CoC) Assurance: Statement of Adherence (SoA) self-test		Completed the SoA self-test and COI at the corporate level through the Business Process Management (BPM) system in 2021. In 2022, the process was expanded to the new Corridor asset, utilising data analytics tool to facilitate the monitoring process.
	Automate Conflict of Interest (COI) Deterrence		
	Standardise CoC Practices related to SoA Declaration, Conflict of Interest (CoI) Declaration, Governance & Ethics Policy, Government Hosting Guideline and Gift Entertainment Guideline		Government Hosting Guideline and Gift Entertainment Guideline are currently in progress.
	Ensure alignment between audit and compliance practice at the corporate level	Implement a continuous improvement compliance programme and disciplinary actions related to retaliation clauses in CLA across the group	- Completed the audit and compliance practice alignment at the corporate level. - Medco Oil & Gas CLA has retaliation clauses to reinforce disciplinary actions completed in 2021.
	Reinforce disciplinary actions related to Code of Conduct Violations in the Collective Labour Agreement (CLA) for Medco Oil & Gas assets		

	Short-Term Action	Medium/Long-Term Action	Status
	Finalise and implement a standardised, rigorous compliance programme (covering Prevention, Detection, Response) across MedcoEnergi		Implemented one CoC standard across MedcoEnergi (including the newly acquired assets in Indonesia), ABMS implementation in key overseas assets, and standardised third-party risk management.
Internal Audit	Update Internal Audit Charter		The updated Internal Audit Charter was completed in early 2022.
	Ensure the effectiveness of the 2022 audit plan (>90% audit plan completion) covering key business risks and controls within assets, partnerships and functional areas		Completed audit plans for Oil & Gas at Sampang, Madura Offshore, JOB Pertamina-Medco Oil & Gas Tomori Sulawesi, JOB Simenggaris, and at the corporate level at PT Donggi Senoro LNG.
			Corporate: Mexico Block 10, Tanzania Block 1 & 4.
			Internal Control Evaluation: COVID-19 handling, CHSEMS, Marine, Social Programs.
	Conduct Operational Technology (OT) and Information Technology (IT) Security Audit		Conducted Operational Technology (OT) Security Audit through independent third party using NIST cybersecurity framework in Sampang.
			Conducted Information Technology (IT) Security Audit through an independent third-party.
Sanction Compliance Program	Initiate Sanction risk assessment in Medco Oil & Gas, establish Sanction Compliance Policy (SCP) and implement SCP education and communication at key assets in Medco Oil & Gas and Medco Power	Establish the Sanction Compliance Programme in Medco Oil & Gas and Medco Power asset	SCP researched since 2019.
			Obtained Sanction Compliance Competencies for A&IC personnel in the Sanction Compliance Programme through external training, self-learning during internal workshops and familiarisation with Tools (World Check) and developed the draft Sanction Compliance Policy.
			- Launched Corporate Sanction Compliance Policy in September 2021 and developed organisational capability by conducting the first awareness programme for critical functions at corporate level, and in Oman and Thailand in February 2021. - Established the Sanction Compliance Programme, including facilitating the first OFAC Sanction Risk Assessment at the corporate level, and within our domestic and international assets.
			Completed Sanction Compliance Awareness in Power in October 2022.

	Short-Term Action	Medium/Long-Term Action	Status
Anti-Money Laundering Programme (AML)	Conduct benchmark assessment and research on the AML Programme, and communicate expectations to business partners	Review AML Controls in relevant functions, develop a working procedure to detect ML risks and establish AML policy in 2023	- Published communication and education materials to employees and business partners. - Hosted the AML Trends and Challenge Seminar, with ECC – IPA in collaboration with UNODC and Hogan Lovells.
Human Rights	Develop human rights policy and framework		- Initiated the development of the Human Rights Policy in 2020. - Integrated human rights aspects in MedcoEnergi's Code of Conduct and Community Development and Security Policy.
	Conduct human rights training for relevant employees and business partners		Conducted training for security guards which included a human rights component.
	Conduct a human rights assessment for major assets		- Initiated the corporate level Human Rights Assessment in 2021. The result of assessment will serve as the foundation to develop MedcoEnergi's Human Rights Policy. A&IC initiated internal discussions on human rights-related risks within the organisation. - In 2022, we conducted a corporate-level human rights assessment, and incorporated the findings into our Company's good governance and anti-corruption efforts.
Public Policy	Develop an accountability mechanism to monitor MedcoEnergi's public policy statements versus execution, and agenda versus implementation		Completed the accountability mechanism and reported to BoD in 2021.
Socioeconomic Compliance	Through the IPA Ethics & Compliance Committee, support industry efforts to increase simplification and transparency around social and environmental permits for Medco Oil & Gas assets		Ongoing authority engagement under the National Anti-Corruption Strategy Forum.



Community Development Programme in Block A, Aceh, Indonesia

Chapter #6

Enhancing Our Environmental and Social Safeguards

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67 Health, Safety, and Environment Management System (HSEMS)
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We are committed to achieving our goal of zero environmental and social incidents. We implement MedcoEnergi's Operational Excellence[1] (OE) framework, our Health, Safety and Environment Management Systems (HSEMS) and Social Management System (SMS) to protect our employees, stakeholders and the environment surrounding our operations. We continuously strengthen performance by enhancing our safety culture, stakeholder engagements and our social and environmental stewardship.

Approach, Commitments, and Goals

Our robust OE framework is a systematic and collaborative approach, enabling safe, reliable and efficient operations. This framework provides guidance to minimise negative impacts on our ecosystems and surrounding environment. We monitor our goals and performance in this area. Further details on our OE framework are available in Chapter 10.

Before any projects and operations take place, their impacts on the environment, society, and public health are assessed. They include biodiversity and community impact assessments. It is a regulatory requirement by host governments as part of the permit approval process to identify and manage potential impacts. The assessment incorporates desktop and field studies and includes focus group discussions (FGDs) and stakeholder consultations. We utilise the study outcomes to develop an Environmental, Social and Health Management and Monitoring Plan to mitigate adverse impacts and amplify positive benefits for the surrounding communities and ecosystem.

We are committed to complying with applicable laws and regulations related to our environmental and social performance. We respect and uphold human rights in line with the UN Guiding Principles for Business and Human Rights and the Voluntary Principles on Security and Human Rights (VPSHR). These principles provide an overarching framework to ensure the protection of our employees, assets, facilities, operations and reputation.

In 2022, we strengthened our social performance by completing a corporate-level human rights assessment (HRA) at the corporate level. This assessment enabled us to identify, assess and address salient human rights issues.

Sustainability Assessment

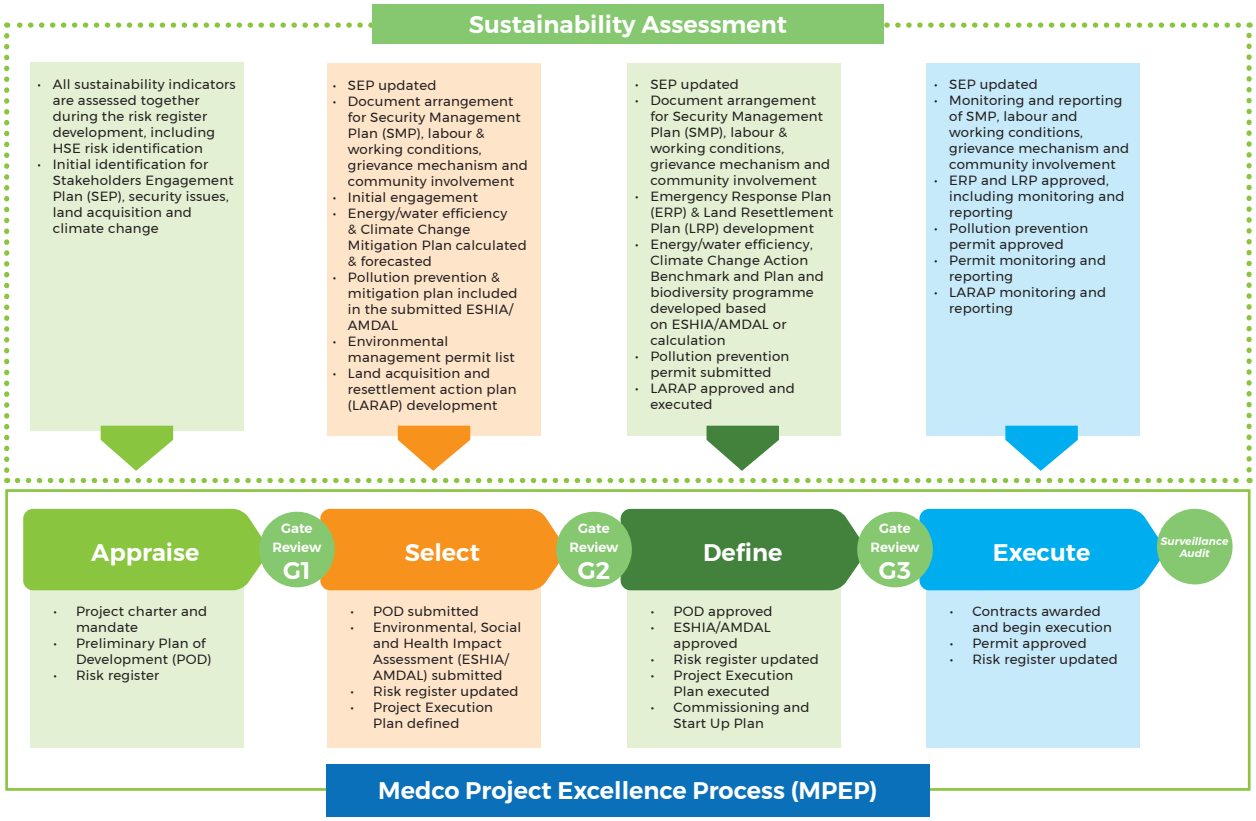
Sustainability Assessment for Projects

Challenges and pressures arising both internally and from stakeholders may pose risks for our projects, potentially compromising their success and sustainability. Consequently, we integrate the Sustainability Assessment into our capital project assurance system, the Medco Project Excellence Process (MPEP). Our Sustainability Assessment focuses on evaluating environmental and social aspects.

The Sustainability Assessment assists us in managing and mitigating potential environmental and social risks. This tool is based on our Sustainability Policy, which allows us to identify and understand risk levels associated with each stage of a project. Through its processes and output indicators, we are able to develop and implement mitigation measures, as well as monitor our performance throughout the project lifecycle. During project execution, we conduct surveillance audits at 10%, 50%, and 90% completion to ensure proper implementation of the Sustainability Assessment.

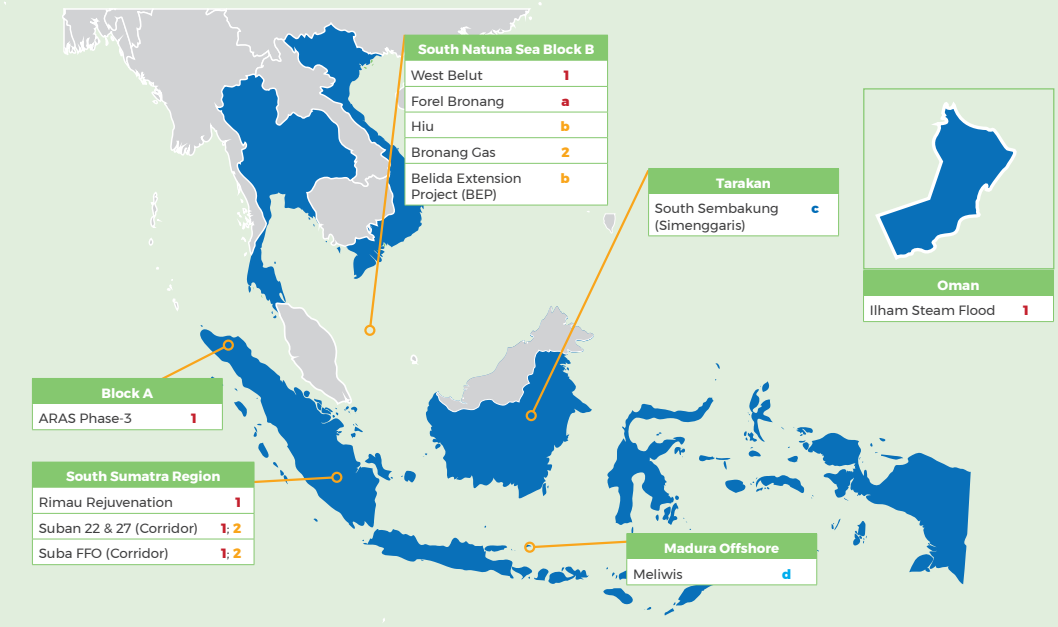
[1] The Operational Excellence framework is a systematic approach to ensure the consistent delivery of HSE, Asset & Operating Integrity (A&OI), Operating Efficiency, and Cost Management performance improvements through organisational learning, knowledge sharing, and application of best practices utilising the Plan-Do-Check-Adjust (PDCA) cycle.

Medco Project Excellence Process (MPEP) and Sustainability Assessment



Below is the progress status of the 12 major projects assessed in 2022.

Mapping of Sustainability Assessment Implementation in Major Projects



Training for Sustainability Assessment of Projects

We conducted a training session for the Sustainability Assessment of Projects in 2022. This training was attended by personnel from our Human Resources (HR), Health, Safety and Environment (HSE) and Relations and Security (R&S) functions. The primary aim of the training was to enhance awareness on sustainability and equip the selected personnel in the MPEP review process as reviewers.





We conducted training for Sustainability Assessment for Projects with personnel in the HR, HSE and R&S functions.

Sustainability Assessment for Operations

In 2022, as part of our commitment to upholding our OE framework, we expanded the Sustainability Assessment process to our operations. The Sustainability Assessment for Operations seeks to identify environmental and social issues, determine mitigation measures and close gaps in existing management systems by developing a Sustainable Operation Strategy. The assessment fulfills the HSE expectations of our OE framework by measuring and monitoring sustainability indicators in our operations. As our next step, we plan to socialise this assessment across various corporate functions.

Environmental and social indicators must be continually monitored and managed. The Sustainability Assessment for Operations evaluates 22 key indicators, as below:

Indicators for Sustainability Assessment for Operations

Human Rights and Community Health, Safety, and Security

- Community health and safety risk identification
- Community Emergency Reponse Plan
- Stakeholder engagement
- Indigenous communities
- Security Management Plan (SMP)

Labour and Working Conditions

- Working conditions and management of worker relationships
- Retrenchmen plan
- Grievance mechanism related to labour

Pollution Prevention

- Air emissions and noise management
- Wastewater or effluent discharge management
- Waste and hazardous waste management

Sustainable Resources and Use

- Water efficiency
- Energy efficiency

Climate Change Mitigation

- Climate change action plan (calculation, forecasting, and mitigation)

Environmental and Biodiversity Protection and Natural Habitat Restoration

- Biodiversity Management Plan

Environmental Impact Assessment

- License to operate
- Environmental and social risk and impacts identification and assessment

Local Community Empowerment

- Land acquisition and involuntary resettlement
- Grievance mechanism for community
- Livelihood Restoration Plan
- Community involvement

Media Communication and Engagement

- Media communication plan

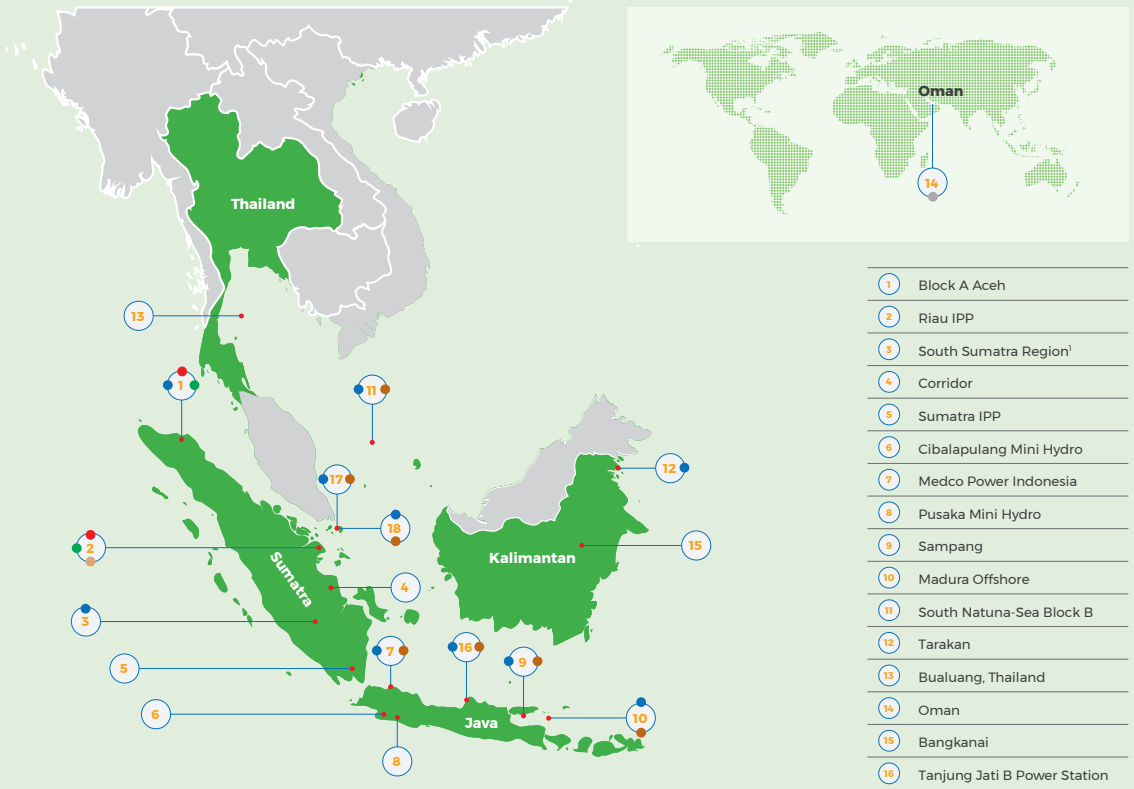
We conducted a pilot assessment in 2022 for Lematang and Sampang. Based on the results, we developed the Operations Guidelines for Sustainability Assessment to help assets secure and improve their sustainability maturity level, as well as establish their Sustainable Operation Strategy.

Health, Safety, and Environment Management System (HSEMS)

By adhering to environmental laws and regulations and international best practices, we can reduce the environmental impact of our operations, foster stakeholder trust and create long-term value. MedcoEnergi implements an integrated HSEMS across our operations to ensure our adherence to applicable environmental laws and regulations. The System is aligned with international best practices and standards, particularly the ISO 14001:2015 on Environmental Management Systems. HSEMS allows us to identify, assess, control and monitor our environmental performance and potential risks across all our operations.

As of 2022, 60% of our assets were ISO 14001:2015 certified. Additionally, Medco Ratch Power Riau (MRPR) and JOB Tomori, adhere to the Asian Development Bank (ADB) Safeguards and International Finance Corporation (IFC) Performance Standards (PS). These assets were developed with financial support from institutions which have adopted the Equator Principles.

Implementation of International Standards



[1] South Sumatra Region Consists of Lematang, Rimau and South Sumatra Block

In all of our oil & gas and power activities, we have allocated the necessary funds to carry out our environmental and social stewardship. These include funds to conduct environmental and social assessment and/or studies, wastewater and solid waste management and other pollution prevention programs. Meanwhile, the total costs incurred for community development programs can be found in Chapter 8 of this report.

In 2022, none of our operational sites experienced any material penalties or sanctions from non-compliance to environmental, social, and economic laws and regulations.

Performance Rating Programme in Environmental Management (PROPER)

The Performance Rating Programme in Environmental Management (*Penilaian Kinerja Perusahaan Dalam Pengelolaan Lingkungan*), also known as PROPER, is an annual assessment of companies operating in Indonesia to evaluate their compliance with national environmental regulations and beyond. This programme is managed by the Indonesian Ministry of Environment and Forestry (MoEF) and covers topics such as emissions, wastewater pollution and hazardous and non-hazardous waste. In addition to environmental regulatory adherence, the programme evaluates beyond compliance aspects through the implementation of environmental management systems, efficiency of natural resource consumption, biodiversity initiatives and Corporate Social Responsibility (CSR).

In 2022, South Natuna Sea Block B and our non-operated asset JOB Tomori received Green PROPER, acknowledging our efforts of going beyond compliance, while the rest of our domestic assets received Blue PROPER, demonstrating our regulatory compliance. Our other non-operated asset, Tanjung Jati B Power Station, received Gold PROPER, the highest rating, highlighting exceptional effort and close community engagement.

The Second Green PROPER Rating for South Natuna Sea Block B

In 2022, South Natuna Sea Block B received its second consecutive Green PROPER rating from the MoEF. This recognition was accorded after an evaluation of in excess of 3,200 companies from various industries.

The Gas Fuel Reduction programme, which focusses on reducing emissions and promoting sustainable practices, was pivotal to this achievement. This programme involved optimising the operations of large-capacity power equipment, reducing gas flares and recycling non-infectious medical mask waste. Our environmental management system focusses on promoting environmental balance, climate change control and community empowerment in areas of operation.

To continually enhance its sustainability performance, South Natuna Sea Block B conducts environmental monitoring and uses the results to reduce its operations' impact.



Our Belanak facilities in South Natuna Sea Block B

Environmental Management and Monitoring Programme

As part of our environmental management system, we conduct environmental management and monitoring programmes in our operating assets to improve our sustainability performance, comply with regulations and enhance our overall impact management.

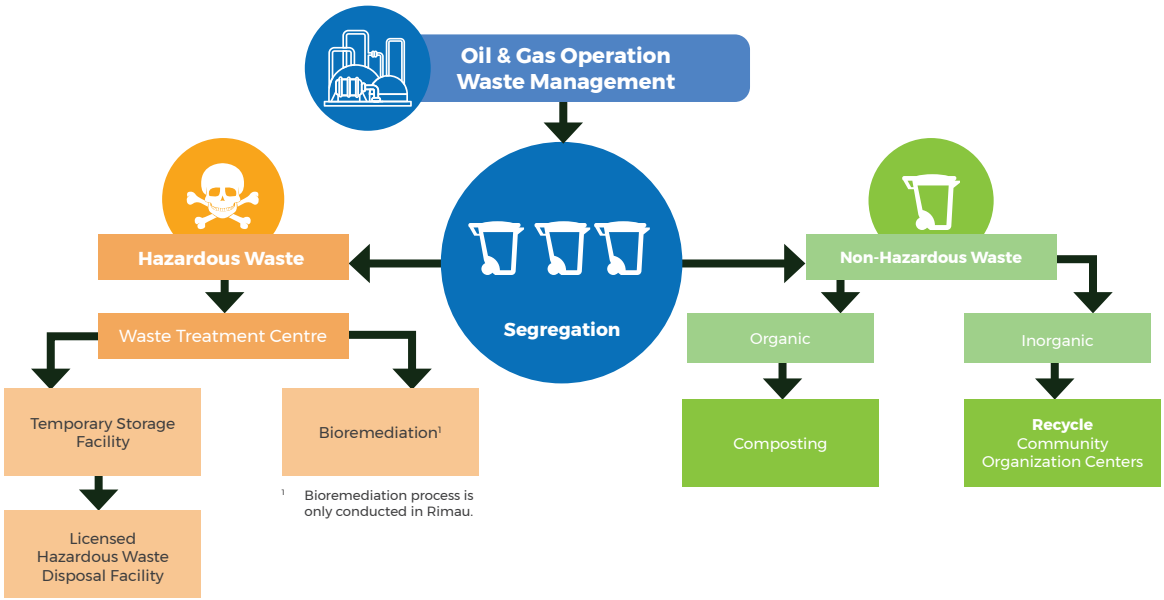
Restatement of Water, Waste and Biodiversity Data

Following the Corridor acquisition, we incorporated data from this asset into our non-hazardous and hazardous waste, oil spills, water and revegetation data for 2020 and 2021. In addition, we re-calculated our water withdrawal figures for 2020 and 2021 for our Madura Offshore asset to include cooling water withdrawal. This revised calculation resulted in an increase in environmental indicators.

Waste Management

We implement an integrated waste management approach covering waste segregation, disposal and treatment using the Best Available Technologies (BAT). Several of our assets have received the ISO 14001:2015 certification (refer to page 67), encompassing waste management within its audited scope.

Waste Management at MedcoEnergi



[1] Bioremediation process is only conducted in Rimau.

Non-Hazardous Waste

In managing waste from our operations, MedcoEnergi follows the Reduce, Reuse and Recycle (the 3Rs) principles. Our non-hazardous waste is segregated into organic and inorganic waste, with the former sent to composting centres and the latter to recycling centres.

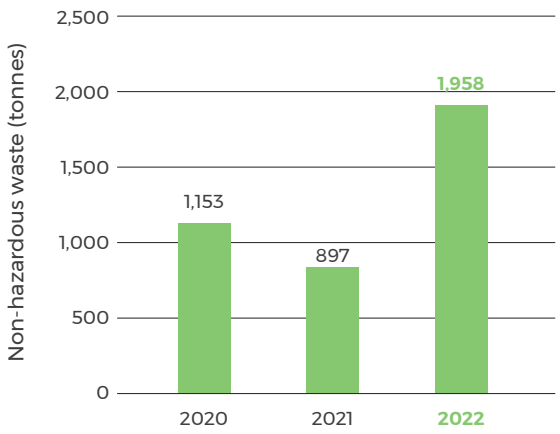
In 2022, our oil & gas assets generated 1,958 tonnes of non-hazardous waste, more than double generated the previous year. This was primarily due to the increased personnel involved in the acid fracturing process[1] at Lematang, as well as our new

[1] Acid fracturing involves injecting an acid solution at high pressure into a well during oil & gas exploration. This process results in an increase in waste generated due to the high concentration of contaminants in the flow-back liquid, requiring appropriate disposal methods.

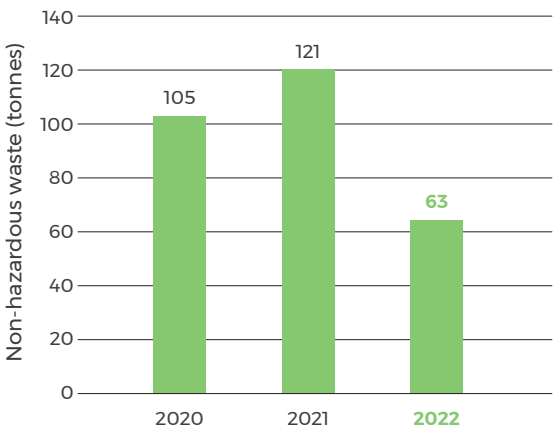
approach to waste reporting in Oman, where all non-hazardous waste is now recorded regardless of the disposal facility.[1] We diverted 103 tonnes of non-hazardous waste through our composting and 3R programme. Our power assets reduced non-hazardous waste generation to 63 tonnes, a reduction of 48% from the 121 tonnes generated in 2021. This was due to reduced project activity at the MRPR Gas IPP which entered operations in February 2022.

Oil & Gas and Power Non-Hazardous Waste[2]

Oil & Gas Non-Hazardous Waste



Power Non-Hazardous Waste



Reducing Plastic Use

Through campaigns and socialisations in several assets, we actively encourage our employees to reduce their consumption of single-use plastic by utilising eco-friendly alternatives. Our employees are encouraged to use tumblers instead of plastic bottles, reusable lunch boxes and eco-bags.







Campaigns to reduce the use of plastic.

[1] Prior to 2022, our waste reporting was limited to waste disposed at our client's waste facilities in Oman. In 2022, we broadened our reporting scope to include all waste generated and disposed of.

[2] Non-Hazardous, Hazardous Waste and Oil Spill in Oil & Gas in 2020-2022: International: Thailand and Oman; Domestic: Block A, South Natuna Sea Block B, Corridor, South Sumatra Block, Rimau, Lematang, Madura Offshore, Sampang, Bangkanai, Tarakan.
Non-Hazardous and Hazardous Waste in Power in 2020-2022: Medco Ratch Power Riau (MRPR), Mitra Energi Batam (MEB), Dalle Energi Batam (DEB), Energi Listrik Batam (ELB), Multidaya Prima Elektika (MPE), Energi Prima Elektrika (EPE), Bio Jatropha Indonesia (BJI), Pembangkitan Pusaka Parahiangan (PPP).

Composting Organic Waste

In operational areas, we transport organic waste to the Waste Treatment Centres (WTCs) to be sorted, weighed and composted. Remaining waste which cannot be composted is sent to the nearest landfill.

Through composting, Block A and Rimau have diverted 3.8 and 3.1 tonnes of waste from disposal, respectively. Tarakan has composted 0.6 tonnes of waste through the Waste Industrial Park (*Taman Industri Sampah Kegiatan Ekonomi Berbasis Pengelolaan Lingkungan*/TIS-KEBAL), as part of its long-standing CSR programme with the local authorities. Our Corridor asset has a practice in place of composting organic waste in three of its nurseries, Keri, Grissik and Suban Camps.

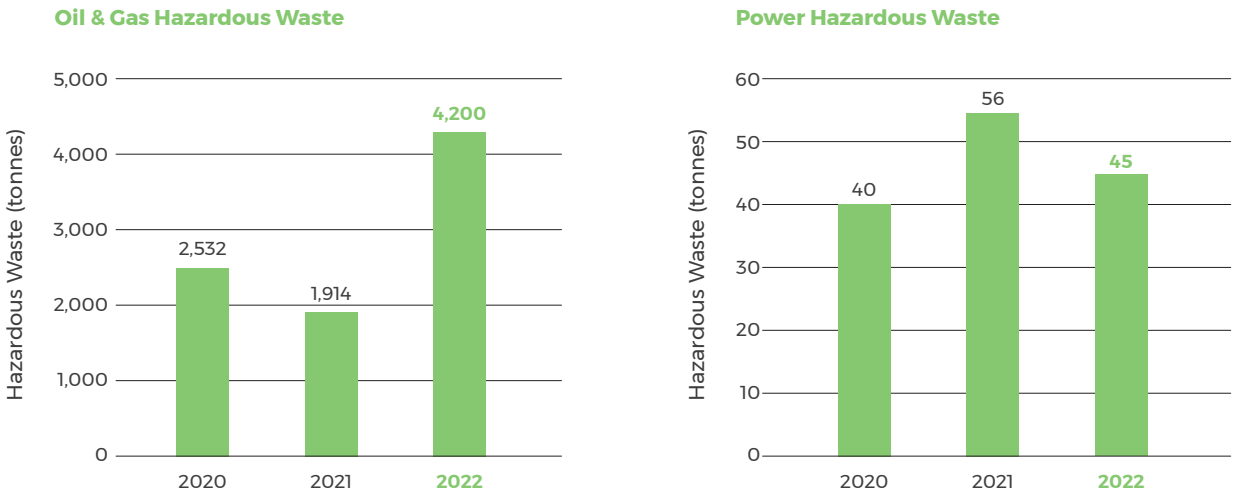
Hazardous Waste

We manage our hazardous waste[1] by engaging licensed third-party disposal companies. Our hazardous waste accounts for 68% of our total waste.

In 2022, our oil & gas assets generated 4,200 tonnes of hazardous waste, approximately double that generated in 2021. This increase is primarily due to the acid fracturing process in Lematang, and impurities from drilling cuttings of new wells in Bualuang and South Sea Natuna Block B.

Our power assets generated 45 tonnes of hazardous waste, a 20% reduction from 2021 levels, due to reduced project activity at the MRPR Gas IPP which entered operations in February 2022.

Oil & Gas and Power Hazardous Waste



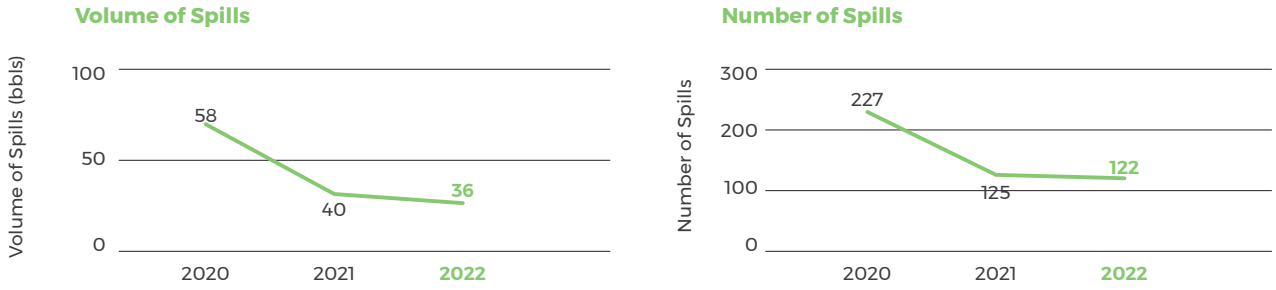
[1] Hazardous waste is waste containing substance, energy and/or components which, due to their properties, concentration and/or amount, may directly or indirectly pollute and/or damage the environment and/or harm the health of humans or other living creatures' life in the area or waste designated 'hazardous' or some similar term under the applicable regulatory requirements of the country where MedcoEnergi operates.

Oil Spill Incidents

We continuously explore and implement initiatives to lower our oil spill incidents. Across our assets, the most common causes of oil spills are pipeline corrosion and vandalism. As a preventative measure, we continue our pipeline replacement initiatives to reduce spills.

In 2022, the volume and number of oil spill events was lower than the previous year, by 12% and 0.02%, respectively.

Volume and Number of Oil Spills



Our oil-producing assets have oil spill management in place, covering programmes including:



Our oil & gas assets in Indonesia are members of the Oil Spill Combat Team (OSCT) Indonesia, a private oil spill response organisation with bases throughout the country. Membership of the OSCT assists us in improving our spill preparedness and response capacity through access to equipment, experts and competency training. In addition, our Bualuang asset in Thailand is a longstanding member of the Oil Spill Response Limited (OSRL)[1] and the Thailand Oil Industry Environmental Safety Group (IESG)[2]. In collaboration with OSCT Thailand, Bualuang has established a preventive maintenance programme designed to manage the risk of oil spills.

At Rimau, we have implemented measures to decrease soil contamination caused by oil. These include periodic pipe replacement based on inspection results. We have also increased the efficiency of oil and oil filter replacements through preventive maintenance, doubling their service life from 12,000 hours to 24,000 hours. These efforts resulted in a reduction of 127 tonnes of hazardous waste at our Rimau facility in 2022 compared with 2021.

[1] OSRL is an international organisation providing a wide range of services in oil spill preparedness and response.
[2] IESG is a cooperative dedicated to developing Thailand's incident prevention capabilities and its ability to respond to oil spills and emergencies related to oil industry operations across the country.

Water Management

Our HSE Policy drives us to manage water utilisations in our operations. Water is predominantly used for our supporting offices, with a small portion required for our oil & gas production activities. We implement water recycling to lower our consumption of treated water through reinjection technology[1] and rainwater harvesting in our assets.

In 2022, our oil & gas assets withdrew 7,025,400 m^3 of water, a slight reduction from the previous year. The water withdrawal figures for our oil & gas assets between 2020 and 2021 have been restated to incorporate cooling water in Madura Offshore, which accounted for approximately 87% of total water withdrawal from 2020 to 2022.

Water withdrawal for our power assets was 76,500 m^3, reflecting a 109% increase from 2021. This was primarily due to the fact that our power assets had returned to normal operations after experiencing a period of low demand in 2021. The water withdrawal figures for our power assets in 2021 have been restated to incorporate all fresh water withdrawal resources in MEB.

Oil & Gas and Power Water Withdrawal[2]



Managing our Produced Water

As a result of our exploration and production activities, we produce wastewater commonly known as produced water. At MedcoEnergi, we follow a three-pronged approach in managing our produced water. The water may either be discharged into a water body after treatment, injected back into an injection well or managed by other entities.

Our produced water is treated at our Wastewater Treatment Plants (WWTPs) to lower the concentration of hydrocarbons, chemicals and hazardous substances to levels in accordance with relevant regulations and standards.

In Oman, our partner (Petroleum Development Oman/PDO) manages the treated produced water, whereas in Bualuang, Corridor and other onshore operations we implement a re-injection strategy. In our remaining assets, water is discharged into the sea or other water bodies after careful assessment to meet the required parameters.

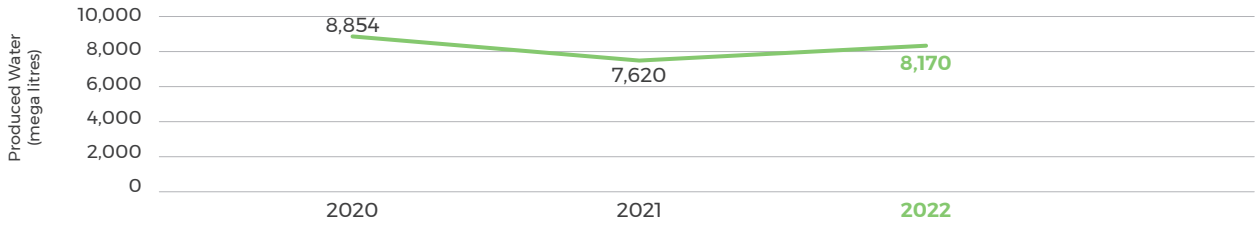
In Lematang, we have been operating an on-site Produced Water Treatment (PWT) facility since 2011. This facility addresses

[1] Reinjection technology involves returning the water produced during oil & gas production to the ground by injecting it into injection wells. This injected water increases the formation pressure, leading to improved hydrocarbon recovery.

[2] Water Withdrawal in Oil & Gas in 2020-2022: International: Thailand and Oman; Domestic: Block A, South Natuna Sea Block B, Corridor, South Sumatra Block, Rimau, Lematang, Madura Offshore, Sampang, Bangkanai and Tarakan.
Water Withdrawal in Power in 2020-2022 included MRPR, MEB, DEB, ELB, MPE, EPE, BJI, and PPP.
Water Withdrawal in Madura Offshore in 2020-2021 was restated to include cooling water.

the challenges associated with our current process of upgrading the existing water injection facility in our Harimau field.

Oil & Gas Produced Water



Managing our Waste Water

Across the majority of our assets, domestic wastewater is treated at our WWTPs. We monitor effluents to ensure compliance with regulations mandated by the MoEF and to maintain levels lower than the Threshold Limit Value (TLV) before discharging.

To reduce our reliance on groundwater and maintain water supply for production, we employ Reverse Osmosis (RO) technology to purify seawater at our facilities in Corridor, South Natuna Sea Block B, Madura Offshore. This process involves filtering seawater through a permeable membrane to desalinate and obtain clean water suitable for domestic use at our offshore platforms and storage tanks. We conduct monthly monitoring of effluents to ensure safety before usage.

At Lematang and Madura Offshore, we have installed an automatic continuous wastewater monitoring system known as SPARING[1], in compliance with regulations set by the MoEF. To further promote water efficiency, we have implemented several initiatives, including the utilisation of Reverse Osmosis (RO) concentrate and the recirculation of our WWTP-treated water as a chemical solvent.

Air Emissions Management

MedcoEnergi's oil & gas' air emissions consist of nitrogen oxides (NO_x), sulphur oxides (SO_x), volatile organic compounds (VOCs) and particulate matters (PMs), while air emissions from our thermal power plants consist of nitrogen oxides (NO_x), sulphur oxides (SO_x), and particulate matters (PMs). Our air emissions performance from 2020 to 2022 is available in the 2022 GRI Performance Data.

Our Environmental Management and Monitoring Plans serve as a framework for our management and monitoring systems concerning air emissions. To ensure compliance with air emission thresholds for upstream oil & gas operations, we adhere to the Indonesian Ministry of Environment and Forestry (MoEF) Regulation No. 11 Year 2021 for internal combustion engine emissions, MoEF Regulation No. 13 Year 2009 for emissions from sources other than internal combustion engines (such as boilers) and local regulations. For Thailand assets, we adhere to Thailand's Notification of the Department of Labor Protection and Welfare on Limitation of Hazardous Chemical Concentration in 2017. Additionally, we refer to MoEF Regulation No. 15 Year 2019 for the air emission threshold of thermal power plants.

[1] *Sistem Pemantauan Kualitas Air Limbah secara Terus Menerus dan Dalam Jaringan* (Continuous Wastewater Quality Online Monitoring).

Biodiversity Conservation

MedcoEnergi is committed to safeguarding the environment through our efforts in supporting biodiversity conservation. Our conservation initiatives go beyond regulatory requirements, with a focus on activities including tree replanting and the conservation of endangered species.

Biodiversity and ecosystem protection are incorporated into our HSE Policy, which includes the protection of natural species and protected areas. In addition, we conduct Environmental Impact Assessments (*Analisis Mengenai Dampak Lingkungan Hidup*/AMDAL), as required by Indonesian regulations, involving conducting a biodiversity assessment and implementing processes to prevent land degradation during the opening of new operational areas. Below is a summary of our replanting activities[1]:

Planted Area in 2020-2022 beyond regulatory requirements

48 hectares

Planted Area in 2020-2022 as per Forest Area Usage Approval/PPKH (formerly Borrow-Use Forestry Permit/IPPKH)

766 hectares

Our investment, in USD, in replanting activities for both programmes is as below:

Investment in Replanting	2020	2021	2022
Revegetation beyond regulatory requirements	29,703	30,890	144,821
Revegetation as per Forest Area Usage Approval/PPKH (formerly Borrow-Use Forestry Permit/IPPKH)	535,661	526,195	492,800

Tree and Mangrove Planting Initiatives

In 2022, MedcoEnergi conducted tree and mangrove planting initiatives across our assets. These initiatives were deployed to promote biodiversity in land and coastal areas, aligning with SKK Migas' national tree-planting campaign.

Beyond Regulatory Requirements

Block A

8,468

trees planted for shade in green open spaces, reforestation and landslide prevention surrounding Block A

Tarakan

1,835

500 mangroves, 1,300 eucalyptus and 35 terap (*Artocarpus odoratissimus*) trees

PPKH

Bangkanai

7,236

trees planted to rehabilitate the watershed in Ambungan Village

[1] Replanting activities include Jakarta Office, Block A, South Natuna Sea Block B, Corridor, South Sumatra Block, Rimau, Lematang, Madura Offshore, Sampang, Bangkanai, Tarakan, Multidaya Prima Elektrindo (MPE), and Pembangkitan Pusaka Parahiangan (PPP). The reflected acreage does not indicate the actual planted area of beyond regulatory requirement programs given that these programs only record the number of trees planted but not necessarily the revegetated areas.

As part of our effort to surpass regulatory requirements, our assets have conducted the following activities:



Madura Offshore collaborated with the Sumenep Regency Government in East Java to plant 753 trees, including cherry, tabebuia, frangipani and matoa trees.



South Natuna Sea Block B initiated a community empowerment and environmental control programme by planting approximately 2,500 mangrove seedlings on Matak Island, Anambas Islands Regency.

This effort is expected to contribute to environmental control and prevent natural disasters resulting from climate change.



Corridor participated in the 2022 Upstream Oil & Gas Reforestation programme, in collaboration with SKK Migas, Production Sharing Contractors (PSC) and the Provincial Government in South Sumatra.

This programme aims to preserve the Sriwijaya Botanical Gardens, Ogan Ilir Regency, by planting 5,530 trees in the area.

When selecting plants for the Forest Area Usage Approval/PPKH (formerly IPPKH), we consider factors influencing plant growth and survival. These include environmental conditions including rainfall, temperature and climate in the respective areas, as well as soil suitability for plants. We also take into account endemic plants to maintain the areas' biodiversity and plant success rate, selecting species with a high success rate in specific locations.

Transplanting Coral Reefs

In 2022, JOB Tomori continued its commitment to restoring the coral reef ecosystem by implementing the hanging reef method to create fish habitats. This innovative method proved to be more effective than the bottom shelf method, resulting in a 100% seedling survival rate. Consequently, the area of coral reefs expanded to 11.12 km^2, making Makakata Beach in Central Sulawesi a new diving destination and a potential underwater laboratory for student research.





Restoring the coral reef ecosystem using the hanging reef method.

Environmental Management at Corridor

Water Management

We treat our wastewater responsibly in accordance with applicable regulations. In minimising impact on the environment, we manage produced water[1] by injecting it into licensed injection wells.

Our domestic wastewater is subjected to a series of biological treatments in our Waste Water Treatment Plans (WWTP). We conduct monthly sampling by a certified third-party laboratory and report the monitoring results to the relevant authorities.

Similarly, wastewater generated in the Corridor Storage Tanker (CST), used for transporting oil and condensate, is treated based on its type. These treatments involve a sewage treatment plant (STP), crusher tanks or filtration.

Waste Management

We manage our non-hazardous waste in one of four ways, depending on the type: incineration, composting, returning it to the vendor or delivering it to landfills. As for hazardous waste, in addition to relying on licensed third-party disposal companies, we implement measures to reduce its generation, including:

1. Avoiding equipment containing asbestos and ceramics.
2. Switching to more durable materials for filter beds and media.
3. Repurposing hazardous waste as fuel for cement kilns.
4. Using lamps without mercury or other toxic heavy metals.

Biodiversity

Corridor has implemented watershed rehabilitation activities in a 379.12-hectare area, in accordance with the Forest Area Usage Approval/PPKH (formerly Borrow-Use Forestry Permit/IPPKH). This initiative covered 190.34-hectares of Meranti Sungai Jernih Protected Forest in the Musi Banyuasin Regency and 188.78 hectares in the Bentayan Wildlife Reserve in the Banyuasin Regency. These rehabilitation efforts reported an 85% growth success rate[2] for the Meranti Sungai Jernih Protected Forest and 90% for the Bentayan Wildlife Reserve. As of November 2022, Corridor had completed its PPKH (formerly IPPKH) obligation and the rehabilitated areas were turned over to the government.

In addition, Corridor exceeded compliance by conducting additional watershed rehabilitation activities in a 14.68-hectare area.

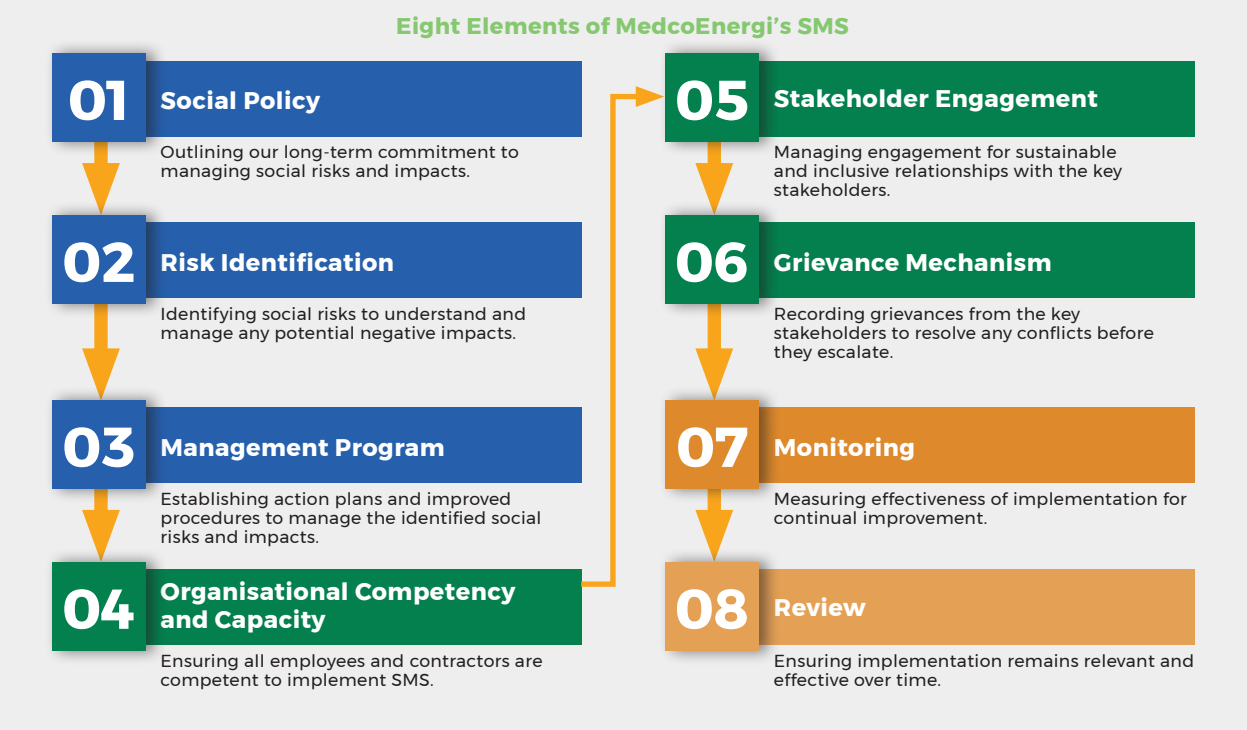


Composting activity in Corridor, Indonesia, produces compost and liquid fertilizer.

[1] Produced water is water that is produced as a by-product during the extraction of oil & natural gas.
[2] A successful growth rate is defined as a success rate of at least 75% growth from the initial planting based on the Indonesian Ministry of Environment and Forestry Regulation No. 23/2021 regarding Forest and Land Rehabilitation Implementation.

Social Management System

In alignment with our commitment to social development, we have implemented our Social Management System (SMS) to address and mitigate social risks and their impacts[1]. Our SMS comprises eight elements, each with indicators to measure progress and maturity level. This approach ensures ongoing management and improvement of our social performance, following the Plan-Do-Check-Adjust (PDCA) process.



SMS Implementation

We have conducted capacity-building workshops to equip the SMS team with the necessary knowledge and skills to implement the system effectively. Key topics covered during these workshops include:

- Social compliance management systems and auditing techniques in accordance with ISO 19011:2018 Guidelines for auditing management systems.
- Fundamentals of the MedcoEnergi Sustainability Policy and measurements of leading and lagging indicators.
- Social risk management.

In socialising the SMS to our employees, we have utilised communication channels, such as newsletters, e-mails, quizzes, posters and booklets. In 2022, we extended our socialisation to Corridor's management and our related functions.

[1] We define social risk as a combination of the probability of hazard occurrences related to our employees and the surrounding community and the severity of impacts resulting from such occurrences. Social impact refers to any change, potential or actual, affecting our employees and the surrounding community as a result of MedcoEnergi's business activities and operations.





We have conducted SMS capacity-building for our asset teams which included simulations and case studies to ensure the practical application.

SMS Monitoring

As part of PDCA process, we conducted the second round of SMS evaluation in 2022. Utilising the IFC Standard's Maturity Level, our review determined that our domestic assets[1] have achieved Level 3 out of 5, indicating that although the systems approach has been adopted, consistency in its development and implementation is still required. Meanwhile, our Bualuang asset in Thailand is still in the system development stage with limited implementation.

Our target for 2023 is to reach a Maturity Level one level above the last monitoring result. To achieve this goal, each asset will be expected to develop a strategic plan for its SMS Implementation, outlining key action plans and target timelines.

In addition, we intend to launch initiatives to:

- Increase internal awareness of our social policies
- Update and communicate our grievance mechanism at our oil & gas assets
- Monitor and analyse grievances from communities through our newly-launched Integrated Dashboard

These actions align with our updated Sustainability KPIs and demonstrate our dedication to maintaining our social stewardship.

[1] South Sumatra Region (South Sumatra Block, Rimau, and Lematang), Bangkanai, Tarakan, South Natuna Sea Block B, Sampang and Madura Offshore.

Alignment of Sustainability Initiatives with UN SDGs

The following table maps our sustainability initiatives for enhancing environmental and social safeguards against UN SDG targets. This mapping does not constitute a claim that MedcoEnergi has measured or set targets for host governments in our operational areas regarding the achievement of UN SDGs.

SDG	Rrelevant Target	Key Initiatives
	3.9	- Health, Safety and Environment Management System (HSEMS) - Sustainability Assessment - Environmental compliance
	6.3, 6.4, 6.6	- Wastewater monitoring and management - Water conservation and efficiency - Seawater and sediment analysis
	12.2, 12.4, 12.5, 12.6	- Waste and effluent management, hazardous and non-hazardous - Environmental data reporting
	14.1, 14.2, 14.5, 14.b	- JOB Tomori coral reef transplantation programme - Oil spill reduction efforts
	15.1, 15.2, 15.4, 15.5	- Revegetation programmes - Biodiversity conservation and education initiatives

Action Plan

The following action plan will enable us to meet our objectives and continue enhancing environmental and social safeguards. We regularly measure, monitor and report on our progress and performance against these actions. This action plan progress report will be the final one referring to the 2018-2022 Sustainability Roadmap. Moving forward, we will focus on the 2023-2027 Sustainability Roadmap.

	Short-Term Actions	Medium- to Long-Term Actions	Status
Environmental Compliance	Ensure that new major projects comply with relevant national legislation and international standards	Continue implementing the Health, Safety and Environment Management System (HSEMS) at all assets	HSEMS has been implemented, monitored and improved continuously at all assets.
		Obtain ISO 14001:2015 certification for Block A (in addition to Rimau, Lematang, South Sumatra Block, Tarakan, and South Natuna Sea Block B)	Block A obtained the ISO 14001:2015 EMS certification in 2022.
		Conduct baseline analysis and determine opportunities for improvement to further lower GHG intensity	- Benchmarking study and baseline analysis completed - GHG reduction and energy efficiency opportunities identified - Emission reduction projects have been initiated and implemented, for example, flared gas utilisation in Tarakan and the optimisation of fuel gas consumption in South Natuna Sea Block B.
		Conduct baseline analysis and determine opportunities for improvement to further lower energy intensity	
		Conduct baseline analysis and determine opportunities for improvement to further lower water consumption and waste generation (hazardous and non-hazardous)	
		Obtain Green PROPER ratings for all new assets within four years	Identifying and assessing challenges and opportunities
Environmental Performance	Disclosure of all assets' GHG and environmental performance data.	Calculate Scope 1 GHG emissions for all assets	- Standardised methodology for GHG emission accounting, including emission sources, calculation and emission factors, in alignment with international standards - Disclosed Scope 1 and 2 GHG emissions, energy consumption, water consumption, waste and hazardous waste generated and waste utilisation and recovery to Ministry of Environment and Forestry (MoEF), SKK Migas, local environmental agencies and in the Sustainability Report.
		Calculate energy consumption for oil & gas assets	
		Calculate water consumption for oil & gas assets	
		Calculate hazardous and non-hazardous waste generation for oil & gas assets	
		Disclose waste utilisation and recovery	
		Disclose low-pressure gas utilisation	Low-pressure gas utilisation has been included in the GHG emissions accounting, as part of Scope 1 combustion sources.

	Short-Term Actions	Medium- to Long-Term Actions	Status
Social Management System	Develop a grievance mechanism manual and support business processes	Socialise and implement grievance mechanisms for internal and external parties	Monitored the received, closed and overdue grievances across all Medco Oil & Gas assets and Medco Power subsidiaries
	Develop and implement stakeholder engagement plans (SEPs) for all assets		Oil & gas assets: - Developed the 2022-2026 Strategic SEP, 2022 Work Plan and 2022 SEP for each asset - Developed Social Impact Guidelines to ensure implementation of stakeholder engagements - Developed tactical SEPs for critical projects/issues - Developed an online Integrated Dashboard system to record engagement activities at each asset Power assets: - Developed SEP for Sumbawa Solar PV (Medco Power Solar Sumbawa/MPSS)
	Develop Social Management System (SMS) for all assets		- Site-specific SMS implementation documents are in place for all oil & gas assets - Conducted SMS socialisations at Corridor - Completed SMS monitoring for domestic oil & gas and Thailand assets - Completed capacity-building workshops for SMS teams at oil & gas assets - Implemented SMS at MPSS



Sumbawa PV Facilities, West Nusa Tenggara, Indonesia

Chapter #7

Realising Our Climate Aspirations

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102 Alignment of Sustainability Initiatives with UN Sustainable Development Goals SDGs

We recognise the need to intensify our efforts to address climate change and accelerate energy transition. To elevate our performance, we issued climate interim targets in 2022. These targets demonstrate our accountability for climate action and reflect our commitment to supplying sustainable energy and natural resources for our stakeholders.

Approach, Commitments, and Goals

MedcoEnergi strives to be integral to the solution to climate change. We have climate aspirations to achieve net zero for Scope 1 and Scope 2 emissions by 2050 and for Scope 3 emissions by 2060. Our Climate Change Strategy incorporates guiding principles to mobilise climate action and meet these aspirations. It aligns with our vision and mission, the framework of our sustainability policy, the Paris Agreement, and the Nationally Determined Contributions (NDCs) of the host governments in the countries where we operate.

We are expanding our natural gas portfolio and developing renewable energy sources to support the realisation of the region's development ambitions and United Nations Sustainable Development Goals (UN SDGs).

Our Climate Change Strategy was developed based on the findings of our climate scenario analysis, which identified key climate-related risks and opportunities and their impact on our business in the long-term, based on the selected scenarios. The Strategy has three main pillars, which ensure a holistic approach to tackling the climate challenges: Emissions Reduction, Transition to Low Carbon Energy, and Emerging Physical Climate Risk Management. For each pillar, we have defined specific focus areas and key initiatives for our business, leveraging our capabilities, technological expertise, and workforce to achieve our climate aspirations.



Sumbawa PV Facilities, West Nusa Tenggara, Indonesia

MedcoEnergi's Climate Change Strategy

VISION
To be the Energy Company of Choice for our investors, shareholders, partners, employees and the communities where we operate

MISSION
To build long-term value with a portfolio of sustainable energy and natural resource business

CLIMATE ASPIRATION
Achieve Net Zero for Scope 1 and Scope 2 Emissions by 2050 and Net Zero for Scope 3 Emissions by 2060

	Managing Transition Risks				Managing Physical Climate Risks	
STRATEGY	GHG Emissions Reduction		Transition to Low Carbon Energy		Emerging Physical Climate Risk Management	
FOCUS AREA	Technologies & Best Practice	Carbon Removal & Offset	Growing Gas as a Transition Energy Source	Growing Renewables Portfolio	Climate Adaptation	Climate Design
KEY INITIATIVES	- Reduce flaring, venting and fugitive emissions - Reduce energy use & intensity, adopt renewable energy sources - Collaborate along Supply and Value Chains to improve efficiency and emissions disclosure	- Carbon sequestration through nature-based solutions - Explore CCUS* and CCS* opportunities	- Expand natural gas production portfolio - Evaluate opportunities to invest in LNG to Power	- Expand renewable power portfolio - Assess feasibility to adopt emerging renewable technologies - Support initiatives for adoption of green solutions	- Assess quantitative financial impact of climate-related physical risks - Implement systems for regular monitoring of climate hazards and their impacts	- Continue physical risk and biodiversity assessments on new investments - Integrate climate risk assessment into future engineering designs

ENABLERS

Governance
- Board commitment and oversight
- Integration into business plans and performance management
- Staff engagement and capacity building

Data Management
- Improve Emission Data Management System
- Improve Scope 3 collection and calculation in alignment with protocols and standards

Transparency and Compliance
- Continue third party verification of emission disclosures
- Strengthen TCFD* disclosures and improve CDP* and ESG scoring

Collaboration and Engagement
- Engage with regulators and investors to monitor emerging regulations and trends
- Collaborate with stakeholders to drive the low carbon economy

* Notes
CCUS: Carbon Capture Utilization & Storage; CCS: Carbon Capture & Storage; TCFD: Task Force on Climate Related Financial Disclosure; CDP: Carbon Disclosure Project

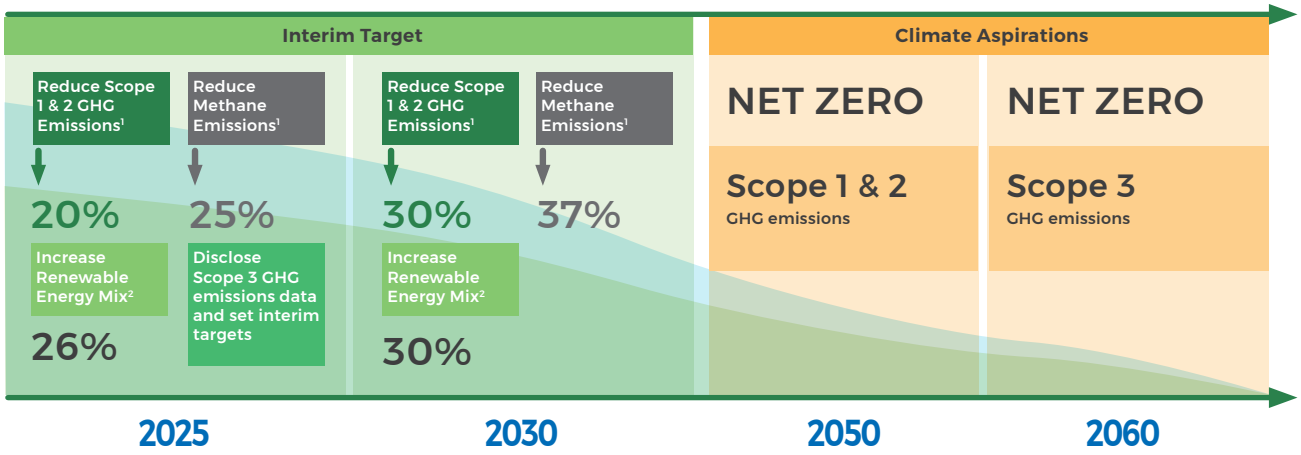
We have defined four enablers to support the implementation of our Climate Change Strategy: Governance, Data Management, Transparency and Compliance, and Collaboration and Engagement. These enablers ensure a coordinated, effective response to the climate challenge.

Establishing Our Climate Interim Targets

With the issuance of our Climate Change Strategy, we sought to develop a clearly defined pathway to reduce our GHG emissions by issuing our climate interim targets.

In formulating these targets, we conducted a strategic review and analysis of our host government's Nationally Determined Contributions (NDCs), utilised our internal Long-Term Planning (LTP) data and conducted a peer benchmarking exercise. In addition, we assessed our climate-related risks and opportunities and considered our past and on-going emissions reductions and energy efficiency programmes. We also considered existing and emerging regulatory trends and frameworks of the host governments in the countries in which we operate. Our interim target-setting process in 2022 was a collaborative effort that incorporated both top-down and bottom-up approaches and proactive engagements in corporate functions at all levels.

Our climate interim targets are to reduce Scope 1 and Scope 2 GHG emissions by 20% and 30%, and methane emissions by 25% and 37% for our oil & gas business in 2025 and 2030 respectively, from the base year 2019. We selected 2019 as our base year as it reflected our pre-pandemic operations, and was the most appropriate point of reference. We also intend to provide 26% of our installed capacity from renewable energy in 2025 and 30% in 2030 in our power business[1].



[1] Medco Oil & Gas emissions based on the operational control approach and reduction from the 2019 base year.
[2] Equity shared installed capacity. The Government of Indonesia's renewable energy mix target is 23% by 2025 and 25% by 2030.

Our climate interim targets are path of the framework for MedcoEnergi's climate action, enabling us to track and report quantifiable progress towards reducing our emissions and achieving our climate aspirations.

[1] The Government of Indonesia has a target of achieving at least 23% new and renewable energy installed capacity in 2025 and at least 31% in 2050, as stipulated in the country's Enhanced National Determined Contribution (ENDC) issued in September 2022.

Enhancing Our Employees' Capacity for Climate Action

As part of our Climate Change Strategy implementation, we conducted capability building sessions throughout 2022. The intention was to provide a comprehensive understanding of various climate- and energy transition-related concepts, standards, and frameworks. These included such topics as Corporate Climate Action, Climate Scenario Analysis, GHG Emissions Inventory and Management, Carbon Capture Utilization and Storage (CCUS) Process Study, Renewable Energy Programs (Solar PV, Mini Hydro Power), and Sustainable and Climate Finance. Through interactive discussions and case studies, we empowered participants to identify challenges and opportunities in their respective roles.

In addition, employees from Medco Power and its subsidiaries participated in a series of Vocational Training for Trainers, focusing on renewable energy. This training, organised by the German Agency for International Cooperation (GIZ)[1] through the Innovation and Investment for Inclusive Sustainable Economic Development (ISED) Project, covered a wide range of technical topics and skills, including the Renewable Energy Financial Model and Investment Analysis and the Renewable Energy Community Engagement and Empowerment Programme. This has equipped our employees with the necessary expertise required to meet the interim climate targets pertaining to MedcoEnergi's renewable energy installed capacity.

Participating in Global Climate Events and Conferences

In 2022, MedcoEnergi participated in a number of climate-related events and conferences. In these events, we shared our Climate Change Strategy and emphasised the important role that the energy sector plays in addressing climate change. We endeavoured to uphold the transparency and accountability of our climate performance with our stakeholders. In addition, participating in these events enabled us to gain insights and feedback on our strategy, progress, and performance.

These events included the 2022 United Nations Climate Change Conference of the Parties (COP27) held in Sharm El Sheikh, Egypt, and the Net Zero Summit in Bali, Indonesia. We were also one of the primary sponsors of the KADIN[2] 2022 Net Zero Summit.

In addition to our participation in the 46th IPA Conference and Exhibition, we are actively involved in several IPA Committees working on addressing climate change and accelerating the energy transition.

Establishing Climate-related Incentives

MedcoEnergi implements incentive pay policies linked to sustainability and climate action performance, specifically regarding GHG and methane emissions reduction and the increase in renewable installed capacity. Each year, Team Performance Contracts (TPC) are established from board-level executive leadership to individual employees. These TPCs include sustainability- and climate-related KPIs, which are monitored and evaluated each quarter. Each year, results are reviewed to determine whether our targets have been achieved, and to assess appropriate performance incentives including salary reviews.

[1] GIZ (Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH/German Agency for International Cooperation GmbH) is a German government-owned development agency that operates in over 120 countries worldwide, including Indonesia.
[2] Indonesian Chamber of Commerce and Industry.

Climate Business Integration

We integrate climate change considerations into our business, and we are committed to maintaining transparency.

Since joining CDP in 2021, we have enhanced our performance and achieved a B score for the 2022 CDP Climate Change submission. We published our initial Task Force on Climate-Related Financial Disclosures (TCFD) report in 2022, and our progress is highlighted in the table below.

TCFD Core Element	Recommended Disclosure	Summary of Progress by 2022	Source
Governance	a. Describe the board's oversight of climate-related risks and opportunities. b. Describe management's role in assessing and managing climate-related risks and opportunities.	- Established MedcoEnergi's Climate Governance to address climate-related risks and opportunities, including defining climate-specific roles and responsibilities for our Board of Commissioners (BoC), Board of Directors (BoD) and the Sustainability & Risk Management Committee (SRMC) - Formalised our Climate Change Working Group and Energy Transition Working Group and assigned Persons in Charge (PICs) from relevant functions for both Working Groups pertaining to each pillar of our Climate Change Strategy	- Sustainability Report 2022, Chapter 5.2 - TCFD Report 2022, page 4-5
Strategy	a. Describe the climate-related risks and opportunities the organisation has identified over the short-, medium-, and long-term. b. Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning. c. Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	- Disclosed the climate-related risks and opportunities identified from our climate scenario analysis in our SR and TCFD report - Developed our Climate Change Strategy based on the findings of our climate scenario analysis	- Sustainability Report, Chapter 7.3 - TCFD Report 2022, page 6-12
Risk Management	a. Describe the organisation's processes for identifying and assessing climate-related risks. b. Describe the organisation's processes for managing climate-related risks. c. Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organisation's overall risk management.	- Conducted a qualitative climate scenario analysis - Recognised climate change as a comprehensive topic interacting with all categories of MedcoEnergi's risk universe	- Sustainability Report 2022, Chapter 5.3 and Chapter 7.3 - TCFD Report 2022, page 13-15

TCFD Core Element	Recommended Disclosure	Summary of Progress by 2022	Source
Metrics and Targets	a. Disclose the metrics utilised by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process. b. Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas (GHG) emissions and the related risks. c. Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets.	- Announced our climate aspirations of achieving net zero for Scope 1 and Scope 2 emissions by 2050 and Scope 3 emissions by 2060 - Issued our climate interim targets to reduce Scope 1 and Scope 2 greenhouse gas (GHG) emissions by 20% and 30%, methane emissions by 25% and 37% for our oil & gas business in 2025 and 2030 from 2019 base year. These targets also include achiving 26% of our installed capacity from renewable energy in 2025 and 30% in 2030 for our power business.	Sustainability Report, Chapter 7.1, 7.5 and 7.6

Our full TCFD report and CDP Climate Change 2021 response can be accessed in the MedcoEnergi's website.



Kerisi Gas Injection Compressor Bypass, Block B, Indonesia

Assessing Our Climate-related Risks and Opportunities

Effective and strategic management of our climate-related risks and opportunities is critical to maintaining business resilience. In 2021, we conducted a climate scenario analysis to identify and assess transition and physical risks and opportunities. Our approach is summarised below:

	Transition Risks and Opportunities	Physical Risks
Climate Scenarios	International Energy Agency (IEA)'s Stated Policies Scenario (STEPS) and Sustainable Development Scenario (SDS)	Intergovernmental Panel on Climate Change (IPCC) Representative Concentration Pathways (RCP) 8.5 (Business as Usual) and RCP 4.5 (Middle Path)
Scope of Analysis	MedcoEnergi's oil & gas and power businesses, at the corporate level	Acute and chronic physical risks for 19 onshore material assets (15 in Indonesia, 2 in Oman, and 2 in Thailand)
Timeframe	2030 and 2040	2050

Climate change has the potential to significantly impact our Company by altering the business and physical landscape. One of the key implications identified is the accelerating shift towards low carbon economy, increasing stakeholder pressures, and stringent regulations for GHG emissions reduction. The governments of our countries in which we operate are begining to establish a carbon market. This may impact our operating and capital expenditure costs due to the need to invest in new technologies and processes to minimise emissions. In addition, the increasing severity and frequency of extreme climate events due to climate change may have long-term impacts on MedcoEnergi's asset infrastructure. This may result in higher maintenance expenses and interruptions to production.

Further reading on the approach, methodology, findings, and mitigation measures for our 2021 climate scenario analysis can be found in our TCFD report.

Quantifying our Climate-related Risks and Opportunities

Quantifying the impact of our climate-related risks and opportunities is the next step towards effective climate management, mitigation, and adaptation. This will allow a comprehensive understanding of the potential impact of climate change on our operations, finances, and long-term business sustainability.

We have initiated a quantitative analysis by assessing the potential impact of carbon pricing to our business. Our assumptions, methodology and conclusions are highlighted on the next page:

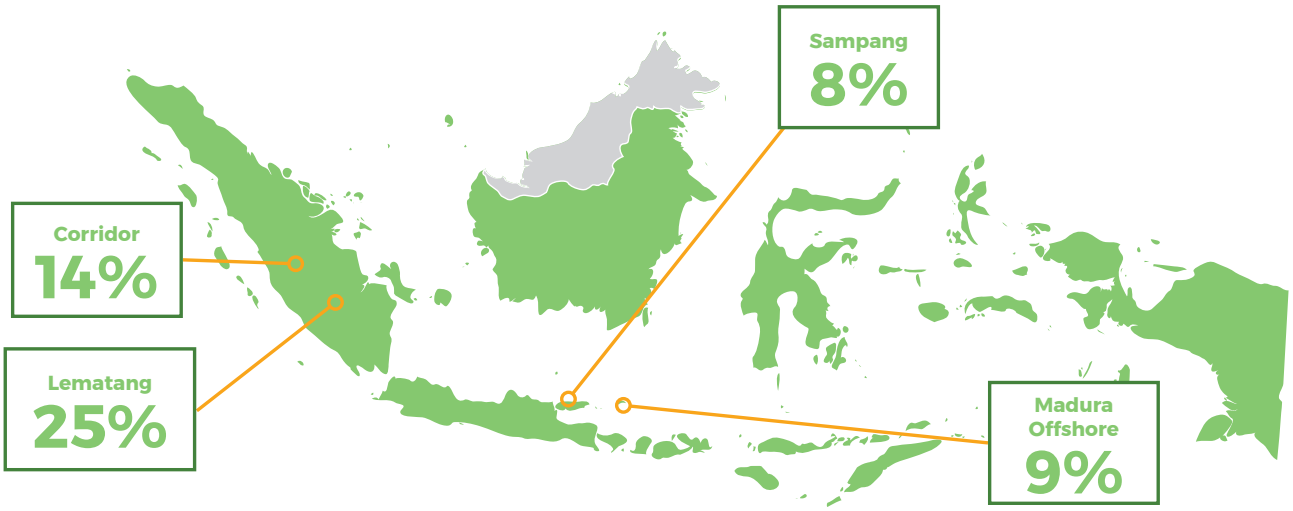
Identified Risk:	Carbon Pricing
Description:	Host governments in the countries in which we operate are increasingly establishing domestic carbon markets. These include regulations pertaining to carbon pricing mechanisms including: **The Indonesian Law No. 7/2021**, which sets a minimum carbon price of approximately USD 2.06/tCO_2e **Thailand's National Reform Plan 2018**, which mandates the government to develop an economic instrument, such as a cap-and-trade program, to incentivise GHG emissions reductions in the private sector **Singapore's carbon tax** of USD 4/tCO_2e, established in 2019. This tax rate is applicable for the industrial and power sectors with an annual GHG emissions in excess of 25 $ktCO_2e$, and is set to increase to USD 7/tCO_2e to USD 11/tCO_2e by 2030
Potential impact:	Our business may encounter increased operational costs due to carbon pricing. To evaluate its financial implications, we utilise two reference points for carbon pricing: the Indonesian Law No. 7/2021, which sets a price of USD 2.06/tCO_2e, and Singapore's planned carbon tax of USD 7/tCO_2e in 2030 for the minimum and maximum financial impact figures. Adopting a conservative approach, we multiplied these reference points by the total Scope 1 GHG emissions of our oil & gas and power businesses in 2022. Our calculations are outlined below: **Potential financial impact figure (minimum):** (4,345,147 + 1,365,141) tCO_2e * USD 2.06/tCO_2e = **USD 11,763,194** **Potential financial impact figure (maximum):** (4,345,147 + 1,365,141) tCO_2e * USD 7/tCO_2e = **USD 39,972,018**

MedcoEnergi will conduct a more detailed, quantitative climate scenario analysis. The analysis will encompass the majority of our material assets across our oil & gas and power businesses and utilise the latest climate scenarios issued by the IPCC, the Share Socioeconomic Pathways (SSPs)[1].

[1] The SSPs are a set of scenarios used in climate modelling to explore how different societal and economic factors could influence future GHG emissions and the resulting climate impacts. Unlike the previously used RCPs, the SSPs consider a range of socioeconomic assumptions such as population growth, economic development, energy use and technological progress.

Our Environmental Footprint at a Glance

Oil & Gas Total Scope 1 & 2 GHG Emissions Reduction Performance in 2022 from 2021[1]

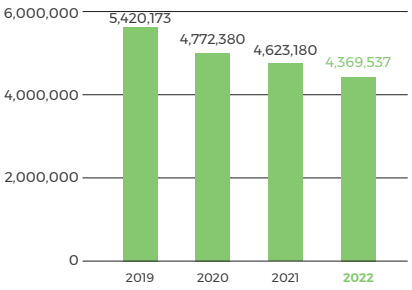


5%
Reduced Oil & Gas Scope 1 & 2 GHG emissions in 2022 from 2021

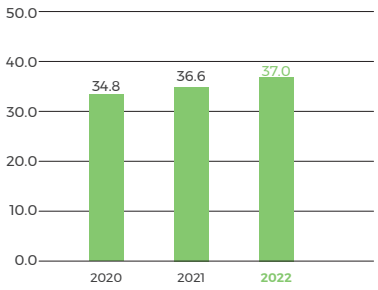
19%
Reduced Oil & Gas Scope 1 & 2 GHG emissions in 2022 from 2019

18%
Reduced methane (CH_4) emissions in 2022 from 2019

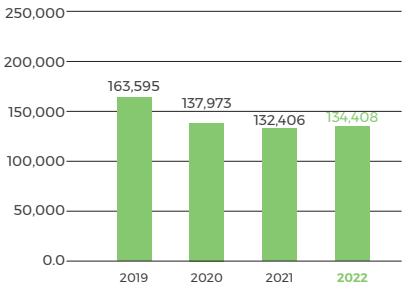
Oil & Gas Scope 1 and Scope 2 GHG Emissions
(tCO_2e)



Oil & Gas Energy Consumption
(million GJ)



Oil & Gas Scope 1 GHG Emissions from Methane (CH_4)
(tCO_2e)



[1] The table statistics are assured data on the variance between 2022 and 2021 Scope 1 and 2 GHG emissions.

Emissions Reduction

Emissions Reduction encompasses our programmes and initiatives intended to reduce emissions from our operations and supply chains, and enhance our energy and resource efficiency.

In March 2022, we have acquired Corridor, a Sumatra-based PSC with 7 producing gas fields, and 2 producing oil fields. We have also improved our GHG emissions calculation methodology in several emissions sources, specifically in Block A, South Natuna Sea Block B, Lematang, and Bangkanai. The improvement of GHG emissions calculation in the above mentioned assets covers inclusion of some more accurate quantification methods in several emissions sources for venting, stationary combustion, thermal oxidizer and sulphur recovery unit. We also established the 2019 GHG emissions data as the base year emissions. In order to have a more thorough and comparative year on year emissions figure, we have recalculated and restated the Oil & Gas GRI 305 Emissions disclosures for the years 2019, 2020, and 2021 in this report. The effect of the restatement after the Corridor acquisition and improvement of calculation methodology resulted in an increase of 220%, 237%, and 222% GHG emissions in 2019, 2020, and 2021, respectively, compared to the previously reported total Scope 1 and Scope 2 GHG emissions for Oil & Gas.

GHG Emissions Performance

We continue to manage, monitor, and disclose our Scope 1 and Scope 2 GHG emissions. We are developing our internal systems and processes to disclose our Scope 3 GHG emissions. We intend to disclose our assured Scope 3 GHG emissions and its interim targets in 2025.

In 2022, we revisited and updated our standardised Air and GHG Emissions Calculation Tool. In doing so, we ensure compliance with the latest updates to the applicable laws and regulations and alignment to the standards and frameworks[1].

Direct GHG Emissions (Scope 1)

We account for direct emissions from our oil & gas and power assets as part of our Scope 1 GHG emissions. The key sources of these emissions are the combustion of fuels and the flaring and fugitives of natural gas in our operations.

Oil & Gas

In 2022, our Scope 1 GHG emissions[2] from our oil & gas assets were 4,345,147 tCO_2e. This is a 6% decrease from the previous year, driven by the operational improvements, GHG emission reduction efforts, and production decline in high CO_2 fields. The table below indicates our Scope 1 GHG emissions in tCO_2e and their sources:

Scope 1 GHG Emissions Based on Sources

Type of GHG emissions source	2020	2021	2022
Combustion	4,390,806	4,228,194	3,902,451
Flaring	259,935	270,897	340,562
Venting	35,362	30,303	31,309
Process (feedstock)	1,678	2,166	1,439
Fugitives	73,194	73,910	69,386
Total	**4,760,975**	**4,605,470**	**4,345,147**

The increase of flaring emissions was mostly attributed to plant maintenance in Block A and well activities in Lematang, while the increase of venting emissions was due to higher drilling activities in Thailand. Fugitive emissions decreased with the shut-in of several equipment in alignment with offshore production decline. For further information on the trend and statistics of Scope 1 GHG Emissions data above, please refer to 2022 GRI Performance Data. Below are our methane (CH_4) values from our Scope 1 GHG emissions:

Scope 1 GHG Emissions from Methane (CH_4)

	2020	2021	2022
Scope 1 GHG emissions from methane (CH_4) in tCO_2e	137,973	132,406	134,408
Percentage of Scope 1 GHG emissions from methane (CH_4)	2.9%	2.9%	3.1%

Higher methane emission in 2022 compared to 2021 is due to more well activities (Thailand, Lematang) and plant maintenance (Block A).

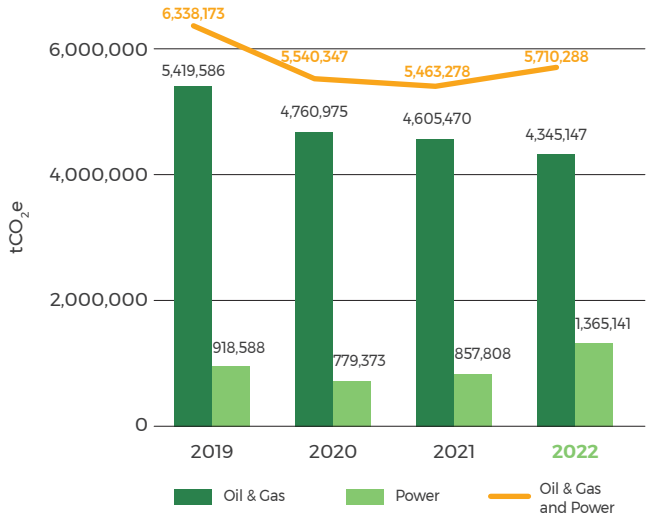
[1] Our Air and GHG Emissions Calculation Tool references the American Petroleum Institute (API) Compendium 2009, the US Environmental Protection Agency (EPA) AP-42 Compilation of Air Pollutant Emissions Factors, the IPCC Guidelines for National Greenhouse Gas Inventories 2006, the GHG Protocol for Corporate Accounting and Reporting Standard from the World Business Council for Sustainable Development (WBCSD) and World Resources Institute (WRI) 2004, EPA Mandatory GHG Reporting 2016, US EPA GHG Inventory Guidance 2016, the ISO 14064-2006 and Natural Gas (Second Edition: 2019) by James G. Speight.

[2] The list of assets in 2020 that calculate GHG Scope 1 Emission —International: Oman, Thailand and Malaysia Office; Domestic: Rimau, South Sumatra Block, Lematang, Tarakan, Block A, South Natuna Sea Block B, Bangkanai, Sampang, Madura Offshore, Corridor and Jakarta Offices.
The list of assets in 2021 and 2022 that calculate GHG Scope 1 Emission—International: Oman and Thailand; Domestic: Rimau, South Sumatra Block, Lematang, Tarakan, Block A, South Natuna Sea Block B, Bangkanai, Sampang, Madura Offshore, Corridor and Jakarta Office. Corridor acquisition completed in March 2022. Emission from Corridor is included from 2019 as it is our base year.

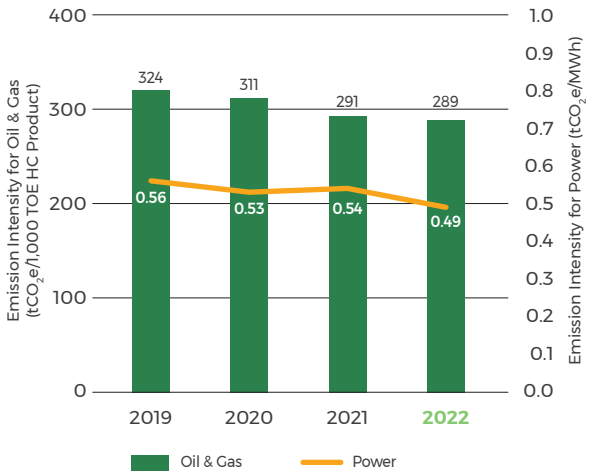
Power

For our power business, our Scope 1 GHG emissions in 2022[1] were 1,365,141 tCO_2e, indicating a 59% increase from 857,808 tCO_2e in 2021[2]. This is primarily due to the new MRPR Gas IPP which was commercially operational in early 2022.

Oil & Gas and Power Scope 1 GHG Emissions



Oil & Gas and Power Scope 1 GHG Emissions Intensity



Indirect GHG Emissions (Scope 2)

Our Scope 2 GHG emissions are our indirect GHG emissions associated with our purchased electricity.

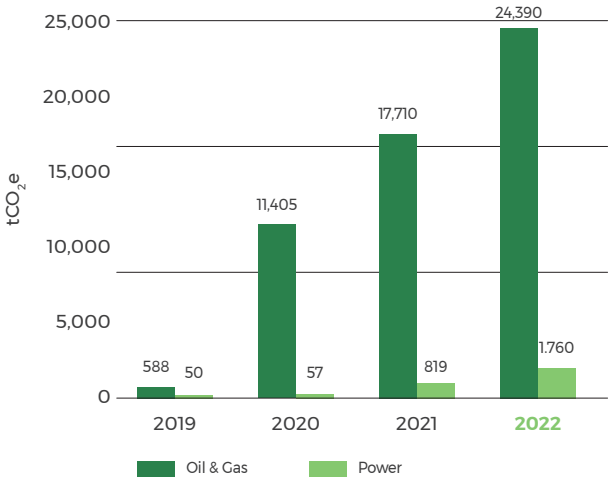
Oil & Gas

Our oil & gas assets emitted 24,390 tCO_2e, indicating a 38% increase from 17,710 tCO_2e in 2021. This increase is due to the fact that we have switched our generators in the South Sumatra Block and Bangkanai with purchased electricity, as well as the higher electricity consumption across all our offices with the relaxation of COVID-19 restrictions in 2022.

Power

Our power assets' Scope 2 emissions were 1,760 tCO_2e, indicating a 115% increase from 819 tCO_2e in 2021. This was due to the new MRPR Gas IPP which was commercially operational in early 2022.

Oil & Gas and Power Scope 2 GHG Emissions



[1] Medco Power subsidiaries in 2022 calculating Scope 1 GHG Emission were ELB, EPE, MPE, MEB, DEB, MRPR, BJI, PPP and MPI Head Office.
[2] Medco Power subsidiaries in 2020–2021 calculating Scope 1 GHG Emission were ELB, EPE, MPE, MEB and DEB.

Indirect GHG Emissions (Scope 3)

Our Scope 3 GHG emissions refer to the indirect GHG emissions that occur along our value chain. They include all GHG emission sources that are not within our Scope 1 and Scope 2 GHG emissions.

In 2021, we completed an assessment to identify significant and relevant Scope 3 categories for our oil & gas and power assets, based on the GHG Protocol's Corporate Value Chain (Scope 3) Accounting and Reporting Standard.

We are currently working on enhancing our internal systems and processes to identify, manage and disclose our Scope 3 GHG emissions. This includes updating our Air and GHG Emissions Calculation Tool, establishing an inventory, delivering capability-building sessions, and engaging with our business partners. We aim to assure and disclose our significant Scope 3 GHG emissions and set a reduction target by 2025.

Energy Performance

We continuously implement programs and initiatives aimed at securing energy efficiency to minimise our footprint. At MedcoEnergi, we regularly conduct energy audits to evaluate our consumption and identify opportunities to improve our performance. The table below showcases our energy performance:

Total Energy Consumption and Intensity for Oil & Gas and Power

		Unit	2020	2021	2022
Total Energy Consumption	Oil & Gas	GJ	34,845,654[1,2,3,4]	36,596,034[1,2,5]	37,026,220[1,6,7,8,9]
	Power	GJ	8,606,234[12]	9,539,621[12]	14,390,683[11,13]
Energy Intensity	Oil & Gas	GJ/TOE HC Product	2.28[1,2,3,4]	2.31[1,2,5]	2.47[1,6,7,8,9,10]
	Power	GJ/MWh	5.86[12]	5.97[12]	5.21[11]

We have used the American Petroleum Institute (API) Compendium 2009, the GHG Protocol for Corporate Accounting and Reporting Standard from WBCSD and WRI 2004, the ISO 14064-1:2006, and Natural Gas (Second Edition: 2019) by James G. Speight in our calculations.

1 The list of assets—International: Oman, Thailand, Singapore Office, and Malaysia Office; Domestic: Rimau, South Sumatra Block, Lematang, Tarakan, Block A, South Natuna Sea Block B, Bangkanai, Sampang, Madura Offshore, Corridor and Jakarta Office.
Corridor acquisition completed in March 2022. Energy from Corridor is included from 2019 as Medco's Emission base year started in 2019.
2 Assets in 2020 and 2021 consuming energy from purchased electricity consisted of Tarakan, South Natuna Sea Block B, Sampang, Thailand, Oman, Malaysia Office, Singapore Office, Jakarta Office and Corridor.
3 Purchased electricity consumption for Oman covers energy consumed from purchased electricity in May - December 2020. Consumption in January - April 2020 was unavailable from the provider.
4 2020 was the first year Jakarta Offices and Oman disclosed their purchased electricity consumption, which was significantly higher than other assets.
5 2021 was the first year Grati Onshore Processing Facilites (OPF) in Sampang converted its power source from natural gas generator to purchased electricity, causing a significant increase in purchased electricity consumption figures.
6 There was greater compressor fuel gas consumption in South Natuna Sea Block B and drilling activities in Thailand in 2022.
7 Increasing utilisation of Biodiesel (B30) in diesel generators and transportation in Offshore and Onshore.
8 Assets consuming energy in 2022 from purchased electricity consisted of Bangkanai, South Sumatra Block, Tarakan, South Natuna Sea Block B, Sampang, Thailand, Oman, Malaysia Office, Singapore Office, Jakarta Office and Corridor.
9 Generators converted to purchased electricity Onshore (South Sumatra Block and Bangkanai) and greater electricity consumption occurred at all offices due to COVID-19 restriction relaxation in 2022.
10 Higher compressors fuel gas consumption in South Natuna Sea Block B as well as lower production in Offshore and Corridor as a result of natural decline in 2022.
11 Medco Power subsidiaries in 2022 were ELB, EPE, MPE, MEB, DEB, MRPR, BJI, PPP and MPI Head Office.
12 Medco Power subsidiaries in 2020-2021 were ELB, EPE, MPE, MEB and DEB.
13 The significant increase of energy consumption is mainly due to addition in operational assets. Hence, the amount of electricity production were also increasing in 2022 followed by the increase of energy consumption.

Oil & Gas

In 2022, total energy consumption at our oil & gas assets was 37,026,220 GJ, 1% increase from 36,596,034 GJ in 2021. However, there was a significant 148% increase in energy consumption from renewable sources compared with 2021. This was primarily due to our increased utilisation of biodiesel (B30) for diesel generators and transportation across our Offshore and Onshore assets.

Oil & Gas Energy Consumption

	2020 (GJ)	2021 (GJ)	2022 (GJ)
Electricity consumption	92,931[1,3,4]	159,850[1,5]	162,802[2,6]
Renewable energy sources (e.g., biodiesel (B30), gasohol (E20) and solar energy)	15,994[7]	43,347[7]	107,655[7,8]
Non-renewable energy sources (e.g., gasoline, natural gas, diesel, and crude oil)	34,736,729[7]	36,392,837[7]	36,755,763[7,9]

Power

Our power assets total energy consumption was 14,390,683 GJ, an increase of 51% compared with 9,539,621 GJ in 2021. This was due to the new MRPR Gas IPP which was commercially operational in early 2022.

Power Energy Consumption

	2020 (GJ)	2021 (GJ)	2022 (GJ)
Electricity consumption	3,662[10]	3,135[10]	6,806[11]
Renewable energy sources (e.g., biodiesel (B30) and solar energy)	13[10,12]	9[10,13]	322[11,14,15]
Non-renewable energy sources (e.g., gasoline, diesel, and natural gas)	13,878,521[10]	15,275,316[10]	24,309,197[11]
Electricity sold	5,275,962[10]	5,738,838[10]	9,925,642[11,16]

1 The list of assets in 2020 and 2021 that consume energy from purchased electricity consist of Tarakan, South Natuna Sea Block B, Sampang, Thailand, Oman, Malaysia Office, Singapore Office, Jakarta Office, and Corridor.
2 The list of assets in 2022 that consume energy from purchased electricity consist of Bangkanai, South Sumatra Block, Tarakan, South Natuna Sea Block B, Sampang, Thailand, Oman, Malaysia Office, Singapore Office, Jakarta Office, and Corridor.
3 The total purchased electricity consumption for Oman only covers the energy consumed from purchased electricity in May - December 2020. The electricity consumption in January - April 2020 was not available from the provider.
4 2020 was the first year for Jakarta Office and Oman to disclose their purchased electricity consumption, which was significantly higher compared to other assets.
5 2021 was the first year for Grati Onshore Processing Facilites (OPF) in Sampang to switch its power source from natural gas generator to purchased electricity, which cause significant increase in total purchased electricity consumption figures.
6 Switching out generators with purchased electricity in Onshore (South Sumatra Block and Bangkanai), and higher electricity consumption in all offices due to COVID-19 restriction relaxation in 2022.
7 The list of assets—International: Oman, Thailand, Singapore Office, and Malaysia Office; Domestic: Rimau, South Sumatra Block, Lematang, Tarakan, Block A, South Natuna Sea Block B, Bangkanai, Sampang, Madura Offshore, Corridor and Jakarta Office.
Corridor acquisition completed in March 2022. Energy from Corridor is included from 2019 as Medco's Emission base year started in 2019.
8 Increasing usage of Biodiesel (B30) in diesel generators and transportations in Offshore and Onshore.
9 Higher compressors fuel gas consumption in South Natuna Sea Block B and drilling activities in Thailand during 2022.
10 Medco Power subsidiaries in 2020-2021 were ELB, EPE, MPE, MEB and DEB.
11 Medco Power subsidiaries in 2022 were ELB, EPE, MPE, MEB, DEB, MRPR, BJI, PPP and MPI Head Office.
12 The list of assets in 2020 that consumed renewable fuel is MPE and EPE.
13 The list of assets in 2021 that consumed renewable fuel is EPE.
14 The list of assets in 2022 that consumed renewable fuel is ELB, MEB, MRPR, BJI, and PPP.
15 The significant increase of renewable energy consumption is mainly due to increasing biofuel and solar panel usage in additional and existing operational assets.
16 The actual production in ELB, MEB, DEB and MRPR were the total amount of electricity produced by the engine and sold to the third-party (PLN), while in MPE, EPE, BJI and PPP, the actual production contains electricity sold to third-party and internal consumption.

Strategic Initiatives

Across Medco Oil & Gas assets, we have implemented initiatives intended to reduce our GHG emissions. These initiatives involve processes including fuel consumption and flare reduction, gas lift conversion and renewable energy adoption. The initiatives and their peak annual GHG emission reductions are highlighted below:

52,240 tCO_2e

Estimated GHG emissions reductions in 2022

USD 1.8 million

Total investments in GHG emissions reduction programmes and initiatives in 2022

Onshore[1]

Rimau



Estimated reduction of **1,500** tCO_2e/year

Optimised fuel consumption to save fuel and reduce GHG emissions at Kaji Satellite station by deactivating one of the gas compressors units

Tarakan

Added 1 more unit of **very low-pressure compressor** (VLPC) to reduce flaring



Estimated reduction of **3,500** tCO_2e/year

Bangkanai



Estimated reduction of **237** tCO_2e/year

Substituted gas engine generator (GEG) for purchased electricity from PLN

South Sumatra Block



Calculated reduction of **17,400** tCO_2e/year

Implemented **well optimisation** at Matra

Calculated reduction of **20,880** tCO_2e/year by reducing flared gas of 1.2 Million Standard Cubic Feet per Day (MMSCFD)

Reduce flaring by compressing associated gas to sales gas, which was then sold and utilised as fuel gas and top-up gas lift

Substituted diesel-based egine to GEG

Estimated reduction of **105** tCO_2e/year

Optimised engine performance by reducing 1 GEG

Estimated reduction of **2,000** tCO_2e/year



Block A

Calculated reduction of **5,046** tCO_2e/year

Optimised **fuel gas usage to steam boiler**

Calculated reduction of **3,600** tCO_2e/year

Implemented **acid gas to flare reduction** initiatives

Accross our Onshore assets, we have used renewable energy within the operational area by switching from on-grid electricity to **solar power for street lighting**

[1] The numbers indicate the peak annual reduction.

Offshore[1]

Estimated reduction of
73,000 tCO_2e
in domestic offshore assets from our reduction initiatives since 2020

Estimated reduction of
63,300 tCO_2e
in South Natuna Block B

Estimated reduction of
9,700 tCO_2e
in East Java

Incorporating Renewable Energy into our Assets

For the development of our new offshore platforms, we have adapted our platform designs to include solar panels. In doing so, we intend to utilise solar power as an energy source for these assets.

South Natuna Sea Block B

Optimised floating production storage and offloading (FPSO) power generation by **reducing the number of gas turbine generator** (GTG) from three to two

Estimated reduction of approximately
35,300
tCO_2e/year

Estimated reduction of approximately
3,800
tCO_2e/year

Implemented initiatives to **reduce flaring** at our North Belut field

Continued to **optimise our operating conditions** through processes aimed at improving efficiency at our Kerisi and North Belut fields

Estimated reduction of approximately
14,600
tCO_2e/year

Sampang

Substituted gas engine generator (GEG) with purchased electricity from PLN

Estimated reduction of
9,400
tCO_2e/year

Optimising Fuel Gas Consumption at South Natuna Sea Block B

Stationary combustion accounts for almost 89% of emissions in South Natuna Block B, with our Hang Tuah field contributing 13% in 2022. To address emissions at Hang Tuah field, we have implemented initiatives to optimise operations and reduce fuel gas consumption, resulting in an estimated reduction of Hang Tuah decreases 6,700 tCO_2e annually. We are currently exploring opportunities to expand these initiatives to our other facilities at South Natuna Block B.

Enhancing Systems to Reduce Emissions at Sampang

In 2021, mobile combustion sources contributed 4% of our East Java assets' Scope 1 GHG emissions, with Sampang contributing 46%. To address this, we implemented the Oyong Air Instrument project at Oyong, a wellhead in Sampang, which involved installing 8 kWp solar PVs and equipment to improve operational efficiency. The project was completed in six months and has resulted in an annual reduction of 149 tCO_2e.

Over 2023-2024, the solar PV capacity will be expanded for full power system redundancy.

[1] The numbers indicate the peak annual reduction.

Solar panels installed on our offshore platforms in Madura Offshore

International

Strengthening our GHG Inventory at Bualuang, Thailand

At Bualuang, Thailand, we established a GHG emissions inventory in 2018. To improve the effectiveness and accuracy of our emissions management and accounting, we have planned regular verification of significant sources, with sampling points and methods already identified. In 2022, we took the first samples from the cold vent, one of the significant emissions sources at our Bualuang asset.

Analysis of the site samples revealed that methane (CH_4) and carbon dioxide (CO_2) levels were lower than those calculated by our Air and GHG Emissions Calculation Tool, by approximately 1,584 tCO_2e, or 2.16% of the asset's total GHG emissions. The lower actual value reflects our efforts in implementing reduction initiatives at the asset.

Corridor[1]

At Corridor, we actively assess and execute initiatives intended to reduce our emissions. Conducting studies to explore GHG reduction opportunities and implementing them are integral components of our operating strategy, emphasising our commitment to continual improvement.

Estimated reduction of

102,000 tCO_2e

from our GHG emissions reduction initiatives since 2019

Reduce flaring by directly flowing gas during well clean-up and testing	**Optimising membranes** to improve methane slip reduction	**Optimising our operating strategies** through fuel gas reduction
Estimated reduction of **17,000** tCO_2e	Estimated reduction of **7,000** tCO_2e/year	Estimated reduction of **3,000** tCO_2e/year

In 2022, we completed our acquisition of the Corridor PSC. This asset comprises seven producing gas fields and two producing oil fields located onshore in South Sumatra, expanding our natural gas portfolio from 60% to 79% of 2022 production. Our focus was on aligning Corridor's management and accounting systems with our own. Following our acquisition in March 2022 we have began reviewing further development plans on GHG emissions reduction opportunities.

[1] The numbers indicate the peak annual reduction.

Transition to Low Carbon Energy

The Transition to Low Carbon Energy strategy guides MedcoEnergi in aligning our business with energy transition, pivoting from fossil-based fuels to renewable energy. En route to a low-carbon future, natural gas is cited as a transition fuel to lower emissions while meeting the growing energy demand of the region. Consequently, this involves expanding our natural gas production and renewable energy portfolio.

Gas as a Transition Energy Source

In addition, in 2022, we inaugurated Medco Ratch Power Riau (MRPR), a 275 MW gas-fired Combined Cycle Power Plant (CCPP) at Pekanbaru, Riau. This power plant is a joint venture between Medco Power and RATCH Group[1] and has been commercially operating since February 2022.

Providing Sustainable Energy for the Telkom Data Centre

In 2022, MedcoEnergi signed an MOU with Telkom to supply sustainable energy from gas and renewable energy sources to power Telkom's data centre in Batam. This data centre has a capacity of 72 MW.

Growing Renewables Portfolio

Geothermal Projects

With a focus on delivering cleaner and reliable energy, MedcoEnergi has been working towards increasing our geothermal energy capacity in Indonesia. The following highlights our key geothermal projects:

330 MW	30 MW
Sarulla Geothermal, North Sumatra	**Ijen Geothermal,** East Java
• One of the world's biggest geothermal power plants • Owned and operated by Sarulla Operations, a consortium Kyushu Electric Power, Itochu, Medco Power, INPEX and Ormat International • Supplier power to the State-owned Electricity Company (*Perusahaan Listrik Negara*/PLN)	• Project developed in a consortium between Medco Power and Ormat International • Completed four geothermal exploration wells since 2019 • Planned for Phase 1 operation by 2024 • Secured a Power Purchase Agreement (PPA) with PLN for 110 MWe
50 MWe	
Bonjol Geothermal, West Sumatra	
Initiated exploration in 2021	



Sarulla Geothermal Operation, Indonesia

[1] RATCH Group is an energy and infrastructure company headquartered in Thailand, with a focus on investing in fossil fuel and renewable energy projects, energy-related businesses and infrastructure in Thailand and internationally.

Solar PV Projects

We have expanded our solar photovoltaic (PV) portfolio in recent years, with an expectation of providing nearly 750 MWp by 2025 from four projects across Indonesia. The following highlights the progress of our solar PV projects as of 2022:

Project		Progress in 2022
Sumbawa PV Project (26 MWp)	- Developed by Medco Power and Amman Mineral Nusa Tenggara (AMNT) - The Project will be Indonesia's biggest utility-scale ground-mounted solar PV.	Operational
Solar Rooftops at ELB and MRPR site offices	- 33 kWp for ELB and 47 kWp for MRPR	Operational
Bali PV Project (2 x 25 MWp)	- Developed by Medco Power and Solar Philippines - Feasibility study completed in 2020	Power Purchase Agreement (PPA) signed
Bulan Island PV Project (670 MWp)	- Developed by Medco Power, Pacific Power Pte Ltd and Gallant Venture Ltd - Estimated to provide the equivalent of 100 MW of non-intermittent electricity - Joint development agreement signed in 2021 - Planned for development, operational by 2026	Currently conducting a feasibility study
Medco Onshore PV (19-20 MWp)	- Part of our initiative of installing solar PVs at our onshore assets	- Engineering survey conducted at three potential locations at Rimau - Head of Agreement (HOA) signed and site visits conducted

Powering our Support Facilities with Solar PVs

At South Natuna Sea Block B, we have installed solar PVs to power our support facilities. The objective of this initiative is to reduce our reliance on fossil fuels for lighting and to transition to a cleaner, renewable energy source. We intend to implement this initiative in phases, with each phase consisting of the instalment of 100 solar PVs monthly. As of 2022, 45 solar PVs had been installed.

Mini Hydropower

PT Medco Hidro Indonesia, our subsidiary, operates two mini hydropower plants in Cianjur, West Java, Cibalapulang and Pusaka Parahiangan, with a combined capacity of 18 MW.

Wind Energy Project

MedcoEnergi is currently developing a wind power plant at Sekongkang, West Sumbawa, with an estimated capacity of 50 to 100 MW. As of 2022, this project was undergoing a pre-feasibility study.

Electric Vehicles

Since signing a Memorandum of Understanding (MOU) with PLN, Grab Indonesia and Bank Mandiri, we have supplied charging infrastructure for electric vehicles to support operations in Jakarta, Pekanbaru and Batam.

Pursuing Decarbonisation through Strategic Partnerships

Medco Power has established partnerships with various industry players to explore the best available technologies for decarbonisation. The following table highlights some of the key developments:

Carbon Capture and Storage (CCS) and Carbon Capture, Utilisation and Storage (CCUS)	
Explore **potential opportunities** for adopting **CCS** and **CCUS** technologies	Established **an interim target** of launching an upstream **CCS Pilot Project** by 2025, and committed to strengthening our **strategic partnerships to explore CCS business opportunities**
Contributed to **the development of CCS and CCUS regulations** through our involvement with the IPA and relevant task forces organised by the Indonesian government	**Green Hydrogen** Signed an MOU with **Sembcorp** to explore opportunities in utilising **green hydrogen** as an energy source

Emerging Physical Climate Risk Management

To secure MedcoEnergi's business and operational resilience, we intend to adapt our asset infrastructure to withstand the increasing severity and frequency of extreme climate events. In 2023, we will conduct a detailed quantitative climate scenario analysis of our assets and businesses, using Shared Socioeconomic Pathways (SSPs) as the latest climate scenarios. This will allow us to understand and evaluate the degree of climate adaptation required by our assets, based on the selected climate hazards.

Alignment of Sustainability Initiatives with UN Sustainable Development Goals SDGs

The following table maps our sustainability initiatives in realising our climate aspirations against UN SDG targets. This mapping does not constitute a claim that MedcoEnergi has measured or set targets for host governments in our operational areas regarding the achievement of UN SDGs.

UN SDGs	Relevant Target	Key Initiatives
	7.2, 7.3, 7.A, 7.B	• Renewable energy development: solar PVs, hydropower, geothermal and wind power plants • Climate-capability-building training sessions, focussing on renewable energy development, deployment and community engagement
	12.2, 12.6	• Key initiatives within the Climate Change Strategy
	13.1, 13.2, 13.3	• Key initiatives within the Climate Change Strategy • Renewable energy development: solar PVs, hydropower, geothermal and wind power plants • Climate-capability-building training sessions • Participation in climate-related events and conferences



Public Elementary School, Rimau, South Sumatra, Indonesia

Chapter #8

Creating Opportunities for Communities

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With the MedcoEnergi Community Development Policy, we aim to empower local communities and assist them in becoming more resilient and self-reliant. Aligned with the United Nations Sustainable Development Goals (UN SDGs), our community development programmes are designed to nurture local potential, improve welfare and foster sustainable growth. We assess and prioritise community needs and incorporate local wisdom in developing our programmes. In doing so, MedcoEnergi strives to promote infrastructure development and secure sustainable livelihoods.

Our Community Development Policy is available on our website here. The Policy emphasises three key focus areas: **Natural Resources and Local Wisdom, Empowerment** and **Stakeholder Engagement**. These areas are outlined below.

Key Focus Areas of the MedcoEnergi Community Development Policy

Natural Resources and Local Wisdom

Community development programs are developed based on natural resources and local wisdom within local communities to foster sustainable growth.

Empowerment

Community empowerment process is aimed to improve the ability of communities to become self-reliant according to self-and environmental-potentials.

Stakeholder Engagement

Stakeholder engagement is carried out to obtain social license to operate and community development programme implementation.



Empowering climate change community resilience through the Climate Village programme (Proklim) in JOB Tomori.

Approach, Commitment, and Goals

We are committed to creating a positive impact on surrounding communities in our operational areas. We conduct an Environmental, Social and Health Impact Assessment (ESHIA) study of all projects and develop an Environmental, Social and Health Management Plan (ESHMP) to minimise negative impacts and amplify positive benefits for the surrounding communities, including vulnerable groups.

In addition to the ESHIA, we implement a Sustainability Assessment. This assessment evaluates environmental and social risks, and integrates mitigation measures into project schedules and budgets. Further reading on the Sustainability Assessment process can be found on page 64.

Effective impact assessment is crucial in minimising the potentially negative impacts of our operations on surrounding communities, including disruptions, community displacement and other social risks. To mitigate these risks, MedcoEnergi avoids operating in protected areas. This has enabled us to avoid conducting resettlement activities in any of our assets.

Based on our assessments, none of our projects and operations are located within or adjacent to indigenous communities. Nonetheless, we will follow international best practices and use the Free, Prior and Informed Consent (FPIC)[1] principles should our expanding business and asset portfolio bring us into close proximity to indigenous communities.

We aim to create opportunities for communities by sourcing local talent and encouraging our contractors to do likewise. This is reflected in our local hiring policy, implemented in Block A and Medco Ratch Power Riau (MRPR) in 2022. Consequently, local recruits comprised 80% of employees in Block A. This percentage increased to 90% with the inclusion of contract workers.

Meaningful Engagement with our Stakeholders

As part of the Social Management System (SMS), we conduct stakeholder and social mapping to identify local stakeholders and communities of interest. These processes are critical for ensuring that we address community needs and implement our programmes in a culturally sensitive manner.

Stakeholder Mapping

This process involves registering stakeholders related to environmental and social issues and considering their significance based on impact, stakeholders influence and interest.

Based on this mapping, a Stakeholder Engagement Plan (SEP) is formulated to provide a platform for effective engagement based on issues and risks. The SEP is utilised in evaluating the implementation of our community development programmes.

Social Mapping

This process involves identifying the social structures, relationships and dynamics of a community, including analysing the social context, demographics, stakeholder relationships, culture and security.

[1] FPIC (Free, Prior and Informed Consent) is a principle recognising the right of indigenous peoples to give or withhold consent to decisions affecting their lands, territories, resources and cultures, based on accurate and relevant information, and without coercion or manipulation (www.ifc.org).

Our precautionary and participative approach aims to foster connections, trust and confidence with local communities and other stakeholders. We believe that proactive engagement effectively mitigates potential risks and conflicts with community groups. Below are the key roles involved in managing our community relations:

Field Relations Officer

Plans and implements community development programmes, including social mapping, planning, execution and reporting.

Community Enhancement Team

Provides direction to the community development programme's work plan and budget at the corporate level.

Asset General Manager

Reviews and approves the community development programmes and reports at the asset level.

We routinely engage with multi-stakeholder platforms, including village head forums (*Forum Kepala Desa*), district leadership coordination forums (*Forum Komunikasi Pimpinan Daerah*/FORKOPIMDA), local youth organisations (Karang Taruna), non-governmental organisations (NGOs) and other community-based organisations.

Human Rights and Security

Our Security Policy reflects our commitment to complying with all applicable laws and regulations and respecting human rights in line with the UN Guiding Principles on Business and Human Rights and the Voluntary Principles on Security and Human Rights (VPSHR). The Policy outlines our approach to detecting and reporting security threats, as well as our response mechanism. It serves as a starting point for MedcoEnergi in managing the salient human rights issues identified in our Human Rights Assessment (HRA), see page 33.

We implement the MedcoEnergi Security Management System (MSMS) across all assets. We continue to enhance our security protocols through training and capacity-building activities such as the *Gada Pratama, Gada Madya,* and *Gada Utama*[1] training programmes. We also conduct routine critical asset risk mapping, followed by monthly monitoring and evaluation of the Security Management Plan.

In 2022, 99.34% of Medco Oil & Gas and 100% of Medco Power security personnel participated in human rights training.

[1] The *Gada Pratama* training programme is designed for new security guards or candidates, while *Gada Madya* is a follow-up training programme for those who have completed the *Gada Pratama*. The *Gada Utama* is exclusively intended for security managers at the chief security officer or managerial level.

Supporting Community Livelihoods

Our community development programmes are developed to foster self-reliance in local communities. We establish and support multi-year programmes tailored to meet the specific needs of communities in our operational areas.

Key Community Development Programmes

The table below shows key community development programmes conducted in 2022. The complete list of our community development programmes is available in the GRI Performance Data, GRI 203 on page 15-18 and GRI 413 on page 18-23.

Asset	Project Description	Programme Type
Block A Sumatra, Indonesia	Established a Women and Children Empowerment Program including a house (*Rumah Pemberdayaan Ibu dan Anak*/RPIA) and a learning centre	Sustainable livelihoods
	Contributed to cultivation programmes, including horticulture, ginger, chili, banana, papaya, corn and patchouli	Sustainable livelihoods
	Sponsored the rehabilitation and renovation of social and public facilities, including mosques, schools and roads	Infrastructure development
	Provided monetary and logistical support for areas impacted by flooding	Others: Donation
South Natuna Sea Block B Riau Islands, Indonesia	Supported the Anambas Islands fishermen in the establishment of a grouper aquaculture business utilising floating fishing nets	Sustainable livelihoods
	Launched the Food Security Programme in collaboration with the Bina Tani Sejahtera Foundation	Sustainable livelihoods
	Provided financial assistance to construct child-friendly open spaces (*Ruang Publik Terpadu Ramah Anak*/RPTRA)	Infrastructure development
Corridor South Sumatra, Indonesia	Delivered youth training programmes through the Musi Banyuasin Vocational Training Centre	Sustainable livelihoods
	Provided scholarships for 360 students and teachers to pursue higher education	Sustainable livelihoods
	Distributed food packages through the Safari Ramadhan Programmes	Sustainable livelihoods
South Sumatra Block South Sumatra, Indonesia	Sponsored the rehabilitation and establishment of social and public facilities, including roads, bridges, training centres, schools and clean water facilities.	Infrastructure development
	Provided assistance for fishery programmes utilising *lebak lebung* (swamp areas near rivers and valleys) and creating fish ponds	Sustainable livelihoods
Rimau South Sumatra, Indonesia	Supported traditional culture-based fishery programmes and activities	Sustainable livelihoods
	Initiated an Enterprise Development Programme aimed at supporting small businesses	Sustainable livelihoods
	Sponsored the rehabilitation and renovation of social and public facilities, including mosques, schools and roads	Infrastructure development
	Provided donations to support efforts in handling the COVID-19 pandemic	Others: COVID-19 support
Lematang South Sumatra, Indonesia	Provided support to local health centres by donating medical equipment and conducting health examinations and socialisation	Others: donation
	Assisted with the restoration of roads and bridges, renovations of mosques, churches and creation of social and public facilities	Infrastructure development

Asset	Project Description	Programme Type
Madura Offshore Madura, Indonesia	Provided capacity-building for fishermen groups, including assistance with the procurement of spare parts and fishing tools and support for business development	Sustainable livelihoods
	Assisted women in the Family Welfare Programme (*Pemberdayaan Kesejahteraan Keluarga*/PKK) for catfish cultivation	Sustainable livelihoods
Sampang Madura, Indonesia	Revitalised the Trunojoyo Monument Park in Sampang Regency to improve community access to green space	Infrastructure development
	Planted 555 Sonokembang trees (*Pterocarpus indiscus*)	Sustainable livelihoods
Bangkanai Kalimantan, Indonesia	Established educational programmes to raise awareness concerning forest and land fire prevention among local communities	Others: Forest fire prevention
	Assisted with the construction of social and public facilities, including mosques, bridges and tourism areas	Infrastructure development
	Supported initiatives to promote revegetation and other green programmes	Sustainable livelihoods
Tarakan Kalimantan, Indonesia	Supported local government in the *Sampah Semesta* programme to improve Tarakan City's waste management system	Others: Donation support for garbage bins and waste bank
	Supported various health programmes, including health examinations, healthy food provisions and COVID-19 handling support	Others: COVID-19 handling support
Bualuang Thailand	Offered academic scholarships to the value of THB 50,000 per person per academic year to students at Kasetsart University	Sustainable livelihoods
	Donated 150 first aid kits to the National Fisheries Association of Thailand (NFAT) as part of our sponsorship programme	Others: National event support
	Contributed to the development of a sensory room for students with disabilities at Chumphon Punyanukul School	Infrastructure development
Oman	Sponsorship young talent to participate Areei Distinguished Services LLC	Sustainable livelihoods
	Donation of Shaheen Cyclone affected staff	Others: Donation support
	Support Shaleem festival and the Hallaniyat event	Others: Event support
Medco Power	Donated funds for the construction of public facilities and national and religious holiday celebrations	Infrastructure development and Others: donation
	Supported the improvement of uninhabitable house	Infrastructure development
	Supported the development of training programmes for women-run micro-, small- and medium-sized enterprises (MSMEs)	Sustainable livelihoods
	Assisted in providing access to electricity for remote households and vulnerable groups	Infrastructure development and Sustainable livelihoods

Community Development Support

The following table shows the financial support provided by MedcoEnergi during the past three years.

Programme (USD)	2020	2021	2022
Sustainable livelihoods	625,353	524,287	1,132,176
Infrastructure development	754,992	1,031,951	905,129
Others	377,088	425,754	267,103
Total	**1,757,433**	**1,981,992**	**2,304,408**

Community Development Highlights

Highlights from Block A, Indonesia

Block A asset implemented a record number of community development programmes in 2022, with a focus on ensuring sustainable livelihoods and advancing infrastructure development for the surrounding communities.

Some key programmes are highlighted below:



Established a **Children and Women Empowerment House** in Ladang Baro Village. The House aims to empower the community by providing educational programmes, health and environmental services and economic empowerment initiatives.



Continued our **House Renovation Programme** to improve the living conditions of communities. As of October 2022, we had successfully renovated 21 houses.



Provided support for the **Mushroom Cultivation Programme** in Julok Tunong Village, resulting in successful business operations and the commencement of a second planting cycle in 2022.



Provided feeding machines and 50 fishponds to establish **Catfish Cultivation Programmes**. The business has since continued to expand in response to market demand, with plans to provide additional ponds.



Organised **awareness sessions on stunting prevention** with expert speakers.



Distributed **milk and supplementary food packages** to 1,500 people and conducted **free medical check-ups** for the residents of Gampong Lhee Village.

Addressing Local Challenges with the Food Security Programme in Riau, Indonesia

The Anambas Islands Regency, located in a geographically isolated archipelago, encounters challenges with food security due to unpredictable sea conditions which frequently disrupt transportation routes. Consequently, local communities often experience inflated prices for essential food items. In addressing this issue, South Natuna Sea Block B collaborated with the Bina Tani Sejahtera Foundation to implement a Food Security Programme. This programme was established in 2021 and now spans five villages in the Kute Siantan District.

Through the Food Security Programme, we aim to enhance the resilience of local communities by promoting independent vegetable cultivation and fostering intra-community vegetable trade. This programme aligns with the Asia-Pacific Economic Cooperation (APEC) Food Security Roadmap Towards 2030, which seeks to strengthen food security by increasing the productivity and efficiency of food systems. This programme also supports the achievement of the UN SDGs 1 and 2, aimed at eradicating poverty and hunger.

By 2022, the programme had empowered 146 women and farmers. During the implementation of the programme, approximately 270 kg of organic waste was repurposed into fertiliser and planting media. The programme also utilised plastic containers including bottles and rice bags for growing plants, contributing to a circular economy and overall waste reduction. Upon completion of this programme, local communities were able to expand their vegetable cultivation and diversify their crops to include previously unexplored varieties such as cauliflower, carrots, celery leaves, onions and other vegetables.

Supporting Youth Development in South Sumatra, Indonesia

In supporting youth development in the region, the government of Musi Banyuasin (MUBA) Regency collaborated with SKK Migas launching a youth training programme in South Sumatra. Our assets in South Sumatra Region (SSR), namely Rimau, South Sumatra Block and Corridor, provided financial support in establishing the MUBA Vocational Training Centre, in collaboration with SKK Migas and the Contractor Partnership (*Kontraktor Kontrak Kerja Sama*/KKKS) in the MUBA Regency.

We collaborated with the Department of Manpower and Transmigration and professional trainers to develop and deliver certified Oil & Gas training programmes for young people. By 2022, a number of the programme graduates had been employed by corporations, confirming the success of the programme.



MedcoEnergi received an award from the Government of the MUBA Regency in recognition of our contribution to local development

Empowering Women in South Sumatra and Madura, Indonesia

Establishing women empowerment programmes is fundamental to securing sustainable livelihoods. It provides local women with access to resources, skills and markets, contributing to economic empowerment and poverty eradication. At MedcoEnergi, we have conducted these programmes in a number of our operational areas.

We organised a business development programme for Women Farmer Groups (*Kelompok Wanita Tani*/KWT) in Giriyoso Village, Musi Rawas Regency, South Sumatra. We donated quality ginger seeds and powder grinders to enhance the production of powdered ginger in the community. In addition, we conducted business development training to assist women in developing sustainable marketing strategies to reach a broader market, utilising an online MSMEs platform.

In the same village, we established a women-run catfish cultivation programme as part of the Family Welfare Programme (*Pembinaan Kesejahteraan Keluarga*/PKK). This programme is designed to assist women in establishing businesses selling catfish in local markets, while also serving as a source of additional nutrients for children affected by stunting. In supporting this programme, we provided 200 kg of catfish and approximately 4,000 catfish seeds.

Similarly, in our Madura Offshore asset, we have been supporting a women's group in Aenganyar Village, Sumenep Regency in establishing a palm sugar business since 2018. We have provided equipment and training in production and packaging, resulting in an increase in daily production to 21 kg per day from 3 kg per day.



Promoting women's empowerment by establishing local catfish cultivation (left) and traditional palm sugar (right) businesses.

Optimising Green Open Spaces and Planting Trees in Sampang, Indonesia

Green open spaces provide numerous benefits for surrounding communities, including improving air quality, promoting physical and mental health and fostering a sense of community and social cohesion. We collaborated with SKK Migas in revitalising the Trunojoyo Monument Park in Sampang Regency, East Java.

By establishing the monument of Sampang's Zero-Kilometre and installing streetlamps, we sought to optimise the use of green open spaces in the city and revitalise the park's image and condition. In doing so, the initiative aims to attract more visitors and generate increased economic activity in the area. Responsibility for the operation and maintenance of the monument and streetlamps have been handed to the Government of Sampang Regency.



Representatives from Medco Oil & Gas Sampang and the Government of Sampang Regency.

In support of SKK Migas' Earth Day 2022 initiative, we have planted 555 Sonokembang trees (*Pterocarpus indiscus*) at the Trunojoyo Monument Park. Between 2021-2022 we have planted in excess of 3,000 trees by our Sampang asset.

Strengthening Waste Management in Tarakan, Indonesia

Effective waste management is fundamental to securing sustainable cities, as it promotes a clean and healthy environment, prevents pollution and improves the overall quality of life. At our Tarakan asset, we have collaborated with the Local Environmental Agency to establish Tarakan City's waste management programme, the Sampah Semesta (*Semua Mesti Terlibat*, or Everyone Must be Involved).

This programme, involving collaboration with local trash banks including Bais, Paguntaka and Sinar Duri, aims to convert waste into income-generating opportunities while promoting the Reduce, Reuse and Recycle (3R) principles. Paguntaka Trash Bank alone collected and managed 6,285 kg of non-organic waste, diverting the equivalent of 569 kg of waste from disposal per month, between June 2021 and May 2022.



Scaling up trash banks in Tarakan City has enabled more people to generate income from waste collection while ensuring a clean and healthy city, as seen at Paguntaka Trash Bank.

Caring for our Communities' Livelihoods

We strive to maintain positive relationships with local communities through direct engagement. All our domestic assets have been traditionally organising *iftar* (break fasting) events and religious lectures during the holy month of Ramadan. This program aims to support community members alleviating the economic impacts.

Through our Safari Ramadan programme, we have distributed food packages to communities impacted by the pandemic surrounding our operational areas.



As part of the Safari Ramadhan initiative, MedcoEnergi distributed food packages to the local communities in the Natuna Regency.

Fostering Inclusion in Chumphon Province

In November 2022, MedcoEnergi opened a sensory room at the Chumphon Punyanukul School, a school designated for children with special needs, including emotional, behavioural and intellectual disabilities, in Thailand. The room aims to provide sensory stimulation to assist students in regulating their behaviour and increasing their confidence by providing a sense of calm and comfort.

As of 2022, the project had installed two sensory objects for eye and touch balance, and is exploring opportunities to provide additional objects to the room.



Immersive sensory room at Chumphon Punyanukul School designed for children with disabilities in Chumphon Province, Thailand.

Community Development at Joint Operating Body (JOB) Tomori, Indonesia

JOB Tomori focussed on the implementation of community empowerment programmes to foster sustainable local development. To ensure the programmes align with community needs, we conducted a social mapping study in 2018 and tailored our initiatives accordingly. Several programme highlights are listed in the table below.

Education



- Providing **educational programmes** and donating **musical instruments** (*Kolintang*) to our Siboli Empowerment House
- Providing alternative **education opportunities** for customary communities and **capacity-building** for local teachers

Health



- Initiating the **Healthy Community Movement** (*Gerakan Masyarakat Sehat*) to prevent stunting and improve quality of life
- Hosting **Public Health Edu-Action** initiatives with stunting prevention workshops

Economy



- Empowering coastal communities through **ecotourism** and **creative economic initiatives**
- Supporting the development of **community skills, women and youth entrepreneurship**

Infrastructure



- Enhancing **earthquake-proof building infrastructure**
- Improving **facilities in ecotourism** areas
- Building artificial nest boxes for **sustainability agriculture**

Environment



- Promoting climate resilience in communities through the **Climate Village Programme**
- Implementing community-based ecotourism initiatives for **turtle conservation**

Disaster Response



- Implementing school-based **disaster response programmes** to prepare students and staff for emergency situations
- Building **disaster-resilient villages** to enhance community preparedness and response

The Kampung Iklim (Climate Village) Programme

In 2022, JOB Tomori supported the local government-led Climate Village Programme (Proklim) in the Banggai district, Central Sulawesi, to assist seven villages in becoming Climate Villages. Proklim is a national programme under the auspices of the Ministry of Environment and Forestry (MoEF) to engage communities and stakeholders in strengthening regional climate adaptation.

Over a period of six months, we provided technical guidance and assistance to the participating villages in collaboration with the Local Environmental Agency at the provincial level and the Makassar Research and Development Centre.



JOB Tomori provided technical guidance and support to seven villages in Central Sulawesi's Banggai district to enhance climate adaptation capabilities through Proklim.



JOB Tomori incolaboration with Muhammadiyah Luwuk University conducted eucalyptus tree planting programme.

Measuring and Evaluating Our Impact

Measuring and evaluating the impact of our programmes assists us in demonstrating value for our stakeholders and local communities. This process helps us identify opportunities for enhancement and streamline the utilisation of our resources to deliver effective and impactful community development programmes.

Social Return on Investment (SROI)

We implement a SROI framework to quantify the social, environmental and economic value of our community development programmes. The result of this framework serves as input for our decisions in designing, developing and scaling future programmes.

The SROI framework assigns a monetary value to project outcomes and has been widely used as a quantitative approach to programme evaluation. As such, it allows for a more comprehensive understanding of our programmes' outcomes beyond financial gains, including social and environmental impacts.

There are two types of SROI implementation:

1. **Evaluative**: A retrospective evaluation of results
2. **Forecast**: A prediction of the prospective value of the planned programmes, aiding in the identification of impactful indicators for measuring the success of the programmes

The following diagram illustrates the six key stages of conducting an SROI assessment.



To further strengthen our programmes' impact, we organised a two-day in-house training session, entitled "Measurement of Programme Impact Utilising the Social Return on Investment (SROI) Method". This training session was led by an SROI expert in Indonesia and attended by representatives from all of our assets and our MedcoEnergi headquarters. The training provided participants with materials on the principles, implementation stages and calculation tools of SROI.



In-house training session on SROI, led by a national SROI expert. The training session was attended by representatives from our corporate and oil & gas domestic assets.

Measuring Our Impact in Indonesia

In 2022, we expanded our evaluation of the Digital-based Smart School Programme (*Program Sekolah Pintar Berbasis Digital*) to include five schools in the Anambas Islands Regency. This initiative was established to improve digital learning practices and support long-distance learning, particularly during the COVID-19 pandemic's restrictions. Our analysis indicates that the programme generated a value of approximately IDR 2,147,364,077.70 against a total investment of IDR 627,373,000.00 from February 2021 to December 2022. Consequently, the SROI value of the programme is 3.42, indicating that each IDR 1 investment yielded benefits valued at IDR 3.42. To evaluate the programme's impact, we conducted desk-based research, interviews and focus group discussions (FGDs) with key stakeholders.

The use of paper for examinations was eliminated, minimising the impact on climate change by avoiding a significant volume of paper burning while reducing waste. Another advantage was the enhancement of students' computer skills, resulting in greater self-confidence in using computer during learning process. It is worth noting the less time required by teachers to arrange examination materials and evaluate performance.

Our efforts to evaluate and expand the programme align with the UN SDG 4 (Target 4.1, 4.3, 4.7, and 4.c), which aims to provide Quality Education for all. Moreover, the programme has fostered behavioural changes among students, from inspiring them to embrace technology in their learning to adopting environmentally-friendly waste disposal methods to promoting collective climate action.

Measuring Our Impact in Thailand

In Thailand, the SROI measured the environmental social impacts and economic value generated from our community development programmes, which was then compared with the costs spent on its operation to determine how much the project generates social outcomes for every THB 1 invested.



The **Crab Bank** in Dan Sawaee District, Chumphon Province, was established to increase crab productivity and the income of crab farmers by providing a safe environment for female crabs.

With MedcoEnergi's investment in the office construction and support in hosting knowledge-sharing sessions, the project achieved an SROI value of 18.79 in 2022 from 2018.



The **Mangrove Forest Conservation** project in Lang Suan District, Chumphon Province, was initiated to restore and conserve the mangrove ecosystem, as well as the coastal resources which local communities depend on. By restoring mangrove forests, the project promotes natural services which assist in regulating the local climate and create habitats for fish, providing benefits for local farmers.

With MedcoEnergi's financial assistance, the project achieved an SROI value of 17.18 in 2022 from 2018.



The **Hydroponic Vegetable Planting** project at Ban Hat Sairee School in Mueang District, Chumphon Province, introduced students to hydroponic farming and taught them how to grow organic vegetables for their school meals.

MedcoEnergi provided funding to help purchase the equipment and the project achieved an SROI value of 1.44 in 2022 from 2021.



Through the **Preparatory and Knowledge Increase Project**, MedcoEnergi offered tutoring services from nationally-renowned institutions to prepare students for their entrance examinations to higher education. The project was conducted in seven schools in Chonburi, Chumphon and Surat Thani Provinces, and has supported 2,852 students since 2020.

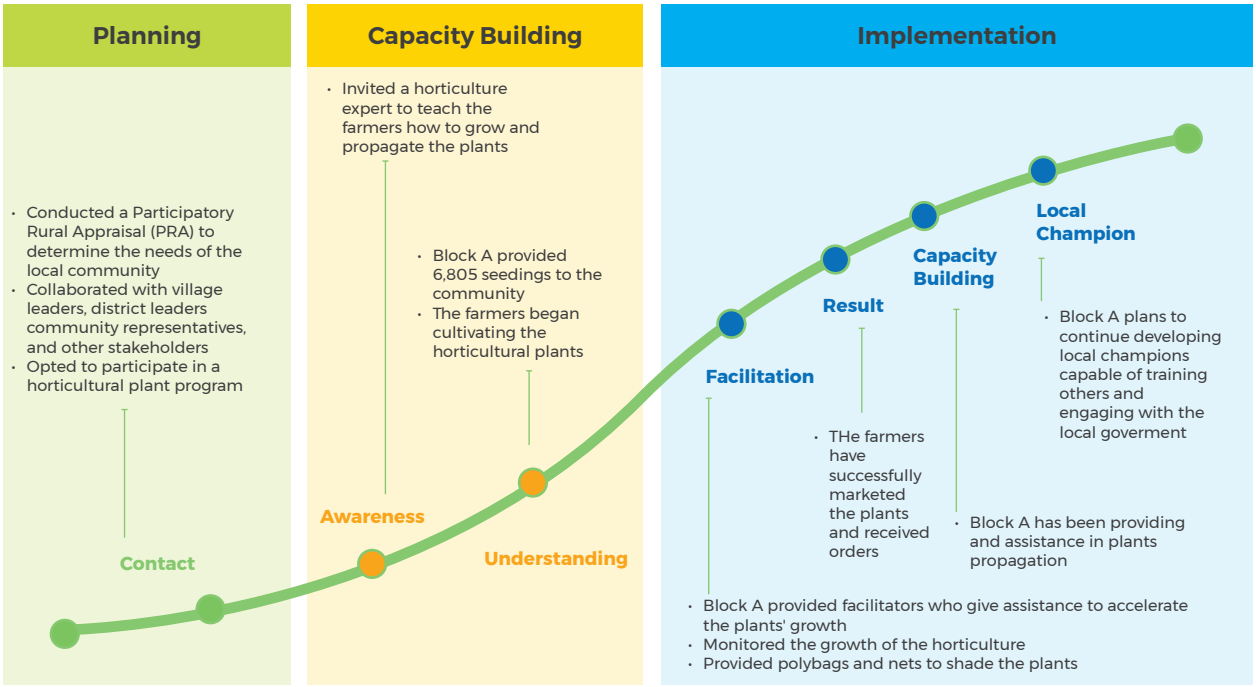
The SROI evaluation was conducted by SGS (Thailand) Limited. The SROI calculation valued the programme outcome at THB 14,459,760.00 compared to a total investment of THB 1,597,364.47. Thus, the SROI value of the programme is 9.05, indicating that with every THB 1 investment resulting in a benefit of THB 9.05.

Our efforts to evaluate and expand the programme align with the UN SDG 4 (Target 4.1, 4.3, and 4.c), which aims to provide Quality Education for all.

S-Curve

We have integrated S-Curve principles within our community engagement and development, with stakeholder engagements being exercised throughout this process. This approach maintains our strong social ties with local communities based on mutual understanding and cooperation.

The S-Curve approach guides us in developing long-term projects that create shared value with communities, ensuring the positive impact of our initiatives. With the relaxation of COVID-19 restrictions, MedcoEnergi intends to further enhance our community development programmes in the coming years. The graph below illustrates the implementation of the S-Curve approach in empowering local horticultural plant businesses in Block A.



Emergency and Disaster Relief Initiatives

Through our Medco Cares (*Medco Peduli*) programmes, we provide assistance and support to those in need, focussing on communities impacted by disasters or emergencies, including the COVID-19 pandemic, floods, landslides and earthquakes. In 2022, we supported SKK Migas' disaster relief initiatives to provide aid to those impacted by such events.

Earthquake in Cianjur

In response to the earthquake in Cianjur, West Java, we took immediate action to support affected communities. We established a healthcare post in the affected area to provide medical treatment and psychosocial support to children. Our efforts were further reinforced by MedcoEnergi volunteers who organised painting, singing and game activities for the hundreds of children affected by the earthquake.

As part of our disaster relief efforts, we also distributed aid amounting to IDR 1.1 billion in the form of tents, blankets, food packages and medicines.

Mount Semeru Eruption

In December 2022, Mount Semeru, in East Java, experienced a volcanic eruption resulting in the displacement of in excess of 10,000 people. In response to this disaster, MedcoEnergi launched the Medco Cares about Natural Disasters (*Medco Peduli Bencana Alam*) initiative, which raised IDR 225 million from our employees.

The aid collected was distributed in various forms, including medical treatment, raincoats, school equipment, hygiene kits and trash bags.

Alignment of Sustainability Initiatives with UN SDGs

The following table maps our sustainability initiatives on creating opportunities for communities against UN SDG targets. This mapping does not constitute a claim that MedcoEnergi has measured or set targets for host governments in our operational areas regarding the achievement of UN SDGs.

UN SDGs	Relevant Target	Key Initiatives
	1.4	• Business development support for local fishers • Capacity-building programme for farmers on planting and growing various plants and vegetables
	2.4, 2.A	• Distribution of food aid through disaster relief programmes • Capacity-building programme for farmers on planting and growing various plants and vegetables • Provided fishing equipment and capacity-building programme for local fisher groups to increase product volume and income
	3.3	• Capacity-building in emergency response programmes for local communities • Distribution of food supplies, medicine and vitamins • Socialisation of stunting prevention
	4.1,4.2, 4.3, 4.4, 4.7, 4.C	• Development of internet infrastructure for distance learning • Support for school renovation and provision of learning tools • Digital based Smart School Programme (*Program Sekolah Pintar berbasis Digital*) in schools
	5.5 , 5.A	• Empowerment through capacity-building programmes and equipment provision for women's groups • Small scale enterprise capacity-building for women's groups
	6.1, 6.B	• Support for providing access to clean water and relevant facilities
	7.1, 7.B	• Public Road Solar Lighting (*Penerangan Jalan Umum Tenaga Surya*/ PJUTS)
	8.3	• Provision of assistance for local business empowerment for farmers and women • Establishment of Community Learning Centre (RPIA)
	17.17	• Multiple stakeholder engagements, including with local governments, communities, NGOs and educational institutions

Action Plan

The following action plan will enable us to meet our objectives and continue creating opportunities for communities. We regularly measure, monitor and report on our progress and performance against these actions. This action plan progress report will be the final one referring to the 2018-2022 Sustainability Roadmap. Moving forward, we will focus on the 2023-2027 Sustainability Roadmap.

	Short-term Actions	Medium-to-Long-Term Actions	Status
Local Communities	Develop a grievance mechanism manual and support business processes	Socialise and implement grievance mechanisms for internal and external parties	• Monitored the received, closed and overdue grievances across all Medco Oil & Gas assets and Medco Power subsidiaries
	Develop and implement stakeholder engagement plans (SEPs) for all assets		Oil & gas assets: • Developed the 2022-2026 Strategic SEP, 2022 Work Plan and 2022 SEP for each asset • Developed Social Impact Guidelines to ensure the implementation of stakeholder engagements • Developed tactical SEPs for critical projects/issues • Developed an online Integrated Dashboard system to record engagement activities of each asset Power assets: • Developed SEP for Sumbawa Solar PV (Medco Power Solar Sumbawa/MPSS)
	Develop Social Management System (SMS) for all assets		• Site-specific SMS implementation documents are in place for all oil & gas assets • Conducted SMS socialisations at Corridor • Completed SMS monitoring for domestic oil & gas and Thailand assets • Completed capacity-building and workshop for SMS teams in oil & gas assets • Implemented SMS at MPSS
	Complete standardisation of community satisfaction survey methodology	Implement a community satisfaction survey, establish a baseline score, and determine a target score	• Developed the Community Satisfaction Survey Guideline as a reference for assets to evaluate its community development programme • Medco Power continues to incorporate questions related to community satisfaction into its Environmental and Social Impact Assessment (UKL-UPL/AMDAL) social monitoring survey.
		Achieve target community satisfaction score	

	Short-term Actions	Medium-to-Long-Term Actions	Status
	Conduct community needs mapping and determine community development pillars and strategy	Develop strategic partnerships with government and NGOs to expand the impact of existing programmes and enable synergy of community development programmes in priority pillars across all business units	• Collaborated with SKK Migas for the Safari Ramadhan programme and distributed food packages to local communities and orphanages • Developed the following partnerships for community development programmes: - Block A – Aliksa Foundation, Medco Foundation - South Natuna Sea Block B – Local government, Apedi, Kute Siantan Peduli Foundation, Air & Bambu foundation, Rumah Hati foundation, Fish seed group Anambas, Bina Tani Sejahtera, Indonesian Fishermen Association, Village Officials - South Sumatra Region (SSR) – Local government, local journalist associations, youth organisation (Karang Taruna) - East Java – Local government, Madura Development Watch NGO and BISMA NGO - Bangkanai – Village's CSR Execution Team - Tarakan – PPNI (Nurses Association), Borneo University, Paguntaka group and Women farmers group of Kampung Salak - Corridor – Local government, Dompet Dhuafa, Inagri and Rumah Zakat - Thailand – Songkla University, Chumphon Marine Fisheries Patrol unit, Kaesrat University, Chumphon Provincial Energy Office - MRPR – Pusat Studi Lingkungan Hidup (PSLH)/ Centre for Environmental Studies of the University of Riau for Livelihood Restoration Plan (LRP) implementation
	Enhance MedcoEnergi's existing employee volunteer programme and expand the programme to all business units to strengthen the company's relationship with local communities	Implement a broader employee volunteer pilot programme Review employee volunteer pilot programme results and expand the programme to other asset	• Emergency disaster relief (*Medco Peduli Bencana Alam*) - Construction of five temporary housing units for victims of the Mount Semeru eruption - Donations for Walandano Village Library in Donggala Regency, and for the earthquake in Cianjur • Ramadan and Eid al-Adha donations from MedcoEnergi management and employees
Infrastructure	Monitor budget and the number of people affected by the development and maintenance of project infrastructure		• Developed the SROI guideline, as a reference for oil & gas assets in measuring programme impact • Conducted SROI training for asset teams • Conducted SROI self-assessment for distance learning infrastructure in South Natuna Sea Block B
Security	Review security provider company compliance against Police Regulation 4/2020 regarding self-defence security (*Pengamanan Swakarsa*) for all assets	Complete security risk/threat assessment (SRA) for all assets	Oil & gas domestic assets: • Developed Asset Security Management Plan • Completed the Security Risk Assessment for all assets as preparation for the upcoming 2024 General Election in Indonesia • Conducted capacity-building regarding Security-based Intelligence Power assets: • Finalised Security Management System of MPSS • Conducted security assessment and audit
Key Stakeholder Engagement	Strengthen internal partnerships between business units		• A collaboration between Medco Oil & Gas and the Medco Foundation for several activities for emergency disaster relief (*Medco Peduli Bencana Alam*) and for Eid al-Adha donation distribution • Joint task forces between oil & gas and power for COVID-19 and Work from Office Resumption



Grissik Facilities, Corridor, South Sumatra, Indonesia

Chapter #9

Empowering Our People

124 Approach, Commitment, and Goals
125 Our Employees
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136 Action Plan

The leadership of and by our employees is one of MedcoEnergi's Three Pillars of Sustainability. We recognise that our people are our most valuable asset. Through various development programmes and initiatives, we are committed to creating a diverse and supportive work environment to nurture our talent pipeline and ensure equal opportunities for all.

We maintain a fair and inclusive working culture by eliminating bias and discrimination through the practices and policies of our human resources management. In doing so, we align ourselves with international best practice guidelines, including the International Labour Organization (ILO) Declaration on Fundamental Principles and Rights at Work.

Approach, Commitment, and Goals

Our Corporate Values of being professional, ethical, transparent and innovative are integral to our success. They shape our culture and help us realise our vision and mission. As part of our annual performance review process, we assess how our employees have embedded and demonstrated our Corporate Values in their daily work.

We acknowledge that diversity fosters inclusivity and enriches the Company with unique perspectives. Our commitment to employing a diverse workforce is reflected in our pledge to recruit, train and reward our employees based on their skills and competencies, regardless of ethnicity, race, skin colour, religion, gender, age, marital status and nationality. In upholding our people's rights to a safe workplace, we prohibit discrimination.

We continually strive to create a work environment where employees are valued and engaged by providing them with career advancement opportunities, skill development courses and performance-based remuneration. As part of our Human Resources (HR) system, we have developed policies, guidelines and procedures, including our Labour Management Plan, Corporate Career Management Policy and Mentoring Guidelines, to provide our employees with guidance, support and protection.

We are dedicated to ensuring that women enjoy equal opportunities and are empowered to advance their careers within our Company. Currently, we have two female Board members and it represents 15.4% of total the MedcoEnergi Boards members. In 2022, we observed an increase in female participation in our programmes. Of our recent graduates in the Petroleum Engineering Fresh Graduate Programme, 25% were women and our Finance Apprentice Acceleration Programme (FAAP) is composed entirely of female participants.

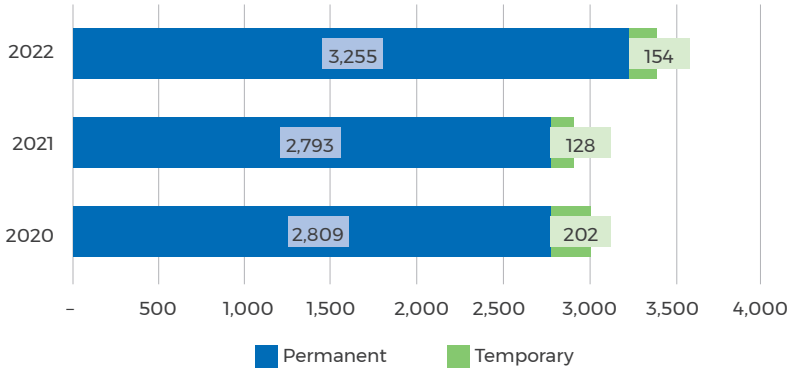
MedcoEnergi upholds human rights principles, and we strictly comply with our host government's labour laws and regulations. We do not employ child or forced labour and require our business partners to follow suit. Furthermore, we recognise and respect our employees' right to join and form trade unions and organisations.

Our employee remuneration is higher than the provincial minimum wages (*Upah Minimum Propinsi*/UMP) in Indonesia. In 2022, the lowest level of remuneration for our full-time, permanent employees in Jakarta was 14% higher than the provincial minimum wage mandated by the DKI Jakarta Government. Our Corporate Career Management Policy guarantees equal pay for the same position regardless of gender.

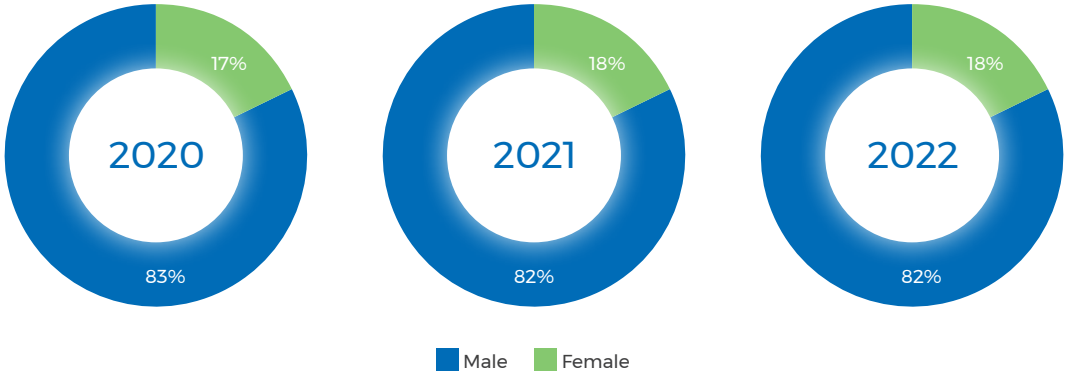
Our Employees

As of 2022, MedcoEnergi had 3,409 employees[1], of which 18% were women. We recorded an increase in new personnel in 2022 due to the integration of our recently acquired Corridor asset.

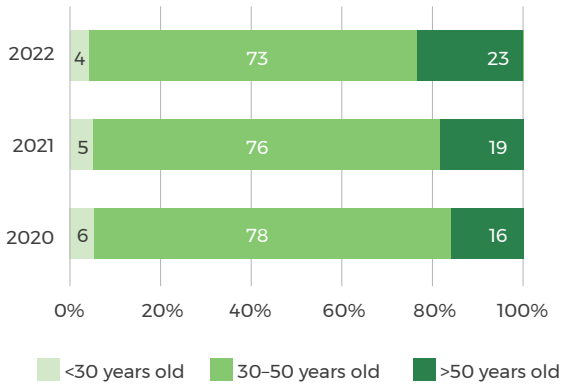
Employee Numbers in Oil & Gas and Power Based on Employment Contracts



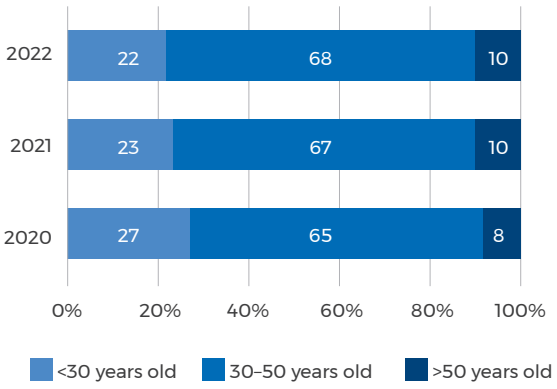
Percentage of Employees in Oil & Gas and Power Based on Gender



Percentage of Employees in Oil & Gas Based on Age Group



Percentage of Employees in Power Based on Age Group

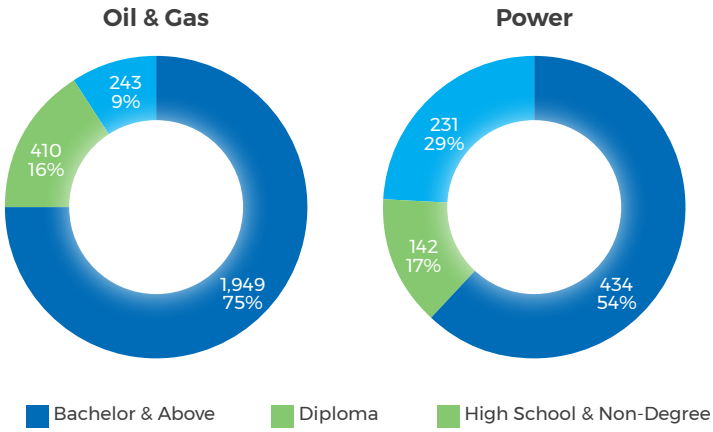


[1] Employees' movement to MedcoEnergi's entities outside the assets assured by KAP PSS - EY are not included in the calculation.

Employee Numbers in Oil & Gas and Power Based on Geographical Location



Number and Percentage of Employees in Oil & Gas and Power Based on Educational Level in 2022



Employee Numbers in Oil & Gas and Power Based on Position in 2022

	Senior Vice President (VP) & VP	Senior Manager	Manager	Superintendent & Supervisor	Staff
Oil & Gas	20	66	243	428	1,845
Power	10	10	20	6	761
Total	**30**	**76**	**263**	**434**	**2,606**

Initiatives to Empower Our People

Our Integrated Talent Management aims to provide a cross-functional framework to offer optimal support for our employees, from workforce planning to employee engagement and retention. This framework has assisted us in designing our programmes and initiatives to develop, empower and retain our employees.

MedcoEnergi Integrated Talent Management



In 2022, our focus was on aligning our recently acquired Corridor asset's HR management systems with our own. We have continued to elevate our programmes and initiatives, aimed at enhancing our technical and leadership capabilities to maintain business sustainability and continuity. Additionally, we have upgraded the quality of our stakeholder engagements to promote industrial peace.

Talent Acquisition

Maintaining a strong talent pipeline to staff our operations is vital for our success. In 2022, we continued our talent acquisition programmes, particularly for newly commissioned projects, including our Sumbawa PV and Ijen Geothermal projects.

We strive to maintain gender diversity and prohibit discrimination during the hiring process, as stipulated in our Corporate Recruitment Guideline. Of our new hires in 2022, 20% were women.

Fresh Graduate Programmes

We conduct the MedcoEnergi Fresh Graduate Programmes to attract new talent into the industry. These programmes aim to provide fresh graduates with structured learning, hands-on project experience and continuous feedback through our mentoring system. In 2022, we conducted a number of these programmes, including:

- **Finance Apprentice Acceleration Programme** (FAAP), which we expanded to Medco Power. This Programme aims to promote finance-based roles within the oil & gas and power industry.
- **Medco Oil & Gas and Medco Power Petroleum Engineering Fresh Graduate Programme**, where we provide mentoring, technical training and conduct knowledge-sharing sessions.
- **Oman Fresh Graduate Programme**, where we initiated Heemam: The National Youth Development Programme and conducted Virtual International Development Assignment (VIDA) for our young professionals in Oman.

Performance Management

We conduct regular and annual performance reviews of our employees under our Performance Management System (PMS). This enables our employees to identify their key strengths and areas for improvement and promote an open feedback culture in our Company.

Our employees engage in performance planning discussions with their line managers at the beginning of each year. These discussions are followed by mid-year and annual performance reviews utilising the appraisal forms in our HR system.

As part of the PMS, we incorporate sustainability-related key performance indicators (KPIs) into our Team Performance Contracts (TPCs). We align TPCs outcomes with our reward programmes, including salary reviews and performance incentives.

Learning and Development

We empower our employees by delivering training and skill development courses appropriate to their individual needs. We also provide opportunities and guidance to advance their careers.

In 2022, we offered 1,131 training courses, an increase from the previous year, and invested approximately USD 3.78 million in employee training.

Training Investment (USD)	Participants	Total Mancourse	Training Hours
3,782,500	7,503	8,226	78,841



New talents from MedcoEnergi Fresh Graduate Programmes

Technical Capacity Enhancement

Technical Development Committee

MedcoEnergi strives to enhance our employees' technical capacity via our Technical Development Committee (TDC). Established in 2020, the TDC is a committee selected by the Board of Directors (BoD) to drive the skill development agenda and facilitate networking among disciplines.

The TDC is assigned to provide directions in the following areas:



Technical Competency Development



Career Development



Staffing and Deployment



People Movement Process (e.g cross-functional and expatriation assignments)

Operational Excellence

We implement our Operational Excellence (OE) framework to maintain the reliability, safety and efficiency of our operations. This framework encompasses Health, Safety and Environment (HSE), Asset and Operating Integrity, Operating Efficiency and Cost Management. Further details regarding the OE framework can be found on Chapter 10 Advancing Our Health & Safety Culture page 141.

As part of the OE framework, we implemented programmes to maintain our license to operate in 2022. These included:

- Establishing a forum to review the Training and Certification Matrix and identify new industry-specific regulatory requirements and standards, as well as challenges and issues. The outcome of the forum is a Training Needs Analysis which assists us in maintaining 100% regulatory compliance.
- Partnering with the Oil & Gas Human Resources Centre (Pusat Pengembangan Sumber Daya Manusia Minyak dan Gas Bumi/PPSDM Migas) to ensure all Medco Oil & Gas employees have the latest work licenses required for their positions.

Technical Capacity Building Programmes and Initiatives

We continue to launch technical enhancement programmes to fulfil current business requirements and upskill our workforce to meet our business objectives. The programmes and initiatives conducted in 2022 included:

- Batch 2 of the **Medco Project Management Academy** (MPMA), which aims to elevate project managers to become project leaders.
- The **Subsurface Academy**, to enhance the performance of subsurface leaders in delivering and managing subsurface field development.
- Phase 2 of the **Technical Competency Management System** (TCMS) in partnership with Petroskill.
- **Competency matrix development** for technicians and operators at Medco Power's subsidiaries, namely PT Energi Listrik Batam (ELB) and PT Mitra Energi Batam (MEB).
- **Securing 111 certifications** for Medco Power from various institutions such as from the Directorate General of Electricity of the Ministry of Energy and Mineral Resources (Direktorat Jenderal Ketenagalistrikan, Menteri Energi dan Sumber Daya Mineral/DJK-ESDM), the National Professional Certification Agency (Badan Nasional Sertifikasi Profesi/BNSP), and the Oil & Gas Professional Certification Institute (Lembaga Sertifikasi Profesi Minyak dan Gas/LSP Migas Cepu).

Initiatives To Support Energy Transition

One of our key efforts in supporting the implementation of our Climate Change Strategy involves enhancing our organisational capability to accelerate energy transition. In 2022, we focussed on developing our capability in the following areas:

Gas as a transitional energy source

Geothermal, solar PVs, liquefied natural gas (LNG) and hydrogen

Carbon Capture and Storage (CCS)

Our climate-related capacity building programmes encompass a range of activities, including:

- A "Lead & Inspire" webinar on climate change, featuring industry experts sharing their experiences and insights on our Climate Change Strategy.
- A Carbon Capture, Utilisation and Storage (CCUS) Training Programme designed for our engineers.
- Renewable energy programmes offered as part of the Inclusive Sustainable Economic Development (ISED) project in collaboration with the Indonesian Ministry of National Development Planning and GIZ[1].

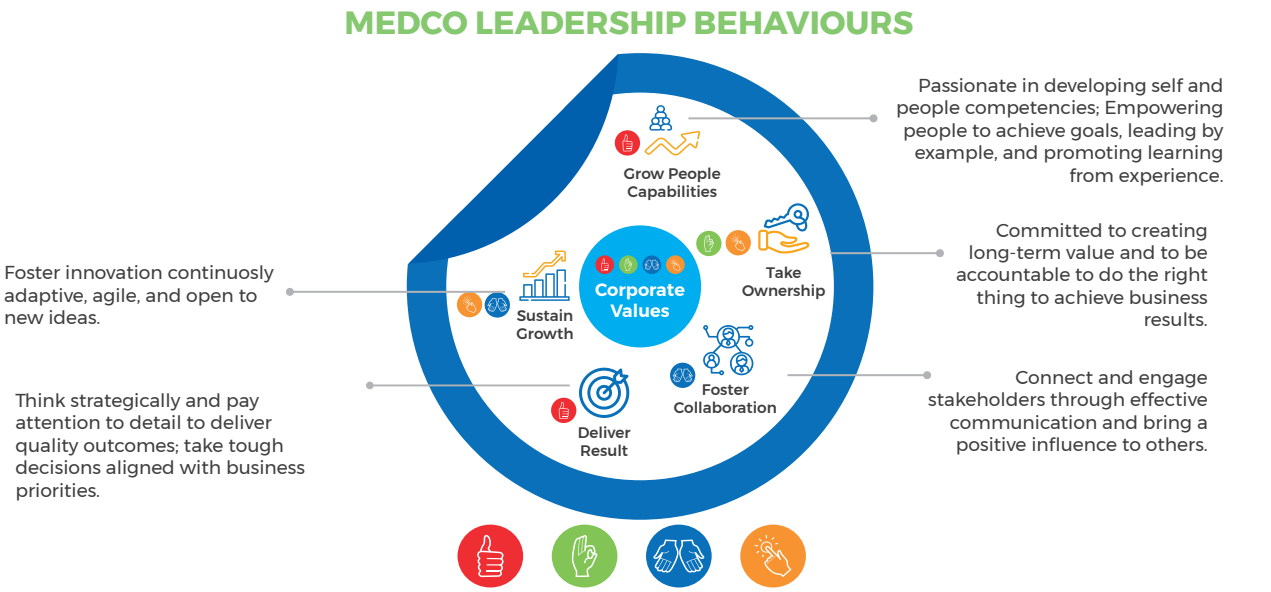
Strengthening our Leaders' Pipeline

Strong leaders are fundamental to delivering excellence and securing MedcoEnergi's business continuity. We equip future leaders within the Company with the necessary skills to assist in achieving our long-term objectives.

Medco Leadership Behaviours (MLB)

We recognise that our workforce consists of strong talents from diverse backgrounds, united by our Corporate Values. With our growing portfolio, it is critical to ensure that we equip and support our employees with the necessary tools to become strong leaders in the workplace. To ensure this, we have formulated Medco Leadership Behaviours (MLB), which comprises a set of leadership behaviours expected from employees across all levels.

The MLB was launched during MedcoEnergi's People Day in early 2023.



Live the values & behaviours together, reaching new heights!

[1] GIZ (Deutsche Gesellschaft für Internationale Zusammenarbeit/German Corporation for International Cooperation) is a German government-owned development agency that operates in over 120 countries worldwide, including Indonesia.

Leadership Development Programme

We continued our Medco Senior Leadership Development Programme (MSLDP), in partnership with Harvard Business Publishing, a subsidiary of Harvard Business School. We completed the class-centred learning modules in 2022 and initiated the Business Impact Projects (BIP) in the first quarter of 2023.

In addition to MSLDP, we have also completed our Leadership Essential Development (LEAD) programme. This programme aims to provide leaders (supervisors, managers and senior managers) at MedcoEnergi with a targeted curriculum to strengthen their leadership skills in alignment with our Corporate Values. Between 2021 and 2022, we delivered 12 LEAD training programmes for over 200 participants.





We organised a Critical Thinking training session as part of our LEAD program

Advancing Business Sustainability through our Sustainable Performance Improvement Initiatives

We have continued our initiatives from the Sustainable Performance Improvement (SPI) Project, launched in 2020 in partnership with Kearney, a leading global management consulting firm.

Strengthening Capabilities in the South Sumatra Region (SSR)

MedcoEnergi has completed the reorganisation of operations and finalised our SPI Maintenance workstream in the South Sumatra Region (SSR), encompassing South Sumatra Block, Rimau, and Lematang.

We have also implemented a series of initiatives aimed at enhancing SSR's capabilities. This includes delivering the Medco LEAD series in six batches for supervisors in SSR, conducting a mentoring programme for third-party operators and concluding the Operations Apprentice Development Programme (OADP) to bolster operations in SSR.

MedcoEnergi's OADP is a 12-month training programme designed to develop fresh graduates to become skilled operators and frontline maintenance professionals for our oil & gas facilities. The programme involves HSE inductions, practical and on-the-job training at our assets in South Sumatra. During the final phase of the OADP, participants undergo a competency assessment to evaluate their performance. We anticipate that the programme will enhance MedcoEnergi's operational capabilities and increase competency to the highest safety and operational excellence standards.




Our Operations Apprentice Development Programme aims to develop our talent pipeline and empower future operators in the South Sumatra Region.

Shared Service Centre (SSC)

In 2022, we launched an initiative to improve our Shared Services. The objective is to examine our cost structures, enhance our operating methods and fundamentally reset our cost base. The initiative aims to consolidate resources for better synergy, standardise processes and governance and improve communication and collaboration between service providers and users.

The SSC initiative includes service providers, including Human Resources & General Services (HRGS), Digital Information Technology (DIT), Supply Chain Management (SCM) and Finance. The completion of the SSC is scheduled for the end of 2023.

New Ways of Working (NWOW) Implementation

Drawing on experiences from the pandemic, we have implemented the New Ways of Working (NWOW) to maintain business continuity while providing support for our employees to create a work-life balance.

In 2022, we established and implemented the NWOW Policy. The Policy stipulates that working from office (WFO) is the Company's default working mode with a flexibility provided for our employees to work from home (WFH). Those in certain levels and positions requiring a dedicated workspace are mandated to undergo full WFO, given the nature of their work and business needs. The new Policy aims to improve business productivity and individual performance by empowering employees, fostering cooperation and collaboration and upholding a safe and healthy work environment.

Succession Management

At MedcoEnergi, we conduct Talent Mapping for managerial levels and above to identify high-performing individuals. Through our Individual Development Plan (IDP), we aim to support these outstanding personnel in their careers. In doing so, we have prepared a succession strategy to establish a strong talent pipeline within the organisation.

Engagement and Retention

Promoting Industrial Peace

MedcoEnergi is dedicated to maintaining harmonious and healthy relationships with our employees based on mutual respect and shared goals for long-term success. We acknowledge that freedom of association and expression are important components of healthy industrial relations, and 98.5% of our workers are covered under our collective bargaining agreement.

In 2022, we renewed the Collective Labour Agreement (CLA) in Bangkanai and established CLAs in Sampang, Block A, and Mitra Energi Batam (MEB). Additionally, we established a new Company Regulation for PT Medco Cahaya Geothermal and updated the Company Regulation in six Medco Power subsidiaries.

Our Industrial Relations team continues to foster strong relationships with our employees through proactive engagement initiatives. Among these are our Quarterly Bipartite Meetings and Industrial Relations Forum, which we conduct with labour unions. In 2022, we hosted our Quarterly Bipartite Meetings with labour unions, attended by representatives from the corporate level, our oil & gas domestic assets and Medco Power and its subsidiaries.



At the Industrial Relations Forum in 2022 we discussed best practices in promoting and maintaining healthy industrial relations.

In promoting transparency and ensuring that employees are aware of their rights and obligations, we distributed the employee handbook for our international assets in Thailand in 2021, while for Singapore and Oman in 2022.

Employee Retention

Employee retention is essential in securing the long-term sustainability of our Company. We aim to retain our talented and dedicated employees by fostering a culture of inclusivity, excellence and innovation. As such, we are committed to providing a supportive workplace environment, leadership and technical training programmes, opportunities for professional development and competitive compensation and benefits packages.

Aligning Corridor's Human Resources (HR) Management Systems



We have extended the Medco 101 Training to introduce MedcoEnergi's management systems to managers and supervisors at Corridor.

As part of Corridor's integration, we have implemented the Medco Oil & Gas Enterprise Resource Planning (ERP) systems, consisting of SAP and Business Process Management (BPM). We also organised workshops to socialise MedcoEnergi's HR system, encompassing performance management, timesheets and payroll, a month after the acquisition in March 2022. These aim to streamline the integration process and support Corridor employees in joining the organisation.

In the process of acquiring new assets, it is important that we provide adequate support to leverage our new colleagues' expertise within our organisational structure. In 2022, we successfully onboarded more than 400 Corridor personnel into the integrated Medco Oil & Gas Organisational Structure. This process utilised our Functional Excellence framework and was completed in three waves over seven months. We also initiated the alignment of Corridor's HR-related processes, procedures and systems with our own. The next step will be to relocate the office to the Energy Building, due to be completed in 2023.

Our goal is to minimise potential disruptions to our employees when we acquire new assets, such as Corridor. To achieve this, we promptly communicate the acquisition to our employees once an acquisition is formally finalised and signed.

A key success factor in this timely integration is the support from the Integration Management Office (IMO) team. The IMO was tasked to develop a robust plan for managing integration activities and implement the Change Management initiatives to ensure a smooth integration. Examples of these initiatives include:



Leadership Meetings



Agent of Change Selection



Informal Forums



Function's Town Halls



Organisation Announcements



Team Meetings



Job Handover



Training



Socialisation



Newsletters

Alignment of Sustainability Initiatives with UN SDGs

The following table maps our sustainability initiatives for empowering our people against UN SDG targets. This mapping does not constitute a claim that MedcoEnergi has measured or set targets for host governments in our operational areas regarding the achievement of UN SDGs.

UN SDGs	Relevant Targets	Key Initiatives
	4.3	• Technical Development Committees (TDC) • Mentoring programmes • Talent Mapping and Succession Planning Programme • Medco Senior Leadership Development Programme (MDSLP) • Leadership Essential Development Programme (LEAD) • "Lead & Inspire" webinar series
	5.1, 5.5	
	8.2, 8.5, 8.6, 8.8	• Collective Labour Agreements (CLA) • Sustainable Performance Initiatives (SPI) • New Ways of Working (NWOW) • Employee Training
	10.2, 10.3	• Development of HR policies and guidelines • Salary grade entitlements • Benefit alignment
	16.b	• Industrial relations engagement with labour unions • Collective Labour Agreements

Action Plan

The following action plan will enable us to meet our objectives and continue empowering our people. We regularly measure, monitor and report on our progress and performance against these actions. This action plan progress report will be the final one referring to the 2018-2022 Sustainability Roadmap. Moving forward, we will focus on the 2023-2027 Sustainability Roadmap.

	Short-Term Actions	Medium/Long-Term Actions	Status
Diversity	Establish a diversity and anti-discrimination policy for MedcoEnergi which complies with International Labour Organization (ILO) Conventions and local laws		Established a diversity and anti-discrimination policy for MedcoEnergi in compliance with ILO conventions and national laws, and incorporated them within our new Code of Conduct and Statement of Adherence (SoA) from our employees
		Revise the MedcoEnergi Human Resources manual and/ or guidelines to clarify the Company's standards and expectations on diversity and discrimination	Diversity and anti-discrimination have been stated in the Corporate Career Management Guideline, Corporate Recruitment Guideline, and Medco Power's Recruitment Guidelines
		Set diversity-related targets to ensure the successful implementation of the policies	Continued regular monitoring of diversity performance, maintaining gender diversity
Employment	Establish MedcoEnergi policy on the hiring of local community members		Policy on the hiring of local community members is in place for Block A and MRPR Maintained the number of local recruitment based on the 2022 target and continued regular monitoring



Regular equipment monitoring as part of process safety implementation

Chapter #10

Advancing Our Health and Safety Culture

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We are dedicated to protecting the health and safety of our employees and business partner. This is underpinned by our Health, Safety and Environment Management Systems (HSEMS) and Operational Excellence (OE) framework.

Approach, Commitment, and Goals

MedcoEnergi considers the health and safety of our employees and stakeholders to be an integral component of our overall sustainability. We believe that all work-related incidents, injuries, occupational illnesses and Process Safety Events (PSEs) are preventable. Consequently, we are committed to complying with the applicable laws and regulations of our host governments in the areas in which we operate, and aligning with industry best practices and international standards. MedcoEnergi's Health, Safety and Environment (HSE) Policy outlines our commitment to protecting our employees and upholding a strong HSE leadership within our organisation.

We are continually strengthening our safety culture with the goal of achieving zero incidents, injuries and illnesses in our operations and offices. We regularly establish and monitor HSE goals and performance, and provide training to all employees, contractors and neighbouring communities. We also have designated roles and responsibilities within our Corporate HSE Governance to oversee and implement HSE procedures and review performance.

Given the nature of our operations, it is essential to manage hazards which may compromise our employees' health and safety. These hazards include exposure to toxic chemicals, fires and explosions, equipment failure and fatigue. We are constantly evaluating our processes and developing strategies to minimise potential hazards and risks. Our oil & gas assets adhere to the MedcoEnergi Hazard Identification and Risk Assessment process, which aligns with ISO 45001:2018. Similarly, our power assets follow the Hazards Identification Risk Assessment and Determine Control (HIRADC) to identify and mitigate physical, chemical, biological and ergonomic hazards.



Grissik Facilites, Corridor, South Sumatra, Indonesia.

Operation Excellence

Our robust Operational Excellence (OE) framework provides a systematic and collaborative approach to support the safety, reliability and efficiency of our operations. This framework's objective is to deliver excellence in the safe and efficient production of hydrocarbons, a key component in realising MedcoEnergi's vision to become the Energy Company of Choice. It ensures the consistent delivery of HSE, Asset and Operating Integrity, Operating Efficiency and Cost Management performance improvements through organisational learning, knowledge sharing and the application of best practices utilising the Plan-Do-Check-Adjust (PDCA) cycle.



Our commitment to OE is evident from our progress in 2022. We completed our Strategic Improvement Plan (SIP), launched OE awareness campaigns and achieved a Maturity Level 3 for our domestic assets through the OE Self-Assessment. This level indicates that our OE implementation is documented and effectively implemented, and requires us to incorporate leading practices into our operations, including:

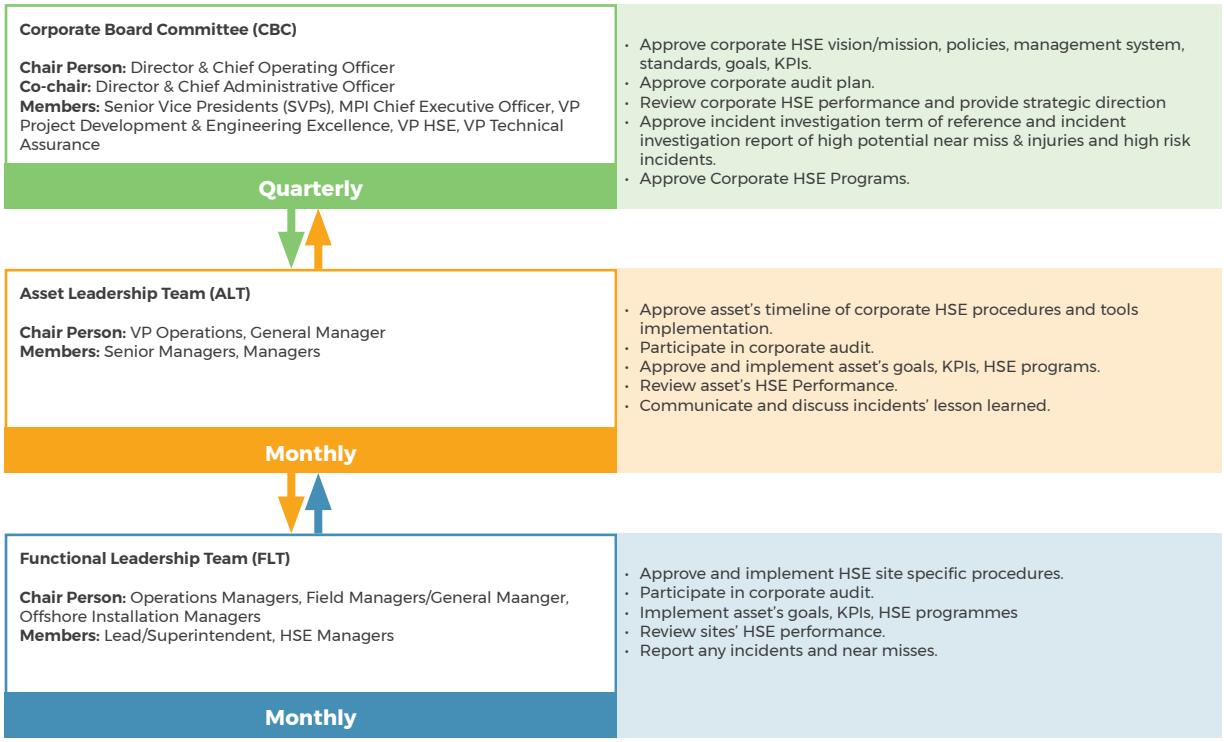
- **Production Monitoring and Optimization**: Our effective production volume management has earned MedcoEnergi (Onshore Asset, Corridor Asset and East Java Asset) an exceptional distinction from SKK Migas for our Quantity Assurance System in the adoption/piloting phase.
- **Effective Integration and Regular Updating**: We ensure that our strategic planning process, cost optimisation and Long-Term Plan (LTP) are effectively integrated and annually updated. Our monthly cost performance report generates and implements regular forecasts.
- **HSE Supervisory Checklist (SCL)**: We efficiently manage the HSE SCL as a site leadership tool to include tracking, weekly planning, review and communication.
- **Procure to Pay Process**: Our Supply Chain Management (SCM) utilises the Procure to Pay Process to streamline our procurement practices with our business partners.

Our awareness campaigns include our international oil & gas assets and power businesses, with a focus on OE implementation. This involves identifying and addressing gaps to reach the defined Maturity Level target.

Our Health, Safety, and Environment Management System (HSEMS)

At MedcoEnergi, we use our Health, Safety and Environment Management System (HSEMS) to systematically identify, assess, control and monitor operational HSE risks to our business, employees and the environment. We require our contractors and business partners to adhere to the HSEMS in order to uphold our safety culture.

Our Corporate HSE Governance ensures the effective communication and implementation of the HSEMS across our business. Roles and responsibilities are outlined below:



We have developed our HSEMS in alignment with the ISO 45001:2018 for Occupational Health and Safety (OHS) Management System and the ISO 14001:2015 for Environmental Management System. The ISO standard represents globally-recognised best practices for companies to provide reliable and safe workplaces and enhance OHS performance. We have obtained and maintained the ISO 45001:2018 and the ISO 14001:2015 certifications. A list of our certified oil & gas and power assets is on page 67 of this report.

Our HSEMS complies with Indonesian Government Regulation No. 50/2012 on the Implementation of the OHS Management System and the Ministry of Energy and Mineral Resources (MEMR)'s Safety Management System for the Oil & Gas Industry (*Sistem Manajemen Keselamatan Migas*/SMKM).

Hazard Identification and Implementation of Associated Controls

Hazard identification is a critical element in maintaining the effectiveness of our HSEMS. In 2022, we continued to implement our Hazard Identification and Implementation of Associated Controls programme.

To guarantee the safety of our operations and facilities, we conducted a revalidation of our Hazard and Operability (HAZOP) study for our onshore facility in Block A, offshore facilities in Belanak and Kerisi, as well as our facilities in Sumpal and Suban from our newly acquired Corridor asset. Follow-up actions developed from the study's findings are regularly monitored by the leadership team to ensure their successful completion.

Asset Integrity

In 2022, our onshore facilities completed a flow line replacement programme with the objective of minimising the occurrence of PSEs and maintaining the flow line's asset integrity. The major replacement was conducted in Rimau and the South Sumatra Region (SSR) and resulted in the reduction of PSEs below the threshold of Tier-2 events by 30%.

Contractor HSE Management System

Managing contractors is a critical aspect of our business, as they constitute the majority of MedcoEnergi's workforce. Our Contractor HSE Management System (CHSEMS) provides guidance and ensures that contractors meet our HSE expectations, standards and criteria.

We made a concerted effort in 2022 to strengthen our contractors' commitment through CHSEMS implementation. We conducted evaluations of our contractors' performance to obtain feedback and ensure consistent implementation of the CHSEMS across our assets.



Operator in Grissik, Corridor, South Sumatra, Indonesia

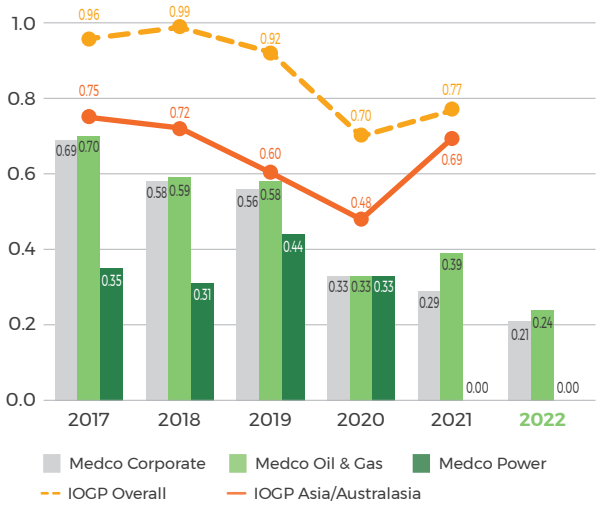
Health and Safety Performance

We monitor our OHS performance, track key performance indicators (KPIs) to identify areas of improvement and ensure the effective implementation of our programmes. We also continue to improve our Total Recordable Incident Rate (TRIR) for both Medco Oil & Gas and Medco Power, and maintain rates consistently below the TRIR of the International Association of Oil & Gas Producers (IOGP) Asia/Australasia.

Our consolidated TRIR decreased from 0.29 in 2021 to 0.21 in 2022 and we achieved zero fatalities for the second consecutive year.

The graph below displays our OHS performance with the most recent benchmarking[1]:

Oil & Gas and Power: TRIR 2017-2022



Our HSE performance is in the tables below.

Oil & Gas	2020	2021	2022
Number of Fatalities	-	-	-
Fatality Rate	-	-	-
Lost Time Incident Rate[2,3]	0.09	-	-
Total Recordable Incident Rate[3]	0.33	0.39	0.24
Occupational Disease Rate[3]	-	-	-
Percentage of Incidents Involving Contractors	100%	100%	100%

Power	2020	2021	2022
Number of Fatalities	1	-	-
Fatality Rate	0.14	-	-
Lost Time Incident Rate[2,3]	0.11	-	-
Total Recordable Incident Rate[3]	0.33	-	-
Occupational Disease Rate[3]	-	-	-
Percentage of Incidents Involving Contractors	100%	-	-

Process Safety Performance

MedcoEnergi's process safety include standards and procedures, equipment testing and certification, employee competency, contractor requirements, safety cases, a two-barrier policy, incident response and recovery mitigation plans. We utilise these parameters to assess our Asset and Operating Integrity and evaluate our performance to reduce PSEs.

In 2022, we sought to enhance our Asset and Operating Integrity as part of our OE implementation. We evaluated the effectiveness of our process safety implementation in our oil & gas domestic assets and extended the implementation to our power and international assets.

Process Safety Event (PSE)	2020	2021	2022
Tier 1[4] PSE	-	-	1
Tier 1 PSE Rate per 1,000,000 Work Hours	-	-	0.04
Tier 2[4] PSE	2	3	1
Tier 2 PSE Rate per 1,000,000 Work Hours	0.09	0.19	0.04

The Tier 1 PSE in 2022 was caused by gas release from subsea equipment due to asset integrity issue. Investigation was completed, recommendations have been followed up to prevent any reoccurrence.

[1] The number of recordable injuries (fatalities + lost workday cases + restricted workday cases + medical treatment cases) per million hours worked. Source for benchmarking: Data Series International Association of Oil & Gas Producers (IOGP) Safety performance indicators - 2021 data, issued in June 2022.
[2] Lost Time Incidents including Fatality, Permanent Disabilities, and Lost Workday Case.
[3] Workforce includes employees and contractors. Incidents include both injuries and illnesses.
[4] The definition of Tier 1 and Tier 2 PSEs refers to American Petroleum Institute Recommended Practice Process Safety Performance Indicators for the Refining and Petrochemical Industries; Second Edition.

Key Programmes and Initiatives

We demonstrate our commitment through various HSE programmes and initiatives developed for our employees, business partners and stakeholders.

Incident Prevention Initiatives

MedcoEnergi's HSE Rules underpin our efforts to reduce and prevent workplace injuries and incidents. We strive to identify hazards, define risk levels and implement effective risk control measures across our operational areas. We also provide HSE training, organise awareness campaigns and hazard inspections and encourage reporting of unsafe conditions and actions through our Safety Card. These ensure the continued enhancement of our safety performance.

MedcoEnergi's Golden and Life-Saving Rules

Two fundamental rules form the foundation of our safety culture: MedcoEnergi's Golden Rules and Life-Saving Rules (LSR). Our Golden Rules ensure that work is conducted appropriately and safely to achieve our goal of zero accidents. These are complemented by our Life-Saving Rules (LSR), which outline 11 simple life-saving actions to prevent work-related accidents and fatalities. Our new improved LSR in 2022 was written from an employee's perspective to highlight activities that constitute the greatest risk of fatalities and the accompanying life-saving actions individuals can take to mitigate them. These rules aim to promote a safety culture that values proactive action to prevent workplace incidents.

11 Life-Saving Rules

Fit for Duty
Be in a state to perform work safely.

Work Authorization
Work with a valid work permit when required.

Line of Fire
Keep yourself and others out of the line of fire.

Bypassing Safety Control
Obtain authorisation before overriding or disabling safety controls.

Energy Isolation
Verify isolation and zero energy before work begins.

Confined Space
Obtain authorisation before entering a confined space.

Hot Work
Control flammables and ignition sources.

Safe Mechanical Lifting
Plan lifting operations and control the area.

Working at Height
Protect yourself against a fall when working at height.

Ground Disturbance
Obtain authorisation before commencing ground disturbance activity.

Driving
Follow safe driving rules.

> "Everyone must be a Leader in HSE"

3T GOLDEN RULES

1 **To Know the Job**
Employees shall know and understand about the work steps to do before start working.

2 **To Know the Hazards**
Employees shall be aware of and understand the potential hazards that may occur in each work step so that employees can be more careful in their duties. This potential hazard includes Health, Safety, & Environment (HSE) aspects.

3 **To Know the Risk Control**
Employees shall know and understand how to control and reduce the risks of their work. The risk control can be engineering, administration, equipment.

HSE Campaigns and Webinars

We organise HSE campaigns to foster a strong safety culture and encourage healthy lifestyles. Our HSE communication strategy involves the use of printed and electronic media to launch the HSE Bulletin and poster campaigns. Our campaigns aim to present critical safety information in a visually-engaging manner to our employees and business partners.

We also conduct HSE webinars covering topics from driving and physiological safety to smart data visualisation. These webinars are designed to enhance the knowledge and skills of our employees to maintain a safe and healthy work environment and lead healthy lifestyles beyond the workplace.



MedcoEnergi's HSE's Line of Fire poster (left) and Driving Safety webinar (right) are part of the Company's comprehensive approach to promoting a safe and healthy work environment.

The Safety Leadership Programme

We implement our Safety Leadership Programme to minimise workplace incidents and maintain compliance with our safety management systems, procedures and protocols. As part of the Safety Leadership Programme, we appoint Safety Leaders on a weekly basis from our employees or contractors to promote our safety culture and monitor compliance.

The primary objective of a Safety Leader is to ensure that safety is given the highest priority. The appointed Safety Leader is tasked with sharing daily safety messages and updates, delivering safety talks, monitoring Safety Card close-outs, conducting inspections and working with HSE advisors. At the end of their assignment period, Safety Leaders are responsible for submitting a report to their supervisors detailing accomplishments and highlighting areas for improvement.

In 2022, our Safety Leaders in Block A organised a driver forum to share insights and learnings from incident evaluations and dash-cam recordings. We also established a Stop Work Authority (SWA) to be exercised when required as part of our commitment to prioritising safety within our daily operations.

In the South Sumatra Region (SSR), we enhanced HSE performance and CHSEMS implementation at the asset level. Aligned with MedcoEnergi's Safety Leadership Programme, Safety Leaders were also appointed from our contractors to conduct HSE campaigns, host knowledge-sharing sessions, lead toolbox meetings and support the closure of the Corrective Action Tracking System (CATS) in our facilities.



MedcoEnergi's Safety Leadership Programme aims to enhance the safety leadership skills of our employees and contractors.

HSE Engagement with Contractors

Maintaining our safety culture requires effective engagement with our contractors. To achieve this, we have developed programmes to instill accountability and promote transparency among our contractors.

Contractor HSE Forum

In 2022, we held the first Integrated Contractor HSE Forum for Medco Oil & Gas assets. This was our first in-person Contractor Forum since the COVID-19 pandemic. The forum emphasised the significance of consistent CHSEMS implementation to maintain a safe and successful business partnership with MedcoEnergi. Attended by our Asset Leadership Team and contractors, the forum provided an opportunity to communicate our commitment to strengthening our safety culture through CHSEMS implementation.



MedcoEnergi's Integrated Contractors HSE Forum, with the theme of "Strengthening Contractor Management Commitment to Improve HSE Culture through CHSEMS Implementation", was opened by MedcoEnergi's Director and Chief Administrative Officer (CAO).

Contractor Management and Leadership Engagement

We hosted a joint HSE engagement session at our Nimr site in Oman, attended by MedcoEnergi employees and senior management representatives from our contractors. This event was attended by more than 200 contractors to participate in the interactive presentations, discussions and HSE on-site observations.

Following a series of site visits, attendees were given the opportunity to provide feedback and recommendations in developing the HSE Management System Programmes for 2023.



The Contractors' Management and Leadership Engagement was attended by our employees and senior management representatives from our contractors at our Nimr Site in Oman.

Managing Contractor HSE in Major Capital Projects

Executing our capital projects involves the implementation of our CHSEMS. In 2022, we initiated a full cycle of CHSEMS-01 to CHSEMS-06 for our Belida Extension and Hiu Phase-2 Projects in South Natuna Sea Block B, from the Engineering, Procurement, Construction and Installation (EPCI) stage.

The CHSEMS process involves several stages, namely the CHSEMS-01 for potential contractors (or "bidders") pre-qualification, CHSEMS-02 for equipment inspection and HSE plan finalisation and CHSEMS-03, CHSEMS-04 and CHSEMS-05 for audits during fabrication and construction activities.

CHSEMS-01

- Evaluating bidders based on their ability to meet over **60% of the Pre-Qualification** (PQ) score and sorting those who pass this criteria.
- Contracting with the successful bidder to become **MedcoEnergi's contractor**.
- Mandating selected contractors to endorse our **HSE Charter**, commit to an **HSE Plan** and develop **Contractor HSE KPIs**.

CHSEMS-02

- **Inspecting contractors' tools and equipment** prior to fabrication activities.
- Finalising contractors' **HSE Plans**.
- **Sharing CHSEMS knowledge** with contractors to ensure compliance with safety guidelines.
- Conducting **pre-mobilisation workshops** for offshore projects.

CHSEMS-03, CHSEMS-04, & CHSEMS-05

- Conducting **on-site audits** during fabrication or construction activities to ensure compliance with HSE Plan.
- **Tracking audit findings** and ensuring they are resolved within the agreed-upon timeframe.

Through our commitment and compliance with the CHSEMS, we safely and successfully delivered the First Gas milestone for the Hiu Phase-2 Project in June 2022, and initiated the start-up for the Belida Extension Project in December 2022.




The MedcoEnergi team ensured contractor compliance with safety regulations (left) and shared insights on CHSEMS (right) to improve workplace safety.

Ensuring Contractor Compliance with HSE Standards at Corridor

At our recently-acquired Corridor asset, we implement HSE programmes which encourage our contractors' involvement to safeguard the safety of our employees, equipment and facilities against potential harm or loss. Our programmes cover a range of topics, including safety intervention, work permit implementation, life-saving rules and waste management. Additionally, we conduct assessments on the implementation of our contractors' HSE Plan on a monthly and semi-annual basis. We involve individuals across all levels, from senior management to site-level managers, to ensure their commitment to safety throughout our operations.




We maintain contractor compliance at Corridor through various activities including regular safety meetings, training sessions and onsite inspections.

Emergency Preparedness

Our incident command system enables us to ensure preparedness in responding effectively to incidents, emergencies or crises. MedcoEnergi's three Tiers of Response Organisation cover our response capabilities across all levels, from asset to senior management level:

- A **Tier-1 response** is a tactical response managed by the Incident Management Team (IMT) at the site level, utilising local resources.
- A **Tier-2 response** is a tactical-support response requiring additional resources and personnel. Our response efforts in such situations involve both the site level IMT and the asset Emergency Management Team (EMT).
- A **Tier-3 response** is activated when a crisis surpasses the limits of the Tier-2 response capability. This response is a strategic corporate response managed by the Crisis Management Team (CMT), involving senior management from both the asset and corporate level.

We have also established Business Continuity Teams for our assets and corporate functions. These teams cooperate to plan and execute recovery efforts following disruption to our business.

Emergency Preparedness in Operating Assets

We regularly practise our emergency systems through rigorous training and simulation exercises. The objective is to demonstrate and ensure that our response measures are efficient, effective and in alignment with industry best practices.

In 2022, our EMT and CMT effectively responded to real-life Tier-1 Incidents, Tier-2 Emergencies and Tier-3 Unified Command events, proving their readiness and improving their response capabilities. These events presented valuable learning opportunities for our teams in enhancing their ability to handle emergencies and crises.

In addition, we conduct regular table-top exercises[1] and wet drills to ensure that response resources are prepared to address emergency situations.



The MedcoEnergi team conducted a wet drill at the Corridor storage tank in preparation for potential spills in the Bangka Strait.

COVID-19 Task Force Performance and Booster Vaccine Programme

In 2020, we established the COVID-19 Task Force, assigned to lead various prevention initiatives aimed at protecting the health and safety of our employees. Key prevention initiatives are highlighted below:

Implemented rigorous **health protocols**	Introduced **COVID-19-related safety guidelines**	Delivered **COVID-19 awareness campaigns** through multiple media such as socialisation, brochures, posters and Short Messaging Service (SMS)
Rolled out **vaccination programmes** for all employees and their family members	Established **a phased plan** for resuming office work and formed Champion programme	Developed specific **business continuation plans** (BCP) for each asset based on recommendations from the COVID-19 Task Force

We supported our employees and their family members by providing both primary and booster vaccinations. In 2022, our vaccination rate was in excess of 95% of our total employees, and we are continuing to administer second booster vaccinations.

Through our collective efforts, we have avoided COVID-19 outbreaks across all of our assets, enabling us to maintain business continuity despite the challenges presented by the pandemic.

[1] Table-top exercises are sessions where participants are facilitated by the EMT and CMT to discuss their roles and responsibilities and develop responses to a series of emergency scenarios.

Alignment of Sustainability Initiatives with UN SDGs

The following table maps our sustainability initiatives for advancing our health and safety culture against UN SDG targets. This mapping does not constitute a claim that MedcoEnergi has measured or set targets for host governments in our operational areas regarding the achievement of UN SDGs.

UN SDGs	Relevant Target	Key Initiatives
	3.4, 3.6, 3.8, 3.9	• Health, Safety and Environment Management System (HSEMS) • Hazard Identification and Implementation of Associated Controls • Emergency preparedness and table-top exercises
	8.8	• HSE campaigns, programmes and initiatives • Contractor HSEMS • Emergency preparedness and table-top exercises

Action Plan

The following action plan is designed to enable us to meet our objectives and continue advancing our health and safety culture. We regularly measure, monitor and report our progress and performance against these actions. This action plan progress report will be the final one referring to the 2018-2022 Sustainability Roadmap. Moving forward, we will focus on the 2023-2027 Sustainability Roadmap.

	Short-Term Actions	Medium-Long-Term Actions	Status
Occupational Health and Safety	To implement a work safety culture towards: 1. Contractor HSE management 2. Hazard identification and risk management 3. Process safety	To achieve zero fatalities in all assets	We achieved zero fatalities in 2022.
		To achieve a lower average Lost Time Incident Rate (LTIR) compared with equivalent industries in Indonesia	• Our 2022 Oil & Gas LTIR was 0.00. The latest IOGP Asia/ Australasia LTIR in 2021 was 0.14. • LTIR for Power Operations was 0.00 • Benchmarking with an equivalent power industry in Indonesia and internationally is unavailable.
		To achieve a lower average Total Recordable Incident Rate (TRIR) compared with equivalent industries in Indonesia	• Our 2022 Oil & Gas TRIR was 0.24. The latest IOGP Asia/ Australasia TRIR in 2021 was 0.69 • TRIR for Power Operations was 0.00 • Benchmarking with an equivalent power industry in Indonesia and internationally is unavailable.
		To complete occupational health hazard assessment in all assets	• All assets continued to implement action items from the assessment.

2022 Awards

Name of Awards	Awarding Body	Description
OIL & GAS		
Operational Excellence Achievement	SKK Migas	Medco Energi Sampang Pty. Ltd. for category Production <10,000 BOEPD
Career Development Monitoring	SKK Migas	Medco E&P Grissik Ltd. received category P2 for Career Development Monitoring
The Best Facility Management	SKK Migas	PT Medco E&P Indonesia
The Best Initiative on Cost Optimization	SKK Migas	JOB Tomori awarded for category Work Programme & Budget <USD 100 million
Security Achievement Award	SKK Migas	JOB Tomori
The Key Performance Indicator Supply Chain Management Award	SKK Migas	All Indonesian offshore and onshore assets received Award for their KPI SCM performance based on SKK Migas assessment of the PSCs
The Best Seismic Activity	SKK Migas	PT Medco E&P Indonesia received the award from SKK Migas Sumbagsel for the Best Seismic Activity category through 2D seismic activities with an area of 125 km
Patra Karya Raksa Tama	Ministry of Energy and Mineral Resources, Directorate General of Oil & Gas	DSLNG recognized for safety development
Patra Nirbhaya Karya Utama	Ministry of Energy and Mineral Resources, Directorate General of Oil & Gas	DSLNG recognized for having zero LTIs.
Adinugraha	Ministry of Energy and Mineral Resources, Directorate General of Oil & Gas	JOB Simenggaris and PT Mitra Energi Gas Sumatra recognized for having zero LTIs.
Patra Nirbhaya Karya Utama	Ministry of Energy and Mineral Resources, Directorate General of Oil & Gas	PT Medco E&P Malaka and PT Medco E&P Lematang recognized for having zero LTIs.
Patra Nirbhaya Karya Madya	Ministry of Energy and Mineral Resources, Directorate General of Oil & Gas	PT Medco E&P Malaka and PT Medco E&P Lematang recognized for having zero LTIs.
The Largest User of Domestic Products	Ministry of Energy and Mineral Resources, Directorate General of Oil & Gas	PT Medco E&P Indonesia received an award as one of the corporate groups being the largest user of Domestic Products
Assessment and Development Programme with Domestic Goods/ Services	Ministry of Energy and Mineral Resources, Directorate General of Oil & Gas	Medco E&P Indonesia awarded an appreciation as a PSC Patron for the Assessment and Expert Team
Subroto Award	Ministry of Energy and Mineral Resources, Directorate General of Oil & Gas	• PT Medco E&P Indonesia, Category Stimulating Revenue Increase in Upstream Oil & Gas Business Through Cost Optimization. • Medco E&P Grissik Ltd., Best company in the Development of HR Competency in the Oil & Gas Subsector • JOB Tomori, Utilization of Flare Gas in Upstream Oil & Gas Business Activities and Sub-Category of Energy Management Special Innovation in Industry and Buildings. • DSLNG, Development of Oil & Gas Work Safety.
Green PROPER	Ministry of the Environment and Forestry of the Republic of Indonesia	JOB Tomori and Medco E&P Natuna Ltd. recognized for their efforts in sustainability and environment and for innovations in community development and empowerment.

Name of Awards	Awarding Body	Description
Blue PROPER	Ministry of the Environment and Forestry of the Republic of Indonesia	Medco Energi Sampang Pty. Ltd., Medco Energi Madura Offshore Pty. Ltd., PT Medco E&P Tarakan, PT Medco E&P Lematang, Medco E&P Grissik Ltd., PT Medco E&P South Sumatra, PT Medco E&P Rimau and DSLNG recognized for compliance in environmental sustainability.
Best Management of the Upstream Oil & Gas State Property (BMN) Award	Ministry of Finance of the Republic of Indonesia	Best completion of certification, awarded to Medco E&P Natuna Ltd. and Anambas Islands Regency Land Office
TrenAsia ESG Excellence 2022	TrenAsia.com	PT Medco Energi Internasional Tbk recognized as winner in the category Oil & Gas for Sustainability.
The 13th IICD Corporate Governance Award 2022	IICD or Indonesia Institute for Corporate Directorship	Most Improved Corporate Governance in the Category of Big Cap for PT Medco Energi Internasional Tbk
Beritasatu and BGK Transparency on Corporate Emissions Reduction Award 2022	BeritaSatu Media and Bumi Global Karbon	PT Medco Energi Internasional Tbk received two Awards in the Green Elite and Gold Plus categories for publicly listed company.
Beritasatu and BGK ESG Awards 2022	BeritaSatu Media and Bumi Global Karbon	PT Medco Energi Internasional Tbk received an Award in the Management B Rating
Sustainability Disclosure Recognition	Thaipat Institute, Thailand	Medco Energi Thailand (Bualuang) Ltd. received an award for outstanding efforts towards Sustainability disclosure and reporting on SDG target
APAC Company of the Year (Upstream)	Asia Pacific Energy Capital Assembly	Recognition for MedcoEnergi for value creation and exceptional operating performance
APAC Deal of the Year	Asia Pacific Energy Capital Assembly	Recognition for MedcoEnergi's successful acquisition of ConocoPhillips Indonesia Assets; Corridor PSC and Transasia Pipeline Company
APAC Executive of the Year	Asia Pacific Energy Capital Assembly	Recognition for MedcoEnergi CEO as the Executive of the Year.
PWI Muaraenim Award	Indonesian Journalists Association (PWI) Muaraenim Regency, South Sumatra	Medco E&P South Sumatra Region received recognition for establishing relations with the member of the press
Musi Banyuasin Regency Government Award	Government of Musi Banyuasin Regency	Medco E&P Grissik Ltd. received an award for its continuous support to local human resource development.
Power		
Gold PROPER	Ministry of the Environment and Forestry of the Republic of Indonesia	PLN Tanjung Jati B, operated by MPI through PT TJB Power Services, recognized for environmental conservation over and above that required by regulation.
Excellence Good Corporate Governance Awards 2022	Warta Ekonomi	Excellence Good Corporate Governance Implementation on Developing Renewable Infrastructure Facilities, (Category: Oil & Gas)
Zero Accident Award	Ministry of Manpower of the Republic of Indonesia	Medco Ratch Power Riau recognized for accident-free work hours and COVID-19 Prevention and Programme with Platinum achievement

OJK Sustainability Reporting Standards and Requirements (SEOJK No. 16/2021)

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		F.30	Customer satisfaction survey on sustainable products and services	Not applicable
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Acronym and Abbreviations

3R	Reduce, Reuse, and Recycle
A&IC	Audit & Integrity Compliance
A&OI	Asset & Operating Integrity
ABC	Anti-Bribery and Corruption
ABMS	Anti-Bribery Management System
ADB	Asian Development Bank
AGMS	Annual General Meeting of Shareholders
AMDAL	Environmental Impact Assessment (Analisis Mengenai Dampak Lingkungan Hidup)
AML	Anti-Money Laundering
AMNT	PT Amman Mineral Nusa Tenggara
APEC	Asia-Pacific Economic Cooperation
API	American Petroleum Institute
ASEAN	Association of Southeast Asian Nations
B+HR	Business and Human Rights
BAT	Best Available Technologies
BBLS	Barrels
BCP	Business Continuation Plans
BEP	Belida Extension Project
BIP	Business Impact Projects
BJI	PT Bio Jatropha Indonesia
BMN	State-owned Goods License
BNSP	National Professional Certification Agency (Badan Nasional Sertifikasi Profesi)
BOC	Board of Commissioners
BOD	Board of Directors
BOE	Barrel of Oil Equivalent
BSR	Business for Social Responsibility
CAO	Chief Administrative Officer
CAPEX	Capital Expenditures
CATS	Corrective Action Tracking System
CCPP	Combined Cycle Power Plant
CCS	Carbon Capture and Storage
CCUS	Carbon Capture, Utilization and Storage
CDP	Formerly the Carbon Disclosure Project, an international non-profit organisation that helps companies and cities disclose their environmental impact
CEO	Chief Executive Officer
CHSEMS	Contractor HSE Management System
CLA	Collective Labour Agreement
CMT	Crisis Management Team
CNG	Compressed Natural Gas
CO2e	Carbon dioxide equivalent
CoC	Code of Conduct
CoI	Conflict of Interest
COO	Chief Operating Officer
COP27	2022 United Nations Climate Change Conference
CST	Corridor Storage Tanker
CSR	Corporate Social Responsibility
CSRM	Corporate Sustainability and Risk Management
DEB	PT Dalle Energy Batam
DIT	Digital Information Technology
DJK-ESDM	Directorate General of Electricity of the Ministry of Energy and Mineral Resources (Direktorat Jenderal Ketenagalistrikan, Menteri Energi dan Sumber Daya Mineral)
E&P	Exploration and Production
ECC	Ethics & Compliance Committee
ELB	PT Energi Listrik Batam
ELO	Ethics Liaison Officer
EMS	Environmental Management System
EMT	Emergency Management Team
EP	Equator Principles
EPE	PT Energi Prima Elektrika
ERM	Enterprise Risk Management
ESDM	Ministry of Energy and Mineral Resources
ESG	Environmental, Social, and Governance
ESHIA	Environmental, Social, and Health Impact Assessment
ESHMP	Environmental, Social and Health Management Plan
EV	Electric Vehicle
FAAP	Finance Apprentice Acceleration Programme
FAMI	Indonesian Oil & Gas Auditor Forum (Forum Auditor Migas Indonesia)
FGD	Focus Group Discussions
FIHRRST	Foundation for International Human Rights Reporting Standards
FORKOPMIDA	District leadership coordination forums (Forum Komunikasi Pimpinan Daerah)
FPIC	Free, Prior and Informed Consent
FPSO	Floating Production Storage and Offloading
FRA	Fraud Risk Assessment
GCG	Good Corporate Governance
GEG	Gas Engine Generator
GHG	Greenhouse Gas
GJ	Gigajoule
GMS	General Meeting of Shareholders
GOI	Government of Indonesia
GRI	Global Reporting Initiative
GTG	Gas Turbine Generator
GTR	Government Travel Expense Requisition

HAOP	Hazard and Operability
HOA	Head of Agreement
HR	Human Resources
HRA	Human Rights Assessment
HRDD	Human Rights Due Diligence
HRGS	Human Resources & General Services
HSE	Health, Safety, and Environment
HSEMS	Health Safety and Environment Management System
IBCSD	Indonesian Business Council for Sustainable Development
ICT	Incident Management Team
IDP	Individual Development Plan
IDR	Indonesian Rupiah
IDX	Indonesia Stock Exchange
IEA	International Energy Agency
IESG	Industry Environmental Safety Group
IFC	International Finance Corporation
ILO	International Labour Organisation
IMO	Integration Management Office
IOGP	International Association of Oil & Gas Producers
IPA	Indonesia Petroleum Association
IPCC	Intergovernmental Panel on Climate Change
IPP	Independent Power Producer
IPPKH	Leasehold of Forest Area Licence (Izin Pinjam Pakai Kawasan Hutan)
IS	Information Systems
ISED	Inclusive Sustainable Economic Development
ISO	International Organisation for Standardization
ISPS	International Port and Ship Security
IT	Information Technology
JOB	Joint Operating Body
KADIN	Indonesian Chamber of Commerce and Industry (Kamar Dagang dan Industri)
KAP PSS - EY	Kantor Akuntan Publik Purwantono, Sungkoro & Surja (A member firm of Ernst & Young Global Limited)
KKKS	Contractor Cooperation Contract (Kontraktor Kontrak Kerja Sama)
KPI	Key Performance Indicator
KPK	Indonesian Corruption Eradication Commission (Komisi Pemberantasan Korupsi)
KWp	Kilowatt peak
KWT	Women Farmer Group (Kelompok Wanita Tani)
KYC	Know-Your-Customer
LEAD	Leadership Essential Development
LSP Migas	Oil & Gas Professional Certification Institute (Lembaga Sertifikasi Profesi Minyak dan Gas)
LSR	Life-Saving Rules
LTI	Lost Time Incident
LTIR	Lost Time Incident Rate
LTP	Long-Term Plan
MBOEPD	Million Barrels of Oil Equivalent Per Day
MCG	PT Medco Cahaya Geothermal
MEB	PT Mitra Energi Batam
MEI	Medco Energi Indonesia
MEMR	Ministry of Energy and Mineral Resources
MEPI	PT Medco E&P Indonesia
MEPM	PT Medco E&P Malaka
MEPN	Medco E&P Natuna Ltd (South Natuna Sea Block B)
MESL	Medco Energi Sampang Pty. Ltd
MLB	Medco Leadership Behaviours
MoEF	Ministry of Environment and Forestry
MOU	Memorandum of Understanding
MPE	PT Multidaya Prima Elektrindo
MPEP	Medco Project Excellence Process
MPI	PT Medco Power Indonesia
MPMA	Medco Project Management Academy
MPSI	PT Medco Power Servis Indonesia
MRPR	PT Medco Ratch Power Riau
MSCI	Morgan Stanley Capital International
MSLDP	Medco Senior Leadership Development Program
MSME	Micro, Small, and Medium-sized Enterprise
MUBA	Musi Banyuasin
MW	Megawatt
MWp	Megawatt peak
NDC	Nationally Determined Contribution
NFAT	National Fisheries Association of Thailand
NGO	Non-governmental organisation
NWOW	New Ways of Working
OADP	Operations Apprentice Development Programme
OE	Operational Excellence
OECD	Organisation for Economic Co-operation and Development
OFAC	Office of Foreign Assets Control
OHS	Occupational Health and Safety
OHSAS	Occupational Health and Safety Assessment Series
OJK	Financial Services Authority (Otoritas Jasa Keuangan)
OSCT	Oil Spill Combat Team
OSRL	Oil Spill Response Limited
OT	Operational Technology

P2P	Procure-to-Pay
PDCA	Plan-Do-Check-Adjust
PDO	Petroleum Development Oman
PFSP	Port Facility Security Plan
PIC	Persons in Charge
PKK	Family Welfare Programme (Pemberdayaan Kesejahteraan Keluarga)
PLN	Indonesian State-owned Electricity Company (Perusahaan Listrik Negara)
PMS	Performance Management System
PPA	Power Purchase Agreement
PPDSM Migas	Oil & Gas Human Resources Centre (Pusat Pengembangan Sumber Daya Manusia Minyak dan Gas Bumi)
PPE	Personal protective equipment
PPP	PT Pembangkitan Pusaka Parahiangan
PROPER	Performance Rating Programme in Environmental Management
PSC	Production Sharing Contract
PSE	Process Safety Events
PT	Limited Liability Company (Perseroan Terbatas)
PV	Photovoltaic
QPR	Quarterly Performance Review
R&D	Research & Development
R&S	Relations and Security
RCP	Representative Concentration Pathway
RO	Reverse Osmosis
RPIA	Women and Children Empowerment House (Rumah Permberdayaan Ibu dan Anak)
SAE	Standards on Assurance Engagement
SAKA	Aceh Anti-Corruption School (Sekolah Anti Korupsi Aceh)
SASB	Sustainability Accounting Standards Board
SCBD	Sudirman Central Business District
SCL	Supervisory Checklist
SCM	Supply Chain Management
SDGs	Sustainable Development Goals
SDS	Sustainable Development Scenario
SEP	Stakeholder Engagement Plan
SKK Migas	Special Task Force for Upstream Oil & Gas Business Activities (Satuan Kerja Khusus Pelaksana Kegiatan Usaha Hulu Minyak dan Gas Bumi)
SMKM	Safety Management System for the Oil & Gas Industry (Sistem Manajemen Keselamatan Migas)
SMP	Security Management Plan
SMS	Social Management System
SoA	Statement of Adherence
SPARING	Continuous Wastewater Quality Online Monitoring (Sistem Pemantauan Kualitas Air Limbah secara Terus Menerus dan Dalam Jaringan)
SPI	Sustainable Performance Improvement
SRMC	Sustainability and Risk Management Committee
SROI	Social Return on Investment
SSC	Shared Services Centre
SSP	Shared Socioeconomic Pathway
SSR	South Sumatra Region
STEPS	Stated Policies Scenario
STP	Sewage Treatment Plant
TCFD	Task Force on Climate-related Financial Disclosures
TCMS	Technical Competency Management System
tCO_2e	Metric tons of carbon dioxide equivalent
TDC	Technical Development Committee
THB	Thailand Baht
TJBPS	PT Tanjung Jati B Power Services
TLV	Threshold Limit Value
TOE	Ton of Oil Equivalent
TPC	Team Performance Contract
TRIR	Total Recordable Injury Rate
UMP	Provincial minimum wage (Upah Minimum Propinsi)
UN	United Nations
UNGP	United Nations Guiding Principles
UNODC	United Nations Office on Drugs and Crime
US	United States of America
USD	US Dollar
VIDA	Virtual International Development Assignment
VP	Vice President
VPSHR	Voluntary Principles on Security and Human Rights
WBCSD	World Business Council for Sustainable Development
WBS	Whistleblowing System
WTC	Waste Treatment Centre
WWTP	Wastewater Treatment Plants

Feedback Form

This Sustainability Report provides an overview of MedcoEnergi's 2021 sustainability performance. We look forward to receiving suggestions for improvement from our stakeholders. Please share your feedback and/or comments about this Sustainability Report by completing this feedback form and returning to us by email, fax, or mail.

Stakeholder Group

- ☐ Shareholders
- ☐ Employee
- ☐ Partners
- ☐ Government & Regulator
- ☐ Bank & Investor
- ☐ Community
- ☐ Customer
- ☐ Media
- ☐ Others, please specify _____

Please choose the most appropriate answer(s) to the questions below:

		Yes	No
1	This report is useful to you	☐	☐
2	This report describes the Company's performance in sustainability development	☐	☐

Please rate the following material aspects based on the level of importance according to your view of MedcoEnergi's sustainability performance (score 1 = most important to 17 = least important).

Local Communities	( )
Labour Practices	( )
Business Ethics/Fair Business Practices	( )
Political and Regulatory Environment	( )
Transparency	( )
Human Rights	( )
GHG Emissions	( )
Environmental Impact of Products and Services	( )
Access to Natural Resources	( )
Procurement Practices	( )
Storage and Transportation	( )
Biodiversity	( )
Effluents and Waste	( )
Material and Resource Use	( )
Water	( )
Privacy and Data Protection	( )
Energy Use	( )

Please provide suggestions/comments for this report:

Thank you for your participation. Kindly send this feedback form to the following address:

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2022 MedcoEnergi Sustainability Report

REACHING NEW HEIGHTS

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